OGDEN MARTIN SYSTEMS, INC.

40 LANE ROAD, CN 2615
FAIRFIELD, NJ 07007-2615

TEL: (201) 882-7236
FAX: (201) 882-4167

BRIAN BAHOR
ASSISTANT VICE PRESIDENT
ENVIRONMENTAL QUALITY MANAGEMENT

AN OGDEN PROJECTS COMPANY

March 13, 1995

Mr. Claire Fancy
Florida Department of Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Subject: Request for Permit Amendment
Ogden Martin Systems of Lake (OMSL)
Permit #AO35-193817

Dear Mr. Fancy:

Please find enclosed an application for an amendment to the OMSL Air Operating Permit for the acceptance of solid waste containing petroleum-based materials. This is a generic application in that it does not represent waste from specific generators. The application, in essence, presents standard procedures for disposing of certain categories of waste, which include:

1) Clean-up materials and debris associated with virgin petroleum spills and tank cleanings;
2) Solid waste contaminated with Used Oil; and,
3) Filters (such as automotive filters, etc.).

We are seeking this amendment based on our positive experience with the Department and the successful processing of similar types of materials at our OMS of Pasco facility, at the request of the Florida Department of Environmental Protection (FDEP) Southwest District during the August 1993 Tampa Bay oil barge spill.

The wastes described in this permit amendment are within the definition of municipal solid waste and can be processed according to the conditions of the OMSL Solid Waste Permit (No. SO35-187342). We believe that the proposed solid waste management strategy provides for the most effective disposal option when considering recycling and environmental impacts, and that the proposed amendment will not require or necessitate any other permit changes. Compliance with the Air Construction Permit will be maintained while processing any of the aforementioned waste streams. If you have any questions, or need further information, please do not hesitate to contact either me or Karen Stepsus at (202) 882-7282.

Very Truly Yours,

Brian Bahor
Asst. Vice President
Environmental Quality Management

3346

NRG/RECOVERY GROUP, INC.
40 LANE ROAD
FAIRFIELD, NEW JERSEY 07007-2615

63-628/631
8

March 17 19 95

PAY TO THE ORDER OF Florida Department of Environmental Protection $ 250^{00}

Two-hundred fifty 00/100 DOLLARS

Barnett Bank
052-008
401 North 14th Street
Leesburg, Florida 34748

FOR _____

Kyle Caudt

⑈003346⑈ ⑆063106268⑆ 15200 20318⑈

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OMSL SUPPLEMENTAL WASTE
PERMIT AMENDMENT REQUEST

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1.0 INTRODUCTION

Ogden Martin Systems of Lake (OMSL) is requesting a permit amendment to allow for the processing of three categories of solid waste commingled with petroleum-based materials. These categories include:

1. Solid Waste commingled with Virgin Petroleum Products
2. Solid Waste commingled with Used Oil Products
3. Filters

The first two aforementioned categories are similar because both are comprised of two key components: 1) solid waste, and 2) petroleum contamination. The way in which they differ is due to the classification of the petroleum content. Category #1 encompasses "Virgin Petroleum Products", while Category #2 includes "Used Oil". From a regulatory perspective, waste contaminated with Used Oil is managed differently than waste containing virgin oil. Each will be discussed in subsequent sections.

This request for a permit amendment is a result of increasing requests from generators, who are looking for an alternative to landfill disposal for their oily wastes; and, our past experience in which similar waste materials were successfully processed at other Ogden Martin Systems (OMS) facilities. Oily wastes from the Tampa Bay Barge Spill (August 1993) were successfully processed (with your Department's concurrence) at OMS of Pasco. A copy of the Florida Department of Environmental Protection (FDEP) Southwest District's Approval Letter for the Tampa Bay barge oil spill is presented in Appendix 1. OMS is also aware that another modern municipal waste combustion facility in Florida has been granted a permit approval to process this type of waste material. Appendix 2 contains an excerpt of the permit approval for the McKay Bay Refuse-to-Energy Facility.

This application includes the following sections:

1. A detailed description of each waste category;
2. An overview of the OMSL Resource Recovery Facility;
3. A comprehensive review of facility permits and analysis of applicable regulations (both Federal and State requirements);
4. A description of procedures to be followed by OMSL to guarantee regulatory/environmental compliance;
5. Supporting documentation regarding the Tampa Bay barge oil spill, including actual throughput and air emission data obtained directly from the Pasco facility during the processing the spill material; and
6. Draft permit amendment language, which best describes the subject matter of this request, while demonstrating full compliance with OMSL's Air Operating Permit and all applicable federal and state requirements.

2.0 WASTE STREAM OVERVIEW

Three categories of solid waste commingled with petroleum-based materials are being considered for this permit amendment, which include:

1. Solid Waste commingled with Virgin Petroleum Products (such as, clean-up materials and debris, associated with virgin petroleum spills and/or tank cleanings);
2. Solid Waste commingled with Used Oil Products, and
3. Filters (including non-terne and other filters).

The physical and chemical components of each of these waste categories are described below.

2.1 SOLID WASTE COMMINGLED WITH VIRGIN PETROLEUM OR USED OIL

2.1.1 Description of the Solid Waste Component

The solid waste component of Category #1 and #2 will include: 1) absorbing media, and 2) miscellaneous debris. The absorbing media will encompass a variety of product forms, such as dry granular solids, or solids enclosed in fiber socks, pads, pillows, booms or bags. The absorbents, themselves, will be comprised of cellulose fibers, polypropylene, silica-based ingredients, diatomaceous earth, etc. The specific type of absorbent used will depend upon the generator and the specific disposal application (ie. spill clean-up, tank cleaning, or routine maintenance).

The other solid waste component of these waste streams will be comprised of miscellaneous debris, which may include rags, wipers, coveralls, personnel protective equipment, gloves, etc. These components will be comprised of natural fibers, cotton, polyethylene, etc.

Both the absorbent media and the miscellaneous debris can be characterized as non-hazardous solid waste by generator knowledge. A review of the Material Safety Data Sheets (MSDSs) for absorbents typically used during spill clean-up activities indicates that the major constituents of these materials are not Listed hazardous constituents, nor do they exhibit any of the hazardous characteristics, as defined by Federal Regulation (40 CFR Part 261), and Florida Hazardous Regulation (17-730). The components of the debris stream are also non-hazardous based upon a review of generator information. A detailed regulatory assessment will be presented in Section 4.0.

2.1.2 Description of the Petroleum Component

Petroleum-based products resulting from spills, tank cleanings or routine maintenance will be contained in the absorbents, and found in small concentrations on the debris.

Florida Department of
Environmental Protection

Memorandum

DARM-PER/GEN-10

TO: John Ruddell, Director
Division of Waste Management

District Air Program Administrators
County Air Program Administrators
Bureau of Air Regulation Engineers

FROM: Howard L. Rhodes, Director
Division of Air Resources Management

DATE: March 31, 1994

SUBJECT: Guidance on Burning Used Oil
Containing Low Concentrations of PCBs

The Department will use the 40 CFR 761 federal regulations on polychlorinated biphenyls (PCBs) as the basis for regulating the burning of "on-specification" used oil containing less than 50 ppm PCBs.

Used oil containing less that 50 ppm PCBs is an excluded product. Excluded PCBs products as applied to used oil means: oils which have a concentration of less than 50 ppm PCBs; were legally available before October 1, 1984; and have not been mixed with a material containing more than 50 ppm PCBs.

Used oil containing 50 ppm or more PCBs is not an excluded PCB product and is subject to the Toxic Substance Control Act (TSCA) regulations, 40 CFR 761. These regulations specify precisely how PCB contaminated material can be disposed of. EPA would be involved in approving the burning of used oil containing more than 50 ppm PCBs.

The following is a brief summary of the federal regulations (40 CFR 761) concerning burning of used or waste oil (products primarily derived from petroleum which include but are not limited to fuel oils, motor oils, gear oils, cutting oils, transmission fluids, hydraulic fluids, dielectric fluids, etc.) with low concentrations (less 50 ppm) of PCBs for energy recovery.

40 CFR 761, Polychlorinated Biphenyls; Exclusions, Exemptions and Use Authorizations, includes requirements for the burning of used oil with low concentrations of PCBs (less 50 ppm) for energy recovery. Some of the requirements, explained in the preamble of this federal rule that was published in the June 27, 1988, Federal Register, are:

1. For regulatory purposes used oil fuel is presumed to contain PCBs above the detection limit of 2 ppm. These regulations define detectable as meaning the practical limit of quantification. (40 CFR 761.20(e)(2))

2. The detection limit is defined as 2 ug/g from any resolvable gas chromatographic peak, i.e. 2 ppm. The American Society of Testing and Materials (ASTM) analytical methods for PCBs referenced in 40 CFR 761.60(a)(3)(iii)(B)(6) is ASTM D-808-81 for chlorine. (Note that some regulations list a lower PCB detection concentration with a different analytical method). (40 CFR 761.3)

3. A claim that used oil fuel does not contain quantifiable levels ($\geq$2 ppm) of PCBs must be documented by analysis or other information. The first person making the claim that the used oil does not contain PCBs is responsible for furnishing the documentation. The documentation can be tests, personal or special knowledge of the source and composition of the used oil, or a certification from the person generating the used oil claiming that the oil contains no detectable PCBs. (40 CFR 761.20(e)(2)(i))

4. Used oil containing less than 50 ppm PCBs is an excluded PCB product, but is subject to restrictions on use of PCB containing oil as a fuel. (40 CFR 761.3 (4) and 761.20(e))

5. Used oil containing less than 50 ppm PCBs may be burned in an industrial/electrical utility boiler or industrial furnace and other equipment as defined in 40 CFR 260.10 or referenced in Volumes I or II of PB-87-173-837, National Technology Information Service (NTIS), without a federal permit. (40 CFR 761.20(e)(3))

6. Used oil containing any detectable quantities of PCBs ($\geq$2 ppm) cannot be used as a sealant, coating, or dust control agent and cannot be burned in a non-industrial boiler or furnace (boilers in hotels, offices, laundries, service stations, greenhouses, colleges, hospitals, schools, prisons, etc.). (40 CFR 761.20(d))

7. RCRA approved boilers (industrial boilers and electric utilities) and industrial furnaces (cement kilns, phosphate kilns, aggregate kilns, blast furnaces, asphalt plants, phosphate rock dryers, etc.) are among the facilities that can burn used oil with less than 50 ppm PCBs for energy recovery. They can only burn used oil while operating at their normal temperature. They cannot burn used oil containing PCBs during startup or shutdown. (40 CFR 761.20(e)(3))

8. Automobile manufacturers may burn used oil containing PCBs that they generate in their own space heaters. Other space heaters are not allowed to burn used oil containing detectable quantities of PCBs (≥ 2 ppm). (40 CFR 761.20(e)(1)(iii))

9. An eligible burner (person burning the used oil) must provide the marketer (person selling the used oil) with a one time written notice certifying that he will burn the used oil that is presumed to contain low concentrations of PCBs (2 to 50 ppm) in a qualified combustion device (40 CFR 279.61 and 40 CFR 260.10). The notice must state that EPA has been given a description of the used oil management activities and an industrial/electrical utility boiler or industrial furnace will be used to burn the oil. (40 CFR 761.20(e)(3))

Our only grounds at this time to limit the burning of used oil containing less than 50 ppm PCBs would need to be based on federal regulations or public health concern. The applicant will need to furnish the maximum PCBs content of the used oil that the source will burn for the Department to determine which regulations are applicable. Only industrial/electric utility boilers and industrial furnaces can burn used oil containing 2 to 50 ppm PCBs in Florida. EPA has concluded that the burning of used oil containing less than 50 ppm in an utility or industrial boiler and furnace is unlikely to cause unreasonable risk of injury to human health or the environment.

Based on this information, the Division of Air Resources Management has concluded that the burning of used oil with a PCB content of less than 50 ppm is allowed in a industrial/electric utility boiler or an industrial furnace by the federal regulations. "On-specification" used oil containing less than 2 ppm PCBs can be burned in any combustion device (industrial or nonindustrial) if authorized by a Department permit. The PCB content shall be determined using EPA, DEP, or ASTM approved methods.

For used oil containing 2 to 50 ppm PCBs, the Department's air permits must specifically state in a permit condition that used oil can be burned and if the used oil is "on-specification" or "off-specification". It should specify the maximum concentration of PCBs (<50 ppm unless otherwise specified by the applicant). It should also include the maximum quantity of used oil to be burned. The permit shall also require a copy of any applicable marketer's notice or EPA notification for the Department's files. No additional public notice shall be required for a source as described above to burn used oil containing up to 50 ppm PCBs.

HLR/CHF/wh

Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Bob Martinez, Governor | Dale Twachtmann, Secretary | John Shearer, Assistant Secretary

December 10, 1990

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Gary K. Crane, Ph.D.
Environmental Permitting
Ogden Martin Systems, Inc.
40 Lane Road
Fairfield, New Jersey 07007-2615

Dear Dr. Crane:

Re: Air Construction Permit Amendment
AC 35-115379, PSD-FL-113
Lake County WTE Facility

In order to clarify the definition of municipal solid waste to include biohazardous waste, and to include specific conditions of compliance for the burning of biohazardous waste, the referenced permit is hereby amended with the following changes:

FROM: EXISTING PROJECT DESCRIPTION - For the construction of two (2) 250 ton per day combustors which will be fueled by municipal solid waste and wood chips.

TO: REVISED PROJECT DESCRIPTION - For the construction of two 250 ton-per-day combustors which will be fueled by wood chips and municipal solid waste which can, by definition, include biohazardous waste. A specially designed conveyor is to be constructed to transport boxed biohazardous waste from tipping floor to combustor feed hopper so that biohazardous waste is not mixed with other municipal solid waste until it enters the feed hopper.

FROM: SPECIFIC CONDITION NO. 1.c. The design furnace mean temperature at the fully mixed zone of the combustor shall not be less than 1,800°F.

TO: SPECIFIC CONDITION NO. 1.c. The design furnace mean temperature at the fully mixed zone of the combustor shall be no less than 1800°F for a combustion gas residence time of at least one second.

FROM: SPECIFIC CONDITION NO. 1.e. The MWC shall be fueled with municipal solid waste or wood chips. Other wastes shall not be burned without specific prior written approval of Florida DER.

TO: SPECIFIC CONDITION NO. 1.e. The MWC shall be fueled with wood chips or municipal solid waste which can include biohazardous waste. Radioactive waste may not be burned unless the combustor has been issued a permit or the waste is such quantity to be exempt in accordance with Department of Health and Rehabilitative Services (HRS) Rule 10D-91 or 10D-104.003, F.A.C. Hazardous waste may not be burned unless the combustor has been issued a permit or the waste is of such quantity to be exempt in accordance with Department Rule 17-30, F.A.C. Other wastes and special wastes shall not be burned without specific prior written approval of the Florida DER.

FROM: SPECIFIC CONDITION NO. 1.g. Auxilliary fuel burner(s) shall be used at start up during the introduction of MSW fuel until design furnace gas temperature is achieved.

TO: SPECIFIC CONDITION NO. 1.g. Auxilliary fuel burner(s) shall be used at start up during the introduction of MSW fuel (other than biohazardous) until design furnace gas temperature is achieved. Incineration of biohazardous waste shall not begin until the combustion chamber temperature requirement of 1800°F is attained. All air pollution control and continuous emission monitoring equipment shall be operational and functioning properly prior to the incineration or ignition of waste and until all the wastes are incinerated. During shut down, the combustion chamber temperature requirement shall be maintained using auxilliary burners until the wastes are completely combusted.

ADD: SPECIFIC CONDITION NO. 1.i. The combustor shall be fed so as to prevent opening the combustor to the room environment.

ADD: SPECIFIC CONDITION NO. 1.j. The applicant shall submit a copy of a certificate verifying the incinerator operators' satisfactory completion of a Department-approved training program prior to issuance of the operating permit.

FROM: SPECIFIC CONDITION NO. 3.a. Particulate: 0.0150 grains/dscf corrected to 12% CO_2.

TO: SPECIFIC CONDITION NO. 3.a. Particulate: 0.0150 grains/dscf corrected to 12% CO_2 or 0.020 grains/dscf corrected to 7% O_2, whichever is less.

FROM: SPECIFIC CONDITION NO. 3.d. Carbon Monoxide: 200 ppmdv corrected to 12% CO_2, 4-hr rolling average.

TO: SPECIFIC CONDITION NO. 3.d. Carbon Monoxide: 100 ppmdv corrected to 7% O_2 on an hourly-average basis.

ADD: SPECIFIC CONDITION NO. 3.k. Hydrochloric Acid: 50 ppmdv, corrected to 7% O_2 on a three hour average basis; or shall be reduced by 90% by weight on an hourly average basis.

This letter or a copy of this letter must be attached to the permit and becomes a part of that permit. Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

Dale Twachtmann
Secretary

CERTIFICATE OF SERVICE

This is to certify that this PERMIT AMENDMENT and all copies were mailed before the close of business on December ~~10~~ 12, 1990 to the listed persons.

FILING AND ACKNOWLEDGEMENT
FILED, on this date, pursuant to 120.52(9), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Kyra Jobe 12-12-90
(Clerk) (Date)

DT/CP
c: C. Collins, CF District
J. Harper, USEPA
C. Shaver, NPS
Lake County Board of County Commisioners

Post-it® Fax Note 7671	Date 3/24	# of pages ▶ 1
To Alan Zahm	From John Reynolds	
Co./Dept. Central District	Co. DEP-BAR	
Phone #	Phone # SC 278-1344	
Fax #	Fax #	

OGDEN MARTIN SYSTEMS, INC.

[illegible] LANE ROAD, CN 2615
FAIRFIELD, NJ [illegible]-2615

TEL 201-882-72[illegible]
FAX 201-882-4167

BRIAN BAHOR
ASSISTANT VICE PRESIDENT
[illegible] MANAGEMENT

RECEIVED
MAR 20 1995
Bureau of Air Regulation

March 13, 1995

Mr. Claire Fancy
Florida Department of Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Subject: Request for Permit Amendment
Ogden Martin Systems of Lake (OMSL)
Permit #AO35-193817

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3) Filters (such as automotive filters, etc.).

We are seeking this amendment based on our positive experience with the Department and the successful processing of similar types of materials at our OMS of Pasco facility, at the request of the Florida Department of Environmental Protection (FDEP) Southwest District during the August 1993 Tampa Bay oil barge spill.

The wastes described in this permit amendment are within the definition of municipal solid waste and can be processed according to the conditions of the OMSL Solid Waste Permit (No. SO35-187342). We believe that the proposed solid waste management strategy provides for the most effective disposal option when considering recycling and environmental impacts, and that the proposed amendment will not require or necessitate any other permit changes. Compliance with the Air Construction Permit will be maintained while processing any of the aforementioned waste streams. If you have any questions, or need further information, please do not hesitate to contact either me or Karen Stepsus at (202) 882-7282.

Very Truly Yours,

Brian Bahor
Asst. Vice President
Environmental Quality Management

Possible sources of the petroleum-based waste may include, but are not limited to, service stations, fueling depots, manufacturing departments, laboratories, tank cleanings, equipment overflows and plumbing leaks. Spill wastes may originate from bulk petroleum and liquid fuel transport trucks or emergency response vehicles, such as fire, police, Hazardous Materials (HAZMAT) vehicles. Spill waste can emanate from either land or sea occurrences.

It is anticipated that the petroleum component of the waste will include motor oils, fuel oils (including all grades of diesel fuels), residual fuel oils (Nos. 4, 5 and 6), kerosene and jet fuels. The materials listed were chosen as representative types of fuels that may be found in absorbents and debris for the purpose of this amendment. The generators process knowledge and/or analytical information will be used to define the source(s) and characteristics of the fuel component of the waste. For all three petroleum waste categories, the generator will have to certify that there are no free liquids present in the waste stream.

The generator will be required to certify that the waste is non-hazardous before the material will be considered for disposal at OMSL. If the waste is classified by the generator as solid waste containing used oil, it will be managed as such, pursuant to the Federal requirements of 40 CFR Part 279 (or state-adopted equivalent). OMSL does not propose, nor intend to accept any of the following wastes containing Used Oil: 1) Liquid used oil from sources other than waste oil generated at the OMSL site; 2) Mixtures of Used Oil and Listed Hazardous Wastes; and, 3) Mixtures of Used Oil and materials that exhibit hazardous characteristics other than ignitability.

Some of the aforementioned fuel components are already considered to be non-hazardous according to definitions in Federal Regulations and Florida Hazardous Regulations. A review of the MSDSs for fuel components, indicates that they do not contain hazardous constituents. Some do exhibit the characteristic of ignitability (such as, home-heating oils, kerosene and jet fuels) when the fuel is present in liquid form.

Since the wastes delivered to OMSL for disposal will not contain free liquid petroleum constituents, and the liquid portions of the petroleum waste will be contained or absorbed in the absorbent media, the combined waste stream will not exhibit the ignitability characteristic. If the non-hazardous, non-ignitable characteristic cannot be certified by the generator, the material will not be accepted by OMSL for disposal.

2.2 INTERNALLY-GENERATED USED OIL

As a result of internal operations, such as equipment changeout activities, OMSL generates approximately twenty-five (25) gallons of used oil per month. Currently, this liquid used oil is sent to an off-site recycler, in accordance with Florida Used Oil Regulations, Chapter 17-710. Based upon the management practices set forth in 40 CFR Part 279 (or state-adopted equivalent), any used oil recycler can transport the used oil generated at OMSL to a similar energy recovery facility as a fuel. From a practical standpoint, OMSL is capable of processing its' own internally-generated used oil through combustion and energy recovery. The use of an off-site recycler would not be warranted if the proposed amendment is finalized.

The quantity of internally generated used oil (approximately twenty-five gallons per month) is insignificant when compared to the 15,840 tons of waste processed at the facility on a monthly average. The small amount of used oil will not impact facility operations or stack emissions. The internally-generated used oil will be thoroughly mixed in the refuse pit with other municipal solid waste (MSW) in accordance with normal operating procedures. OMSL will maintain the records required pursuant to 40 CFR Part 279 (or state-adopted equivalent) to document this proposed procedural change. OMS will not accept used oil in liquid form from outside generators.

2.3 FILTER WASTES

This category of waste includes a variety of filter applications: automotive filters, lube oil filters, hydraulic filters, engine filters, air filters, etc. Sources include automotive, truck, aircraft and railroad engine filters. The internal constituents of the filters can range from paper to metal mesh. The type of filter (or material of construction) will dictate applicable waste management regulations.

For example, non-terne automotive filters are considered solid waste and exempt from hazardous determination, provided that they are gravity hot-drained for twelve (12) hours, crushed or dismantled, so that no free-flowing oil remains, (according to Federal regulation 40 CFR Part 261.4 (b)(13), or state-adopted equivalent filter management requirements. Non-terne filters would be acceptable at OMSL if the generator can certify that the above standards are met. Terne filters are defined as filters that have housings constructed of an alloy of lead and tin. Terne filters and other filters that do not meet the non-terne definition, will be required to be characterized per Federal Hazardous Waste regulations (40 CFR Part 261) and Florida Hazardous Waste Regulations, either by generator process knowledge or analytical testing.

Once properly characterized, OMSL will enable two modes of recycling when processing these filters: 1) energy recovery, and 2) ferrous recovery. These recycling efforts appear to be the best waste management practices for these types of waste materials.

3.0 FACILITY DESCRIPTION

OMSL was permitted under the Prevention of Significant Deterioration (PSD) program for Municipal Solid Waste Combustion (MWC) facilities, and is equipped with state of the art pollution control systems. A copy of the OMSL Air Operating Permit (No. A035-193817) is presented in Appendix 3.

The semi-dry scrubbing system, inclusive of the pulse jet fabric filter, would still qualify as Best Available Control Technology (BACT) for the control of acid gases and particulates. The OMSL facility began commercial operation in 1990 and contains two MWC units, each with an individual throughput capacity of 288 tons/day for a total facility capacity of 576 tons/day (annual average).

The combustion units employ the Martin GmbH combustion technology. Each MWC unit is equipped with a spray dryer reactor vessel for acid gas control (Semi-Dry Scrubber) and a pulse jet fabric filter for particulate control. Flue gases are monitored for Sulfur Dioxide (SO_2), Carbon Monoxide (CO) and Opacity by a continuous emissions monitoring (CEM) system dedicated to each unit in accordance with 40 CFR Part 60, Appendix B. The combustion units generate steam used to produce 14.5 Megawatts of electricity, which is sold to the local utility. Appendix 4 provides an overview of the OMSL waste-to-energy process.

Appendix 4 also includes a description for the OMS of Pasco facility, which is the basis of the analyses provided herein. OMS of Pasco contains three MWC units, each with an individual throughput of 350 tons/day for a total facility capacity of 1050 tons/day. OMS of Pasco utilizes the same Martin GmbH combustion technology as OMSL, and is also equipped with semi-dry scrubbers and a pulse jet fabric filter air pollution control system.

The information provided below identifies some of the benefits of utilizing OMSL to process oily wastes:

- OMSL is equipped with a large concrete bunker to store incoming wastes. All wastes are stored inside this bunker until fed to the combustion units as fuel. This storage practice prevents any waste, including the petroleum-contaminated solid waste from contacting surface solid or groundwater sources. Additionally, all wastes are continually mixed inside the waste storage bunker by a crane grapple to provide for a uniform waste stream composition prior to feeding the combustion units.

- Discrete waste deliveries of municipal solid waste of any single waste category (such as the spill clean-up material) will always by thoroughly mixed in the storage pit with other municipal solid waste. This procedure is dictated by standard facility operating procedures and will always occur prior to placing the waste in the charging hopper of a combustor. Thorough mixing before combustion is applicable to all waste deliveries to minimize variation in fuel characteristics that are naturally inherent in municipal solid waste.

- The OMSL Waste-to-Energy process "recycles" the energy content of this waste for the production of electricity. The petroleum component of the oily solid waste stream cannot be extracted for re-refining or other reclamation activities like that of liquid Used Oils. Therefore, OMSL's process recycles the maximum potential fuel value of this waste stream.

- OMSL is equipped with advanced air pollution and combustion control systems to maximize the destruction of the petroleum constituents of the solid waste while continuously monitoring and controlling their emissions.

- Additionally the OMSL facility is equipped with a backend ferrous recovery system to recycle any metal constituents in the waste, such as filter housings or cannisters.

- The OMSL combustion process converts the used oil solid waste into an inert ash residue. The ash residues are tested in accordance with FDEP regulation Chapter 17-702, and are disposed in a secure ash monofill. Therefore, the final, safe disposal of all the residue is ensured by this process.

4.0 PERMIT REVIEW AND REGULATORY ANALYSIS

4.1 PERMIT APPLICABILITY

OMSL was issued an air construction permit on February 24, 1988. The OMSL Air Operating Permit is included in Appendix 3. The conditions of the permit were considered for this permit amendment request included Specific Condition Nos. 1.c. and 1.d. An explanation of the relevancy of each is provided as follows:

Specific Condition No. 1.c. (Amended December 12, 1990):

> "The MWC shall be fueled with wood chips or municipal solid waste which can include biohazardous waste. Radioactive waste may not be burned unless the combustor has been issued a permit for such burning or the waste is such quantity to be exempt to accordance with Department of Health and Rehabilitative Services (HRS) Rule 10D-91 or 10D-104.003, F.A.C. Hazardous waste may not be burned unless the combustor has been issued a permit for such burning or the waste is of such quantity to be exempt in accordance with Department Rule 17-30, F.A.C. Other wastes and special waste shall not be burned without specific prior written approval of the Florida DER."

OMSL has reviewed the FDEP definition of Special Waste, as found in the last sentence of Specific Condition No. 1.c. The FDEP definition of Special Waste includes Used Oils; however, the context in which it is applied refers only to disposing of Used Oil in landfills. Moreover, Special Waste is defined in FDEP regulation 17-701 as Solid Waste. Therefore, it is not clear whether the waste streams pursuant to this permit amendment request can be classified as Special Waste (as defined by FDEP), if these wastes are to be disposed of at a Waste-to-Energy facility, (as opposed to a landfill). Nonetheless, OMSL is assuming a conservative interpretation of the permit condition, and has proposed revised language to incorporate the waste streams discussed herein. Draft permit language that incorporates the conservative interpretation is presented in Section 7.1.

Specific Condition No. 1.d.:

> "Auxiliary fuel burners shall be fueled only with distillate fuel oil or gas (e.g., natural or propane). The annual capacity factor for fuel oil or gas shall be less than 10%, as determined by 40 CFR 60.43b(d). If the annual capacity factor for fuel oil or gas is greater than 10%, the facility shall be subject to 40 CFR 60.44b, standards for nitrogen oxides."

OMSL asserts this provision is not applicable since the proposed permit amendment does not include a request to accept fuel oil or gas (natural or propane) as a fuel substitute to municipal solid waste.

The material subject to this permit amendment request is solid waste that has been mixed with a petroleum product. Furthermore, no free liquids will be included in the delivery of these wastes. Regarding internally-generated used oil, this waste is not considered, nor will be used as an auxiliary fuel. Since the quantity to be disposed of is so small compared to the actual tonnage of refuse received, the impact on operating conditions is insignificant.

4.2 REGULATORY APPLICABILITY

The following discussions address applicable federal and state regulations that may be associated with this permit amendment request. There are two major regulatory programs which must be considered when accepting the subject waste streams: 1) Non-Hazardous Determination (40 CFR Part 261) and 2) Used Oil Management Standards (40 CFR Part 279). 40 CFR Part 279 is included in Appendix 5.

Solid waste mixed with virgin petroleum products must be reviewed prior to acceptance to determine if the material can be classified as a hazardous waste. If the material is characterized as a hazardous waste, it will not be accepted. Solid wastes commingled with used oil must be reviewed for applicability under the federal Used Oil Management Standards of 40 CFR Part 279 (or state-adopted equivalent). As discussed in the Section below, solid wastes mixed with Used Oils will be handled in accordance with 40 CFR Part 279 (or state-adopted equivalent).

4.2.1 Federal Regulatory Review

Federal Hazardous Waste Regulations (40 CFR Part 261)

The Federal Hazardous Waste Regulations have been adopted by FDEP in Chapter 17-730, and are included in Appendix 6. The state-adopted (federal) Hazardous Waste regulations govern the generic waste categories of: 1) Solid waste commingled with virgin petroleum products; 2) used oil waste material previously defined as "oily waste" (ie. solid waste component of a mixture of used oil and solid waste that was separated from the used oil); and, 3) filter wastes (except non-terne filters). Categories #1 and #3 must be reviewed for a hazardous determination (40 CFR Part 261). If any of the aforementioned materials are considered hazardous, they will not be accepted at OMSL.

Federal Used Oil Management Standards (40 CFR Part 279)

Solid wastes that cannot be separated from the used oil component must be managed according to 40 CFR Part 279 (Used Oil Management Standards). 40 CFR Part 279 is presented in Appendix 9. For the purposes of this discussion, the context in which the term "Used Oil" is applied shall include solid wastes mixed with Used Oils, as stipulated in 40 CFR Part 279.10(c) (i.e., "Mixtures of Used Oil and non-hazardous waste are subject to regulations as Used Oil under this Part"). In order to ensure compliance with Federal Regulation 40 CFR Part 279, "Standards for the Management of Used Oil", OMSL has obtained an EPA Identification Number (FLD984258731). Notification and tracking requirements set forth in the federal Used Oil Regulation will also be observed by OMSL. This includes furnishing the generator with a one-time written notice, certifying that OMSL has notified the EPA of Used Oil management activities. OMSL will also maintain records of each Used Oil shipment that will be accepted for processing at our facilities.

Also, in order to fulfill the requirements of 40 CFR Part 279, OMSL will request that generators comply with Subpart C (Standards for Used Oil Generators), and wastes brokers comply with Subpart E (Standards for Used Oil Transporters and Transfer Facilities) of Part 279. Generators will also be required to demonstrate whether their wastes is classified as on-specification versus off-specification fuel. Solid Waste containing Used Oil will not be accepted for processing if the federal requirements are not fulfilled by all parties involved in the delivery and disposal of this type of waste material.

4.2.2 State Regulatory Applicability

The following FDEP Chapters were reviewed for this permit amendment request:

- Solid Waste Management Facilities Regulations: Chapter 17-701
- Used Oil Management Regulations: Chapter 17-710
- Hazardous Waste Regulations: Chapter 17-730

Solid Waste Management Facilities Regulations: Chapter 17-701

As provided in Chapter 17-701 of Florida's Solid Waste Management Regulations, solid waste is defined as:

> "Garbage, refuse, yard trash, construction and demolition debris, white goods, special wastes, ashes, sludge or other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from domestic, industrial, commercial, mining, agricultural, or governmental operations. Materials not regulated as solid waste pursuant to this Chapter are: nuclear source or byproduct materials regulated under Chapter 404, F.S., or under the Federal Atomic Energy Act of 1954 as amended; suspended or dissolved materials in domestic sewage effluent or irrigation return flows, or other regulated point source discharges; regulated air emissions; and fluids or wastes associated with natural gas or crude oil exploration or production."

Special Wastes are defined as:

> "Solid waste that can require special handling and management, including but not limited to white goods, waste tires, used oil, mattresses, furniture, lead-acid batteries, asbestos, and biological wastes."

Used Oil has the meaning given in Chapter 17-710.200 of the Florida Used Oil Regulation.

Based on the regulatory definitions provided in Chapter 17-701, Used Oil is considered a special waste category included within the solid waste definition. Furthermore, 17-701.300 (Prohibitions) only restricts used oil as a special waste when disposed of in a landfill facility (17-701.300(8)). As such the FDEP Solid Waste Management Facility regulations contain no prohibitions of this material at Waste-to-Energy facilities provided it can be demonstrated that the "manner in which the solid waste is disposed does not cause air quality to be or water quality standards to be violated." In this regard we have provided a emission impact analysis in Section 6.0 based on the maximum throughput accepted during the Tampa Bay Oil Barge Spill. The data demonstrates that no increase in emissions occurred during the time in which the oil spill waste was processed.

Used Oil Management Regulations: Chapter 17-710

OMSL has contacted FDEP Hazardous Waste Management Section and learned that Chapter 17-710 "Used Oil Management" will be amended to comply with the 40 CFR Part 279 Federal Regulations. Appendix 5 includes the Federal Used Oil Management Standards. When adopted, OMSL will fully comply with all "Used Oil Management Standards" included in Chapter 17-710. In this regard, OMSL has reviewed the existing FDEP Used Oil management requirements to determine their applicability to this permit amendment request.

The following are definitions incorporated into the existing FDEP used oil rules:

> "Used Oil means any oil which has been refined from crude oil or synthetic oil and, as a result of use, storage, or handling has become unsuitable for its original purpose due to the presence of impurities or loss of its original properties, but which may be suitable for further use and is economically recyclable".
>
> "Oily Wastes means those portions of a used oil shipment which are separated from the used oil and may by discarded after appropriate testing and in compliance with other applicable state and local requirements. Oily wastes include, but are not limited to, wastewaters, centrifuge solids, filter residues or sludges, bottom sediments, tank bottoms, and adsorbents resulting from used oil handling or processing".

Further review of Chapter 17-710 makes no further reference to the disposal of "Oily Wastes" except for Section 17-710.400(3) which prohibits "Used Oil" and "Oily Wastes" from being mixed for the purpose of landfilling and 17-710.400(2) which states:

> "No person may collect, transport, store, recycle, use or dispose of used oil or oily wastes in a manner which endangers human health or the environment."

The remaining prohibitions pertain to "Used Oil" disposal activities as defined for "Used Oils", which is not applicable to this permit amendment request.

Based on our analysis, the only applicable criteria for handling and processing "Oily Wastes" as provided for in FDEP regulation is that requirement iterated in the definition of "Oily Wastes" (i.e., portions of used oil shipments which are separated from the used oil may be discarded after appropriate testing and in compliance with other applicable state and local requirements). In this regard OMSL has established acceptance criteria, documentation and recordkeeping procedures for demonstrating compliance. This mechanism will ensure all wastes are accepted and processed in compliance with applicable federal, state and local requirements.

Hazardous Waste Regulations: Chapter 17-730

The Florida Hazardous Waste Regulations, Chapter 17-730, incorporates the Federal Hazardous Waste Regulation (40 CFR Part 261) by reference. A copy of the Florida Hazardous Waste regulations is provided in Appendix 6. Therefore, in accordance with the Florida Hazardous Waste Regulations, OMSL will not accept solid waste mixed with virgin petroleum products if the subject waste stream can be determined a hazardous waste pursuant to 40 CFR Part 261. This procedure is outlined in Section 5.0 "Acceptance Criteria for Waste Materials". This shall ensure that OMSL, in accepting this waste stream, will be in compliance with Federal and State Regulations and any prohibitions stipulated in OMSL's Air Operating Permit.

5.0 ACCEPTANCE CRITERIA FOR WASTE MATERIALS

It is proposed that solid wastes containing Used Oil or Virgin Petroleum products, will only be accepted for processing if the generators meet certain documentation requirements of OMSL that 1) Comply with the requirements of Federal Regulation 40 CFR Part 279 (until adopted by Florida DEP) and, 2) comply with FDEP Hazardous Waste Regulation 17-730. The OMS requirements are described below:

5.1 OMS DOCUMENTATION REQUIREMENTS

Documentation describing the type of solid waste stream to be accepted will be submitted to OMSL by the generator prior to delivery of the waste. This documentation shall include, but not be limited to the following information:

a. A written description of the waste.

b. A Material Characterization Form.

c. Material Safety Data Sheet.

The description will include the name of the waste, classification, physical form and the origin of the waste, as provided by the generator. The generator will also complete a Material Characterization Form. A copy of this form is provided in Appendix 7. The documentation package will also include, if available, Material Safety Date Sheets (MSDS) for the components of the waste stream.

In addition to the documentation described above, the generator will be required to provide a signed statement certifying that the material is classified as a non-hazardous solid waste, which contains only petroleum-based products or a mixture of Used Oil and Non-Hazardous Solid Waste.

The accuracy of this statement will be based on the generator's knowledge of process, and/or analytical results. The generator will be required to provide sufficient information about the waste that will guarantee that it is comprised of virgin material or used oil containing solid wastes. This information should be suitable to classify the waste as non-hazardous. If the generator cannot provide written confirmation to this effect, analytical testing will be required of the generator.

5.2 RECORDKEEPING

OMSL will keep the above-referenced documentation on file at the facility for each waste stream accepted under this program. Additionally, scale house receipts and tonnages will be tracked to demonstrate compliance as described in Section 6.0 "Throughput Capacity and Emissions Analysis". This information will be available for FDEP inspection at any time. OMSL will maintain these records for a period of two years.

6.0 THROUGHPUT CAPACITY AND EMISSIONS ANALYSIS

OMSL has reviewed the weigh tickets received at the OMS of Pasco facility during the period of the Tampa Bay Oil Spill Clean Up to determine the maximum demonstrated throughput. OMSL has also reviewed the CEM data during this period to determine if any increase in actual emissions resulted. The results of this study are presented below.

6.1 THROUGHPUT ANALYSIS

A review of the waste receipts indicate that during the week of August 20 to 26, 1993, the largest quantity of waste from the oil spill was received at Pasco. A breakdown of waste received during the time period of August through September is provided in Table 1.0.

Appendix 9 presents the OMS of Pasco "Weekly Performance Summaries" for this period of time. The Weekly Performance Summaries can be found in Appendix 9, and categorize this material as "Special Waste".

TABLE 1.0

OMS OF PASCO WEEKLY MSW TONNAGE DATA

DATE	SPECIAL WASTE	TOTAL TONS SOLID WASTE PROCESSED	% OF WASTE STREAM
8/13-8/19/93	489.25	6959.59	7.0
8/20-8/26/93*	1396.68	6524.98	21.4
8/27-9/2/93	793.21	6584.16	12.0
9/3-9/9/93	43.79	5709.26	0.8

* Peak period processing

6.2 EMISSION ANALYSIS

6.2.1 Virgin Oil Spill Demonstration

As demonstrated above, the maximum tonnage of this material processed during the Tampa Bay Oil Barge Cleanup was 1396.9 Tons or approximately twenty percent (20 %) of the total solid waste stream during the week of August 20 to 26, 1993. OMSL has reviewed the CEM data during this peak period. This data indicates no increase in actual emissions of the pollutants monitored on the CEM (CO, SO_2 and Opacity) were observed during this time. A comparative overview of this data and CEM data recorded when no oily debris was processed is provided in Table 2.0.

TABLE 2

OGDEN MARTIN SYSTEMS OF PASCO
CONTINUOUS EMISSIONS MONITORING DATA SUMMARY SHEET OF ACTUAL EMISSIONS
COMPARATIVE DATA ANAYLSIS OF OIL MIXED SOLID WASTE vs. MUNICIPAL SOLID WASTE
JULY 20–26,1993 and AUGUST 20–26,1993

Note: August 20–26,1993 represents the peak period in which the Tampa Bay Spill Cleanup debris was accepted (20% of the waste stream)
July 20–26,1993 is representative period when no oily debris was accepted.

DAILY SIX MINUTE AVERAGE COMPARATIVE DATA

	6–Minute Opacity Avg.					
	July 20–26, 1993			Aug. 20–26, 1993		
Unit:	#1	#2	#3	#1	#2	#3
DAY 1:	1.80	0.10	1.40	1.20	0.50	0.30
DAY 2:	1.70	0.00	1.30	1.20	0.60	0.40
DAY 3:	1.70	0.10	1.40	1.30	0.50	0.40
DAY 4:	1.80	0.20	1.40	1.30	0.40	0.50
DAY 5:	1.80	0.30	1.40	OFF	0.70	0.50
DAY 6:	1.70	0.30	1.30	OFF	1.00	0.60
DAY 7:	1.80	0.20	1.40	OFF	1.20	0.70
Avg:	1.76	0.17	1.37	0.71	0.70	0.49
		Avg.	1.10		Avg.	0.63

	6–Minute CO Avg.					
	July 20–26, 1993			Aug. 20–26, 1993		
Unit:	#1	#2	#3	#1	#2	#3
DAY 1:	14.70	12.00	15.50	29.60	25.50	52.80
DAY 2:	16.30	13.50	23.10	19.30	24.00	19.20
DAY 3:	32.40	39.70	21.50	52.60	28.60	26.40
DAY 4:	19.10	12.90	28.60	22.20	25.10	23.30
DAY 5:	18.70	19.30	17.50	OFF	16.10	15.10
DAY 6:	30.90	35.40	39.10	OFF	20.40	17.20
DAY 7:	22.50	20.20	21.20	OFF	28.30	20.10
Avg:	22.09	21.86	23.79	17.67	24.00	24.87
		Avg.	22.58		Avg.	22.18

DAILY ONE HOUR AVG. COMPARATIVE DATA

Note: See below for daily one hour CO averages

	6–Minute SO2 Avg.					
	July 20–26, 1993			Aug. 20–26, 1993		
Unit:	#1	#2	#3	#1	#2	#3
DAY 1:	25.40	28.50	32.80	26.40	23.20	37.30
DAY 2:	23.50	19.80	25.40	21.10	19.70	25.90
DAY 3:	28.60	25.70	27.10	25.90	22.00	27.70
DAY 4:	21.20	17.60	21.80	17.30	21.10	24.50
DAY 5:	21.40	17.90	27.00	OFF	25.20	26.40
DAY 6:	21.30	20.10	28.80	OFF	18.60	19.30
DAY 7:	21.60	15.20	24.90	OFF	8.40	17.80
Avg:	23.29	20.69	26.83	12.96	19.74	25.56
		Avg.	23.60		Avg.	19.42

	1–Hour SO2 Avg.					
	July 20–26, 1993			Aug. 20–26, 1993		
Unit:	#1	#2	#3	#1	#2	#3
DAY 1:	25.30	28.50	32.90	26.40	23.10	36.70
DAY 2:	23.50	19.70	25.40	21.10	19.70	25.90
DAY 3:	28.60	25.70	27.20	25.80	22.00	27.70
DAY 4:	21.30	17.50	21.80	17.20	21.10	24.50
DAY 5:	21.40	17.90	27.00	OFF	25.20	26.40
DAY 6:	21.20	20.10	28.80	OFF	18.60	19.50
DAY 7:	21.50	15.20	24.90	OFF	8.50	18.00
Avg:	23.26	20.66	26.86	12.93	19.74	25.53
		Avg.	23.59		Avg.	19.40

DAILY ROLLING AVERAGE COMPARATIVE DATA

Note: Rolling averages are in allowable permit averaging periods.

	1–Hour CO Rolling Avg.					
	July 20–26, 1993			Aug. 20–26, 1993		
Unit:	#1	#2	#3	#1	#2	#3
DAY 1:	14.60	12.00	15.50	29.60	25.80	52.00
DAY 2:	16.60	13.50	23.00	19.30	24.00	19.20
DAY 3:	32.20	39.60	21.40	52.40	28.60	26.30
DAY 4:	19.10	12.90	28.50	22.30	25.10	23.40
DAY 5:	18.70	19.30	17.40	OFF	16.10	15.10
DAY 6:	30.80	35.40	38.90	OFF	20.40	17.10
DAY 7:	22.50	20.10	21.10	OFF	28.30	20.00
Avg:	22.07	21.83	23.69	17.66	24.04	24.73
		Avg.	22.53		Avg.	22.14

	8–Hour CO Rolling Avg.					
	July 20–26, 1993			Aug. 20–26, 1993		
Unit:	#1	#2	#3	#1	#2	#3
DAY 1:	16.30	13.30	16.20	34.80	36.10	65.20
DAY 2:	16.70	13.40	18.70	20.90	23.70	18.70
DAY 3:	31.80	39.70	25.70	40.20	27.20	25.50
DAY 4:	18.70	12.60	24.00	34.50	26.60	24.20
DAY 5:	17.80	16.20	16.70	OFF	17.30	16.30
DAY 6:	31.10	35.80	34.90	OFF	19.90	16.50
DAY 7:	22.70	21.80	25.40	OFF	27.00	18.80
Avg:	22.16	21.83	23.09	18.63	25.40	26.46
			22.36			23.50

	3–Hour SO2 Rolling Avg.					
	July 20–26, 1993			Aug. 20–26, 1993		
Unit:	#1	#2	#3	#1	#2	#3
DAY 1:	25.40	27.90	32.40	27.50	24.20	37.30
DAY 2:	23.70	20.20	25.80	20.90	19.40	25.30
DAY 3:	28.70	26.10	27.40	25.70	21.60	28.00
DAY 4:	21.40	17.30	21.40	17.50	21.50	24.70
DAY 5:	21.90	18.50	27.20	OFF	25.00	26.30
DAY 6:	20.80	19.20	28.50	OFF	19.00	20.40
DAY 7:	21.40	15.60	25.30	OFF	9.10	17.90
Avg:	23.33	20.69	26.86	13.09	19.97	25.70
		Avg.	23.62		Avg.	19.59

	6–Hour SO2 Rolling Avg.					
	July 20–26, 1993			Aug. 20–26, 1993		
Unit:	#1	#2	#3	#1	#2	#3
DAY 1:	25.40	27.40	32.20	28.70	25.90	38.30
DAY 2:	23.90	20.90	26.20	20.50	18.40	24.70
DAY 3:	28.90	26.30	27.50	25.00	21.50	26.60
DAY 4:	21.60	17.80	21.50	18.40	22.30	25.90
DAY 5:	22.10	18.80	27.40	OFF	24.20	26.00
DAY 6:	20.30	17.60	27.60	OFF	19.50	22.20
DAY 7:	21.50	16.50	25.70	OFF	10.00	17.80
Avg:	23.39	20.76	26.87	13.23	20.26	25.93
		Avg.	23.67		Avg.	19.80

Notes:

1) OMS of PASCO is a three unit 1050 TON/DAY Facility (350Tons/Unit)
2) Unit #1 was offline from 8/24–26/93.
3) OMS of Pasco permit limits & averaging periods are as follows: Opacity 15%–6min Avg; CO: 8Hr Avg–100ppm & 1Hr Avg–400ppm; SO2: 3Hr Avg. 104ppm & 6Hr Avg–60ppm

This is significant, especially for SO_2, since this was the pollutant of most concern when FDEP Southwest District approved the material for processing. As such, the data clearly demonstrates that the OMS of Pasco Waste-to-Energy combustion and air pollution control systems were more than sufficient to control emissions during this peak processing week.

For a comparative review of August's CEM data, OMSL has included CEM data from July, a month in which no oil spill cleanup material was accepted. The month of July is considered to be very similar to that of August, since they are both summer months, and can provide a good comparison for air emission impact analysis. Refer to Appendix 9, which presents the actual CEM data reports for July and August 1993 on all three units at the facility. Three sets of CEM data are provided for all three units at the OMS of Pasco facility which include: 1) Daily 6-Minute averages, 2) Daily 1-Hour averages, and 3) Daily Rolling Averages. For convenience, the data during peak acceptance of the Tampa Bay oil spill wastes has been highlighted.

7.0 CONCLUSION

OMSL believes the information provided herein demonstrates that:

1) OMSL has adequate safeguards in place to ensure no hazardous waste or any other wastes prohibited by our permit will be accepted;
2) OMSL will be in compliance with all applicable Federal and State regulations;
3) Recordkeeping procedures are in place to demonstrate compliance with the above regulations;
4) No increase in actual emissions from processing this material will result, and
5) The OMSL facility, by the unique nature of its operations, provides the most desirable and environmentally sound method of disposing of this material.

7.1 DRAFT PERMIT LANGUAGE

Based on the above, we have prepared for your Department, the following draft permit language for inclusion in Specific Condition No. 1.c. The language is as follows with the additional changes noted in bold-face type.

> "The MWC shall be fueled with wood chips or municipal solid waste which can include biohazardous waste. Radioactive waste may not be burned unless the combustor has been issued a permit for such burning or the waste is such quantity to be exempt in accordance with Department of Health and Rehabilitative Services (HRS) Rule 10D-91 or 10D-104.003, F.A.C. Hazardous waste may not be burned unless the combustor has been issued a permit for such burning or the waste is of such quantity to be exempt in accordance with Department Rule 17-30, F.A.C. **[Solid waste commingled with virgin petroleum products, Solid Waste commingled with Used Oil (as defined by 40 CFR Part 279 or state-adopted equivalent (Department Rule 17-710)), and filters may be burned at a rate not to exceed 20% of the facility's daily throughput rating based on a 30-Day rolling average].** Other wastes and special wastes shall not be burned without specific prior written approval of the Florida DER".

This draft language provides OMSL the flexibility to process this material based upon constraints of the demonstrated throughput during the period in which the oil spill waste was processed from the Tampa Bay barge spill.

APPENDIX 1
FDEP Southwest District Approval Letter: Tampa Bay Barge Oil Spill

Florida Department of
Environmental Protection

Lawton Chiles
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

Virginia B. Wetherell
Secretary

August 18, 1993

Mr. Robert J. Teitz
Utilities Operations and Maintenance Director
Pasco County, Florida
7536 State Street
New Port Richey, Florida 34654

Dear Mr. Teitz:

In response to your request to dispose of oil contaminated debris from the recent oil spill, the Department has no objections provided the following conditions are adhered to. Because of concerns about sulfur in the fuel oil generating excess SO_2 emissions, you are advised to observe your SO_2 continuous emission monitor closely. Additionally, the practice may not extend beyond September 30, 1993. In the event that the material cannot be processed in the time frame allotted, an additional request must be made to this office. Please contact me if you have any questions regarding this matter.

Sincerely,

W.C. Thomas, P.E.
District Air Program Administrator

WCT\JMG\

cc: Leslie Webster, Emergency Response
Stephanie Hinson, Solid Waste
Greg Lee, Emergency Response -- Tallahassee

APPENDIX 2
McKay Bay Waste-to-Energy Facility Permit Excerpt

SPECIFIC CONDITIONS: (continued)

1. A part of this permit is the attached 15 General Conditions.

2. Maximum allowable emissions from the following sources shall not exceed: [PSD-FL-086 and AC29-47277 and Rule 17-4.070(3), F.A.C.]

Source	Pollutant	Emission Limitation
Combined Units 1-4	Particulate Matter	0.025 gr/DSCF, corrected to 12% CO_2 and 27.9 lbs./hr.
	Sulfur Dioxide	170.0 lbs./hr.
	Nitrogen Dioxide	300.0 lbs./hr.
	VOC	9.0 lbs./hr.
	Lead	3.1 lbs./hr.
	Fluoride	6.0 lbs./hr.
	Mercury (vaporous and particulate)	0.6 lbs./hr.
	Beryllium	5 grams/24 hour period and 0.00046 lbs./hr.
Fly Ash Silo	Particulate Matter	0.025 gr/DSCF, up to 0.36 lbs./hr.

3. Visible emissions shall not exceed the following, except as noted in Specific Condition No. 4: [AC29-47277, Rule 17-2.510(8)(d)2., F.A.C. and Rule 17-2.650(2)(c)11., F.A.C.]

Source	Emission Limitation
Units 1-4	15%
Fly Ash Silo	9%
Fly Ash Truck Loading	5%

4. Excess emissions resulting from start-up, shutdown or malfunction of any unit shall be limited to a total of 2 hours in any 24 hour period provided best operational practices are adhered to and the duration of excess emissions are minimized. The electrostatic precipitators shall be turned on before igniting each unit. [Rule 17-2.250(1), F.A.C.]

5. This permit authorizes the permittee to incinerate municipal solid waste, as defined in the project description, and waste oil from spills cleaned up by the Port of Tampa. The municipal solid waste may be generated outside the city limits. It may include waste tires as they are collected as part of the normal waste stream (not segregated) and do not exceed more than 3% of the total charge at any given time. The waste oil can not exceed 10,000 gallons per day from tanker trucks or 10

SPECIFIC CONDITIONS: (continued)

tons per day from fiber drums. No other materials, to include water treatment plant sludges, biomedical waste, radiological waste or hazardous waste, are to be incinerated at this facility. [PSD-FL-086, AC29-47277 and Rule 17-4.070(3), F.A.C.]

6. No auxiliary fuels or segregated materials are to be used to raise the BTU content unless prior authorization is received from the Florida Department of Environmental Regulation and the Environmental Protection Commission of Hillsborough County. [Rule 17-4.070(3), F.A.C. and Chapter 1-1.07, Rules of the Environmental Protection Commission of Hillsborough County]

7. The permittee shall not cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor. [Rule 17-2.620(2), F.A.C.]

8. Test the emissions from each stack while both units exhausting to it are in operation for the following pollutant(s) at intervals of 12 months (± 30 days) from October 29, 1991 and submit 2 copies of test data to the Air Section of the Environmental Protection Commission of Hillsborough County office within forty-five days of such testing. Testing of all four units for each pollutant shall be conducted in a consecutive five day period and shall be consistent with the requirements of Rule 17-2.700(2), F.A.C.:

(X) Particulates
(X) Opacity*
(X) Lead

* The visible emissions readings on each of the two stacks shall be at least 60 minutes in duration and shall be conducted simultaneously with the particulate testing. Both units which share a common stack shall be in operation during the visible emission test.

9. Test the emissions from each unit for the following pollutant(s) six months prior to the expiration date of this permit and submit 2 copies of test data to the Air Section of the Environmental Protection Commission of Hillsborough County within forty-five days of such testing. Testing of all four units for each pollutant shall be conducted within a consecutive five day period and shall be consistent with the requirements of Rule 17-2.700(2), F.A.C.:

(X) Volatile Organic Compounds
(X) Mercury (vaporous and particulate)
(X) Nitrogen Oxide
(X) Total Fluorides
(X) Beryllium
(X) Sulfur Dioxide

APPENDIX 3
OMS of Lake Air Construction Permit and Amendments

OMSL AIR OPERATING PERMIT AMENDMENT
(DATED MAY 25, 1993)

Florida Department of Environmental Regulation

Central District • 3319 Maguire Boulevard, Suite 232 • Orlando, Florida 32803-3767

Lawton Chiles, Governor — Virginia B. Wetherell, Secretary

NOTICE OF PERMIT ISSUANCE

CERTIFIED MAIL
P 123 350 951

Ogden Martin Systems of Lake, Incorporated
40 Lane Road
Fairfield, New Jersey 07007-2615

Attention: Gary K. Crane, Ph.D., Executive Vice President

RECEIVED
MAY 28 1993
ENVIRONMENTAL DEPT.

Lake County - AP
Waste to Energy Facility Units No. 1 and 2

Dear Dr. Crane:

Enclosed is the Permit Number AO35-193817 to amend the permit conditions to the above referenced permit issued pursuant to Section(s) 403.087, Florida Statutes.

A person whose substantial interests are affected by this permit may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within 14 days of receipt of this Permit. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

The Petition shall contain the following information; (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed; (b) A statement of how and when each petitioner received notice of the Department's action or proposed action; (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action; (d) A statement of the material facts disputed by Petitioner, if any; (e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action; (f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and (g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this permit. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of receipt of this notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

This permit is final and effective on the date filed with the Clerk of the Department unless a petition is filed in accordance with the above paragraphs or unless a request for extension of time in which to file a petition is filed within the time specified for filing a petition and conforms to Rule 17-103.070, F.A.C. Upon timely filing of a petition or a request for an extension of time this permit will not be effective until further Order of the Department.

When the Order (Permit) is final, any party to the Order has the right to seek judicial review of the Order pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date the Final Order is filed with the Clerk of the Department.

Executed in Orlando, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

CMC

A. Alexander, P.E.
District Director
3319 Maguire Boulevard
Suite 232
Orlando, Florida 32803

FILING AND ACKNOWLEDGEMENT FILED, on this date, pursuant to §120.52(11), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Clerk 5/25/93 Date

AA/lbt

Copies furnished to:

local officials
John Power

CERTIFICATE OF SERVICE

This is to certify that this NOTICE OF PERMIT ISSUANCE and all copies were mailed before the close of business on May 24, 1993 to the listed persons, by Theresa Baldwin.

Rev. 4/91

Florida Department of Environmental Regulation

Central District • 3319 Maguire Boulevard, Suite 232 • Orlando, Florida 32803-3767

Lawton Chiles, Governor

Virginia B. Wetherell, Secretary

Ogden Martin Systems of Lake, Incorporated
40 Lane Road
Fairfield, New Jersey 07007 - 2615

Attention : Gary K. Crane, Ph.D. , Executive Vice President

Lake County - AP
Waste to Energy Facility Units No. 1 and No. 2
Permit No. AO35 - 193817
Change of conditions

Dear Dr. Crane :

We are in receipt of your request for a change of permit conditions. The conditions are changed as follows:

Condition

Specific Condition No. 1a

From

The maximum individual MWC throughput shall not exceed 288 tons per day, 120 million Btu per hour and 69,000 pounds steam per hour, (3-hour average). The maximum throughput of biohazardous waste shall not exceed a total of 1.12 tons/hour and 26.88 tons/day for the entire facility

To

The maximum individual municipal waste combustor throughput shall not exceed 288 tons per day , 120 million Btu per hour and 69,000 pounds steam per hour (3-hour average) for each unit. The maximum throughput of biohazardous waste, for Unit 1 only, shall not exceed a total of 2.15 tons/hour and 51.60 tons/day.

Condition

Specific Condition No. 1b

From

The design furnace mean temperature at the fully mixed zone of the combustor shall be no less than 1800° F for a combustion gas residence time of at least one second.

Ogden Martin Systems of Lake, Incorporated
Waste to Energy Facility Units No. 1 and No. 2
Permit No. AO35 - 193817

To

The furnace temperature at the fully mixed zone of the combustor shall be no less than 1800^{0}F for a combustion gas residence time of at least one second, and the furnace roof temperature, as determined from control room readings, shall be no less than 1138^{0}F.

Please be advised that the facility is now subject to the following requirements :

The permittee shall comply with all storage, operation and contingency requirements set forth in Rules 17-712.420 and 17-712.450.

Unit 1 is permitted to incinerate 50 tons per day or more of biohazardous waste, and therefore must have its approved Ash Management Plan kept on file with the Air Operating Permit.

Rule 17-712.420 addresses Off - Site Biohazardous Waste Storage, and Rule 17-712.450 speaks to Operation and Contingency plans. A copy of Chapter 17-712 is enclosed for your reference.

The Department is aware that these requirements may already have been met through submittals to the Waste Management program. If the aforementioned requirements have already been satisfied in this manner, please inform the Air Program Administrator, Mr. Charles Collins, of this in writing.

Sincerely.

cmc

A. Alexander, P.E., District Director

Date 5/27/93

AA/lbl

Copies furnished to :
Local officials
John Power

Enclosure

TABLE OF CONTENTS

Rule 17-712
Biohazardous and Biological Waste Management Rule

17-712.100 Intent. The purpose of this rule is to implement the provisions of sections 403.704(31) and 381.80, F.S., which direct the Department to regulate biohazardous waste and biological waste from the point at which such waste is transported from a facility which generates such waste for the purpose of off-site shipment for storage, treatment, or disposal, including provisions for the registration of transporters of biohazardous waste. The Department of Health and Rehabilitative Services will regulate the packaging, storage, and treatment of biohazardous waste at the generating facilities.
Specific Authority: 403.704, 403.7045, F.S.
Laws Implemented. 403.704, 403.7045, 381.80, F.S.
History: New 5-18-89.

17-712.200 Definitions.

(1) "American Society for Testing Materials, also referred to as ASTM," means a technical society with headquarters located at 1916 Race Street, Philadelphia, Pennsylvania, 19103, which publishes national standards for the testing and quality assurance of materials.

(2) "Biohazardous waste" means any solid waste or liquid waste which may present a threat of infection to humans. The term includes, but is not limited to, nonliquid human tissue and body parts; laboratory and veterinary waste which contains human disease-causing agents; discarded sharps; human blood, human blood products, and body fluids. The following are also included:

(a) Used, absorbent materials such as bandages, gauzes, or sponges supersaturated, having the potential to drip or splash, with blood or body fluids, from areas such as operating rooms, delivery rooms, trauma centers, emergency rooms, or autopsy rooms;

(b) Devices which retain visible blood adhering to inner surfaces after use and rinsing such as intravenous tubing, hemodialysis filters, and catheters; and

(c) Other contaminated solid waste materials which represent a significant risk of infection because they are generated in medical facilities which care for persons suffering from diseases requiring strict isolation criteria and listed by the U. S. Department of Health and Human Services, Centers for Disease Control, "CDC Guideline for Isolation Precautions In Hospitals," July/August, 1983.

(3) "Biohazardous waste generator" means a facility or person who produces or generates biohazardous waste. The term includes, but is not limited to, hospitals, skilled nursing or convalescent hospitals, intermediate care facilities, clinics, dialysis clinics, blood banks, dental offices, surgical clinics, medical buildings, health maintenance organizations, home health agencies, physicians offices, laboratories, emergency medical services, veterinary clinics, and funeral homes.

(4) "Biohazardous waste storage" means the holding of biohazardous waste in a place other than at the generating facility for a temporary period at the end of which the waste is treated or stored elsewhere.

(5) "Biohazardous waste transport" means the movement of biohazardous waste by air, rail, highway, or water.

(6) "Biohazardous waste transporter" means a person engaged in the off-site transportation of biohazardous waste by air, rail, highway or water.

(7) "Biohazardous waste treatment" means any process, including steam sterilization, chemical sterilization, or incineration, which changes the character or composition of biohazardous waste to render it non-biohazardous.

(8) "Biological waste" means solid waste that causes or has the capability of causing disease or infection and includes, but is not limited to, biohazardous waste, diseased or dead animals, and other wastes capable of transmitting pathogens to humans or animals.

(9) "Body fluids" means those fluids that have the potential to harbour pathogens, such as Human Immunodeficiency Virus and Hepatitis B Virus and includes lymph, semen, vaginal secretions, cerbrospinal, synovial, pleural, peritoneal, pericardial and amniotic fluids. Body excretions such as feces, and secretions such as nasal discharges, saliva, sputum, sweat, tears, urine, and vomitus shall not be treated as biohazardous waste, unless visibly contaminated with blood.

(10) "Container" means any portable rigid or semi-rigid device in which a material is stored, transported, treated, or otherwise handled.

(11) "Decontamination" means the process of rendering biohazardous waste to solid waste.

(12) "Department" means the Florida Department of Environmental Regulation.

(13) "Disinfection" means a process that destroys or irreversibly inactivates the vegetative cells of infectious micro-organisms.

(14) "Facility" means all contiguous land, and structures, other appurtenances, and improvements on the land used for generating, treating or storing biohazardous waste. A facility may consist of several treatment or storage operational units.

17-712.200(3) -- 17-712.200(14)

(15) "Human blood and blood products" means the fluid circulated by the heart which carries oxygen and nutrients throughout the body and waste materials to excretory channels. This definition includes whole blood, serum, plasma or blood components.

(16) "Motor vehicle" means an automobile, motorcycle, truck, trailer, semitrailer, truck tractor and semitrailer combination, or any other vehicle operated on the roads of this state, used to transport persons or property, and propelled by power other than muscular power, but the term does not include traction engines, road rollers, such vehicles as run only upon a track, bicycles, moped, or farm tractors and trailers.

(17) "Off-site" means any site which is not a part of the facility where biohazardous waste is generated.

(18) "Sealed" means free from openings that allow the passage of liquids.

(19) "Sharps" means devices with physical characteristics capable of puncturing, lacerating, or otherwise penetrating the skin. These devices include but are not limited to needles, intact or broken glass, and intact or broken hard plastic.

(20) "Sterilization" means a process, over sufficient time periods, which destroys all microorganisms and their spores.

(21) "Transport vehicle" means a motor vehicle, rail car, watercraft or aircraft used for the transportation of biohazardous waste by any mode.

Specific Authority: 403.704, 403.7045, F.S.
Laws Implemented: 403.703, 403.704, 403.7045, 381.80, F.S.
History: New 5-18-89, Amended: 8-29-89, 6-18-90.

17-712.400 Off-site Biohazardous Waste Transport.

(1) Biohazardous waste generators transporting less than 25 pounds of their own biohazardous waste, in their own transport vehicle, on any single occasion, are exempt from the registration requirements of subsection (2) and the placarding requirements of subsection (11).

(2) After October 1, 1989, all biohazardous waste transporters shall be registered with the Department in accordance with Rule 17-712.410, F.A.C.

(3) No person may accept biohazardous waste for transport unless it has been properly segregated, packaged, and labeled. The following transport packaging and labeling is required:

(a) Biohazardous waste, except sharps, shall be packaged in impermeable, red, polyethylene or polypropylene plastic bags. Each plastic bag containing biohazardous waste shall have the physical properties specified in Table 1, below:

Table 1 - Physical Properties

Characteristic	Minimum Requirement	Test Method
Impact Resistance	165 grams	ASTM D-1709-85
Tearing Resistance, Parallel and Perpendicular to the Length of the Bag (each plane)	480 grams	ASTM D-1922-67

17-712.200(15) -- 17-712.400(3)(a)

1. Seams of these bags shall be of equal resistance to tearing and shall be impermeable; and

2. Evidence of the bag manufacturer's testing and bag quality shall be on file with the biohazardous waste generator and include, at the minimum, bag thickness, the results of the dart impact test (in grams) and tearing resistance for each plane (in grams), and the name and address of the company that performed the tests;

(b) Filled bags shall be sealed;

(c) Discarded sharps shall be segregated from all other waste. Discarded sharps shall be placed directly into leak-resistant, rigid, puncture-resistant containers. If the sharps container is composed of fiberboard material, the minimum standard shall be the equivalent of double-walled, corrugated and meet the standard of the U.S. Department of Transportation, Section 178.210, 49 Code of Federal Regulations, for a minimum strength of at least 275 pounds. Single use and multi use sharps containers shall be designed primarily for the containment of sharps and shall be clearly labeled as described in (e) below;

(d) Disposable single-use containers shall be destroyed or sterilized during the treatment process. Single-use containers shall be rigid, leak-resistant, puncture-resistant, burst-resistant and tear-resistant under normal conditions of handling and use. Multi-use storage containers shall be disinfected after each use by a method outlined in the operation plan required by Rule 17-712.450, F.A.C. These multi-use containers shall be rigid, leak-resistant, puncture-resistant, burst-resistant, and tear-resistant under normal conditions of handling and use and be constructed of smooth, easily cleanable, impermeable materials and be resistant to corrosion by disinfectant chemicals;

(e) Packaged biohazardous waste shall be labeled if it is to be transported away from the generating facility. The label shall be securely attached or permanently printed on each bag, container and the outer layer of packaging and be clearly legible and easily readable. Indelible ink shall be used to print the information on the label. The following information shall be included on the label:

1. The generator's name and address;
2. The date the waste was generated or packaged;
3. The international biological hazard symbol as depicted below. The symbol shall be red, orange, or black and the background color shall be that the colors contrast. For reusable sharps containers, an embossed symbol that is clearly legible shall be satisfactory. The symbol shall be at least six inches in diameter on bags and containers and at least one and one-half inches in diameter for sharps containers. However, symbols of at least 1.5 inches in diameter shall be permitted on bags having the dimensions 19" X 14" or smaller; and

17-712.400(3)(a)1. -- 17-712.400(3)(a)3.

4. One of the following words or phrases shall be used in conjunction with the international biological hazard symbol: "BIOHAZARDOUS WASTE" or "INFECTIOUS WASTE".

(f) Packaged biohazardous waste to be transported away from the generating facility shall be identified with a label that indicates the entity which transports the waste. The label shall be securely attached or permanently printed on the outer layer of packaging and shall be legible and easily readable. Indelible ink shall be used. The following information shall be included:

1. The transporter's name and address;
2. The transporter's biohazardous waste transporter registration number; and
3. The transporter's 24-hour emergency telephone number.

(g) Packages of biohazardous waste shall remain intact until treatment or disposal. There shall be no recycling efforts nor intentional removal of waste from its packaging prior to the waste being treated or disposed;

(h) Packages of biohazardous waste shall be handled in a manner that does not impair the integrity of the packaging; and

(i) Bagged biohazardous waste being transported off-site shall be enclosed in a rigid type container. If a fiberboard box is used, it shall be single-walled, corrugated, and labeled with a stamp or symbol certifying that the box meets all construction requirements of applicable freight classification for a minimum bursting strength of 200 pounds per square inch, a minimum combined weight of facings of 84 pounds per 1000 square feet, and a maximum gross weight of 65 pounds, as defined by the U.S. Department of Transporation, Section 178.205, 49 Code of Federal Regulations. All containers shall be sealed prior to transport.

(4) Solid waste which has, or is likely to have, been in direct contact with biohazardous waste shall be managed as biohazardous waste, except when mixed with hazardous or radioactive waste in which case the mixture shall be managed pursuant to Rule 17-730 or 10D-91, F.A.C., respectively.

(5) No person shall compact biohazardous waste or allow it to leak into the environment during transport.

(6) No person shall transport biohazardous waste in the same transport vehicle with other solid wastes. However, "Sterilized Biohazardous Waste" as referenced in Rule 17-712.430(1)(b), F.A.C. may be transported in the same transport vehicle as biohazardous waste and, in that event, shall be managed as biohazardous waste.

(7) Any person who unknowingly fails to comply with subsections (5) or (6) because such biohazardous waste has not been properly segregated or separated from other solid wastes by the generating facility is not guilty of a violation under this rule.

(8) No person shall deliver biohazardous waste for storage or treatment to a facility, in this state, which does not have a valid general permit granted pursuant to Rule 17-712.800, F.A.C. or other permit issued by the Department allowing the facility to manage biohazardous waste.

17-712.400(3)(a)4. -- 17-712.400(8)

(9) Persons manually loading or unloading containers of biohazardous waste shall wear impermeable gloves and protective clothing to help prevent accidental exposure.

(10) Surfaces that have been in contact with spilled or leaked biohazardous waste shall be decontaminated by methods described in the operation plan required by Rule 17-712.450, F.A.C.

(11) All transport vehicles shall be identified with the business name of the registered transporter with their registration number, a 24-hour emergency telephone number and placards showing the international biological hazard symbol, as described in subsection (3) and the phrase "Biohazardous Waste" or "Infectious Waste" The cross hatch area of the symbol shall be at least twelve inches in diameter.

(12) Each biohazardous waste transporter shall:

(a) Allow the Department to inspect transport vehicles at reasonable times and locations.

(b) Allow the Department to inspect all documentation required by this rule, including operation and contingency plans, registration documents, and reports related to the transport of biohazardous wastes, at all reasonable times and places.

(13) All transport vehicles shall be fully enclosed and secured when unattended.

(14) Biohazardous waste transporters shall notify the Solid Waste Section of the Department within one working day by telephone and shall submit a follow-up report to the Administrator of the Solid Waste Section within 10 days, in writing, if there is an accident that results in a spill of biohazardous waste into the environment.

(15) Each biohazardous waste transporter shall record and maintain for three years the following information regarding its activities for each month of operation:

(a) The approximate quantity by weight of biohazardous waste collected;

(b) Where or from whom the biohazardous waste was collected; and

(c) Where the biohazardous waste was taken, including receipts or other written materials documenting where all biohazardous waste was stored or treated.

(16) Each biohazardous waste transporter who transports biohazardous waste to a treatment facility shall insure that the generator is provided with written documentation that all the waste transported from that generator is received by the treatment facility. The generator shall retain such documentation for at least three years.

Specific Authority: 403.704, 403.707, F.S.
Laws Implemented: 403.704, 403.707, 403.708, 403.7084, F.S.
History: New 5-18-89, Amended: 8-29-89, 6-18-90.

17-712.410 Registration of Biohazardous Waste Transporters.

(1) Except as provided in Rule 17-712.400(1), F.A.C., all owners or operators of transport vehicles shall submit to the Department a completed and signed registration form 17-712.900(1) and a $25.00 registration fee. The application and supporting information shall include the following:

(a) The name, address and telephone number of the applicant.

(b) A description of all transport vehicles including registration and license numbers. The transport vehicles listed must be registered to the person applying for registration or under control of the person applying for registration pursuant to a written lease or contract.

17-712.400(9)(i) -- 17-712.410(1)(b)

(c) A statement certifying that the person applying for registration understands and will comply with the applicable requirements of this rule.

(2) Biohazardous waste transporters shall renew registration at least once every three years.

(3) Registered biohazardous waste transporters shall notify the Department in writing within 30 days of the following:

(a) The transporter changes majority ownership, name, or location of its principal place of business in the state.

(b) The ownership or control of any transport vehicles listed in registration form 17-712.900(1) is changed.

(c) A transport vehicle is involved in an accident which renders it in noncompliance with the requirements of this rule.

(4) Any registered biohazardous waste transporter is subject to having its biohazardous waste transporter registration suspended or revoked, pursuant to section 403.087, F.S., upon a finding by the Department that such transporter:

(a) Has submitted false or inaccurate information in his application;

(b) Has violated law, department orders, rules, or registration conditions;

(c) Has failed to submit reports or other information required by department rule; or

(d) Has refused lawful inspection under Rule 17-712.400(12)(a), F.A.C.

Specific Authority: 403.704, 403.707, F.S.
Laws Implemented: 403.703, 403.707, 403.708, F.S.
History: New 5-18-89.

17-712.420 Off-site biohazardous waste storage.

(1) No person shall operate a facility for off-site biohazardous waste storage without a general permit granted pursuant to Rule 17-712.800, F.A.C. Storage areas that are an integral part of a treatment facility must meet the requirements of this rule; however, a storage facility permit in addition to the treatment facility permit is not required.

(2) Storage of biohazardous waste shall be in designated fully enclosed areas, separate from other solid wastes, constructed of smooth, easily cleanable materials that are impervious to liquids and capable of being readily maintained in a sanitary condition, with restricted access to prevent entry of unauthorized persons. The areas must be conspicuously marked with signs that show the international biological hazard symbol as described in Rule 17-712.400(3), F.A.C. and the phrase "Biohazardous Waste" or "Infectious Waste."

(3) A storage facility must be operated in such a way as to prevent vermin, insects and objectionable odors off-site.

(4) Biohazardous waste must be stored in containers and labeled as specified in Rule 17-712.400(3), F.A.C., and must be in good condition and securely sealed.

(5) Persons manually handling biohazardous waste at the storage facility shall wear impermeable gloves and protective clothing to help prevent accidental exposure.

(6) Storage shall not be for a period greater than 30 days.

17-712.410(1)(c) -- 17-712.420(6)

(7) Owners or operators of biohazardous waste storage facilities shall record, and maintain records for three years, the approximate quantity by weight of biohazardous waste received and either treated or transported elsewhere each month.
Specific Authority: 403.704, 403.707, 403.814, F.S.
Laws Implemented: 403.704, 403.707, 403.814, 381.80, F.S.
History: New 5-18-89, Amended 8-29-89.

17-712.430 Off-site biohazardous waste treatment.

(1) Biohazardous waste shall be treated within 30 days of collection (including storage time) from a biohazardous waste generator, and in this state shall be treated at a facility with a permit issued by the Department allowing the facility to treat biohazardous waste. Biohazardous waste shall be treated by one of the following methods:

(a) By incineration in an incinerator permitted pursuant to the requirements of Rule 17-2, F.A.C.; or

(b) By sterilization by heating in a steam sterilizer according to the following operating and fogkeeping requirements so as to render the waste non-biohazardous:

1. Biohazardous waste shall be subjected to sufficient temperature, pressure and time to kill Bacillus stearothermophilus spores in the center of the waste load being decontaminated;

2. Unless a steam sterilizer is equipped to continuously monitor and record temperatures and pressure during the entire length of each sterilization cycle, each package of biohazardous waste to be sterilized will have a temperature sensitive tape or equivalent test material such as chemical indicators attached that will indicate if the sterilization temperature and pressure have been reached. Waste shall not be considered sterilized if the tape or equivalent indicator fails to indicate that a temperature of at least 250 degrees Fahrenheit or 121 degrees Centigrade was reached during the process;

3. Each sterilization unit shall be evaluated for effectiveness with spores of B. stearothermophilus at least once each 40 hours of operation;

4. A written log shall be maintained for each sterilization unit. The following shall be recorded:

a. The date, time, and operator for each usage;

b. The type and approximate amount of waste treated;

c. The post-sterilization confirmation results by recording the temperature, pressure and time the waste was treated, or attaching the temperature and pressure monitoring discs;

d. Dates and results of calibration and maintenance; and

e. The results of sterilization effectiveness testing with B. stearothermophilus or equivalent;

5. Biohazardous waste sn rendered non-biohazardous shall be disposed of as solid waste that is not biohazardous, provided it is not an otherwise regulated hazardous or radioactive waste. Such solid waste must be in containers clearly labeled with the phrase "Sterilized Biohazardous Waste," and transported in the same manner as untreated biohazardous waste, pursuant to Rule 17-712.400(5), (6), (7), (12), (13), (14), and (15), F.A.C., to the solid waste disposal facility; and

6. Logs required in subparagraph 4. above must be kept for a period not less than three years, and must be available for inspection by Department personnel.

(2) An alternative treatment method may be approved by the Department pursuant to Rule 17-712.440, F.A.C.

(3) Owners or operators of biohazardous waste treatment facilities shall record, and maintain for three years, the approximate quantity by weight of biohazardous waste treated each month.
Specific Authority: 403.704, 403.7045, 403.707, F.S.
Laws Implemented: 403.703, 403.7045, 403.707, 381.80, F.S.
History: New 5-18-89, Amended 8-29-89.

17-712.440 Approval of alternative treatment methods

(1) A person may request in writing a determination by the Secretary of the Department for approval of an alternative treatment method.

(2) The request shall set forth at a minimum the following information:

(a) Reference to Rule 17-712.430(2), F.A.C, and the specific treatment facility and treatment method for which an approval is sought;

(b) A demonstration that the alternative treatment method provides a degree of protection for the public and the environment equal to that provided by the methods required by Rule 17-712.430(1), F.A.C.; and

(c) A demonstration of the effectiveness of the proposed alternative treatment method.

(3) The Secretary shall specify by order each alternative treatment method approved for an individual facility in accordance with this section or shall issue an order denying the request for such approval. The Department's order shall be agency action, reviewable in accordance with section 120.57, F.S.
Specific Authority: 403.704, F.S.
Laws Implemented: 403.704, 403.707, F.S.
History: New 5-18-89.

17-712.450 Operation and contingency plans.

(1) Any person who stores, treats, or is a registered biohazardous waste transporter shall maintain a written operation plan at the principal place of business in the state. The operation plan, at a minimum, must include the following:

(a) Provisions for personnel training and continuing education;

(b) Decontamination procedures that, at a minimum, include requirements that surfaces contaminated with spilled or leaked biohazardous waste shall be cleaned with a solution of industrial strength detergent to remove visible soil and disinfected with one of the following agents:

1. Hot water at a temperature of at least 164 degrees Fahrenheit or 73 degrees Centigrade for a minimum of 30 seconds; or

2. Rinsing with one of the following chemical disinfectants, at the minimum concentration listed, for at least three minutes:

a. Hypochlorite solution containing 100 parts per million, also referred to as ppm, available free chlorine; or

b. Iodine solution containing 25 ppm available iodine; or

3. Chemical germicides that are registered by the Environmental Protection Agency as hospital disinfectants and are tuberculocidal when used at recommended dilutions; and

(c) Provisions for the disposal of liquid waste created by these chemical disinfection operations, which may include disposal into a sewage system.

(2) Any person who stores, treats or is a registered biohazardous waste transporter shall maintain a written contingency plan at the principal place of business in the state. Transporters shall keep a copy in every transport vehicle listed in Form 17-712.900(1). The plan shall contain the names and telephone numbers of primary response personnel and outline procedures to be used in case of accidental releases of biohazardous waste into the environment.

(3) A copy of the contingency plan and all revisions to the plan shall be submitted, upon request, to local police departments, fire departments, health departments and state and local emergency response teams that may be called upon to provide emergency services at a treatment or storage facility.

Specific Authority: 403.704, F.S.
Laws Implemented: 403.704, 403.707, F.S.
History: New 5-18-89, Amended 8-29-89.

17-712.460 Disposal of biohazardous waste.

(1) Biohazardous waste shall not be disposed of before treatment.

(2) Nothing in this rule shall prohibit disposal of biohazardous waste into a sewage treatment system.

Specific Authority: 403.704, 403.708, F.S.
Laws Implemented: 403.704, 403.708, 381.80, F.S.
History: New 5-18-89.

17-712.500 Management of biological waste. Excluding biohazardous waste, other types of biological waste shall be disposed of in the following manner:

(1) Disposal of bodies of dead animals shall be accomplished pursuant to section 823.041(1), F.S.

(2) Disposal of dead poultry and hatchery residue shall be accomplished pursuant to section 583.181(2), F.S.

Specific Authority: 403.704, F.S.
Laws Implemented: 403.704, 403.707, F.S.
History: New 5-18-89.

17-712.800 General Permits.

(1) Biohazardous waste storage facilities, unless they are storage areas that are an integral part of a treatment facility, shall operate pursuant to a general permit, and shall meet the applicable general permit requirements in Rules 17-4.510 through 17-4.540, F.A.C. and the requirements of this rule.

(2) Prior to operating under a general permit, the owners or operators of biohazardous waste storage facilities shall notify the Department on Form 17-712.900(2). For an existing facility the notification must be submitted within 90 days after the effective date of this rule. For a new facility or for renewal of a general permit, the notification must be submitted 30 days before the operation begins or the existing general permit expires.

(3) The general permit for a biohazardous waste storage facility shall be valid for five years. A general permit may be renewed by submission of the notification required in subsection (2) above.

Specific Authority: 403.704, 403.707, 403.814, F.S.
Laws Implemented: 403.704, 403.707, 403.814, 381.80, F.S.
History: New 5-18-89.

17-712.900 Forms.

The forms used by the Department in the Biohazardous Waste Management Program are adopted and incorporated by reference in this section. The form is listed by rule number, which is also the form number, and with the subject, title and effective date. Copies of forms may be obtained by writing to the Administrator, Solid Waste Section, Bureau of Waste Planning and Regulation, Department of Environmental Regulation, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.

(1) Biohazardous Waste Transporter Registration.

(2) Biohazardous Waste Storage General Permit Notification.

Specific Authority: 120.53(1), 403.061, F.S.
Laws Implemented: 120.53(1), 120.55, 403.0875, F.S.,
History: New 5-18-89.

OMSL AIR OPERATING PERMIT AMENDMENT
(DATED JUNE 28, 1992)

Florida Department of Environmental Regulation

Central District • 3319 Maguire Boulevard, Suite 232 • Orlando, Florida 32803-3767

Lawton Chiles, Governor

Carol M. Browner, Secretary

Ogden Martin Systems of Lake, Incorporated
40 Lane Road
Fairfield, New Jersey 07007-2615

Attention: Gary K. Crane, Ph.D., Executive Vice President

Lake County - AP
Waste to Energy Facility Units No. 1 and 2
Permit No. A035-193817
Change of Conditions

Dear Dr. Crane:

We are in receipt of your request for a change of the permit conditions. The conditions are changed as follows:

Condition

Specific Condition No. 1.a.

From

The maximum individual MWC throughput shall not exceed 288 tons per day, 120 million Btu per hour and 69,000 pounds steam per hour, (3-hour average).

To

The maximum individual MWC throughput shall not exceed 288 tons per day, 120 million Btu per hour and 69,000 pounds steam per hour, (3-hour average). The maximum throughput of biohazardous waste shall not exceed a total of 1.12 tons/hour and 26.88 tons/day for the entire facility.

Specific Condition No. 1.c.

From

The MWC shall be fueled with wood chips or municipal solid waste. Radioactive waste may not be burned unless the combustor has been issued a permit for such burning or the waste is such quantity to be exempt in accordance with Department of Health and Rehabilitative Services (HRS) Rule 10D-91 or 10D-104.003, F.A.C. Hazardous waste may not be burned unless the combustor has been issued a permit for such burning or the waste is of such quantity to be exempt in accordance with Department Rule 17-30, F.A.C. Other wastes and special wastes shall not be burned without specific prior written approval of the Florida DER.

To

The MWC shall be fueled with wood chips or municipal solid waste which can include biohazardous waste. Radioactive waste may not be burned unless the combustor has been issued a permit for such burning or the waste is such quantity to be exempt in accordance with Department of Health and Rehabilitative Services (HRS) Rule 10D-91 or 10D-104.003, F.A.C. Hazardous waste may not be burned unless the combustor has been issued a permit for such burning or the waste is of such quantity to be exempt in accordance with Department Rule 17-30, F.A.C. Other wastes and special wastes shall not be burned without specific prior written approval of the Florida DER.

Condition

Specific Condition No. 6

From

In order for the burning of biohazardous waste to be incorporated into the operation permit, the Department must receive reasonable assurance including but not limited to:

To

During incineration of biohazardous waste the following conditions shall apply:

Condition

Specific Condition No. 6.e.

From

Biohazardous waste may be incinerated by the applicant for the purpose of stack testing to demonstrate reasonable assurance and compliance with the regulations, and for a period not to exceed 90 days for report submittal and Department review. The compliance test must provide the Department with reasonable assurance that the biohazardous standards are met and must be conducted no later than 5 days after the incineration of biohazardous waste begins. The test must be conducted while combusting the maximum desired rate of biohazardous waste and this rate must be determined during the test.

To

Each unit which incinerates biohazardous waste shall conduct annual compliance tests which demonstrate compliance with the applicable biohazardous incinerator standards. The test must be conducted while combusting the maximum desired rate of biohazardous waste and this rate must be determined during the test.

Condition

Specific Condition No. 9.a.

From

Fifteen (15) days prior notification in writing of compliance tests shall be given to the Florida DER district office.

To

Thirty five (35) days prior notification in writing of compliance tests shall be given to the Florida DER district office.

All other conditions remain the same.

This letter must be attached to your permit and becomes a part of that permit.

Sincerely,

cmc

A. Alexander, District Director

Date 6-29-82

AA/jtt

Copies furnished to:
local officials

FILING AND ACKNOWLEDGEMENT
FILED, on this date, pursuant to §120.52(11), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Clerk 6/29/92 Date

AA/jtt

Copies furnished to:

local officials

CERTIFICATE OF SERVICE

This is to certify that this NOTICE OF PERMIT ISSUANCE and all copies were mailed before the close of business on July 1, 1992 to the listed persons, by Theresa Coulson.

Rev. 4/91

OMSL AIR OPERATING PERMIT #AO35-19381
(DATED JANUARY 29, 1992)

Florida Department of Environmental Regulation

Central District • 3319 Maguire Boulevard, Suite 232 • Orlando, Florida 32803-3767

Lawton Chiles, Governor — Carol M. Browner, Secretary

NOTICE OF PERMIT ISSUANCE

Ogden Martin Systems of Lake, Incorporated
40 Lane Road
Fairfield, New Jersey 07007-2615

Attention: Gary K. Crane, Ph.D., Executive Vice President

Lake County - AP
Waste to Energy Facility Units No. 1 and 2

Dear Dr. Crane:

Enclosed is the amended Permit Number A035-193817 to operate the above referenced source issued pursuant to Section(s) 403.087, Florida Statutes.

A person whose substantial interests are affected by this permit may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within 14 days of receipt of this Permit. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

The Petition shall contain the following information;
(a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed; (b) A statement of how and when each petitioner received notice of the Department's action or proposed action; (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action; (d) A statement of the material facts disputed by Petitioner, if any; (e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action; (f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and (g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this permit. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of receipt of this notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

This permit is final and effective on the date filed with the Clerk of the Department unless a petition is filed in accordance with the above paragraphs or unless a request for extension of time in which to file a petition is filed within the time specified for filing a petition and conforms to Rule 17-103.070, F.A.C. Upon timely filing of a petition or a request for an extension of time this permit will not be effective until further Order of the Department.

When the Order (Permit) is final, any party to the Order has the right to seek judicial review of the Order pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date the Final Order is filed with the Clerk of the Department.

Executed in Orlando, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

cmc

A. Alexander
District Director
3319 Maguire Boulevard
Suite 232
Orlando, Florida 32803

FILING AND ACKNOWLEDGEMENT

FILED, on this date, pursuant to §120.52(11), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Clerk Date

AA/azt

Copies furnished to:
Joseph R. Treshler, P.E.
Local officials
Barry Andrews
John W. Seabury
George Ball-Ilovera

CERTIFICATE OF SERVICE

This is to certify that this NOTICE OF PERMIT ISSUANCE and all copies were mailed before the close of business on 1-29-92 to the listed persons, by D. Jones, Adm. Sec.

Rev. 4/91

Florida Department of Environmental Regulation

Central District • 3319 Maguire Boulevard, Suite 232 • Orlando, Florida 32803-3767

Lawton Chiles, Governor — Carol M. Browner, Secretary

Permittee:
Ogden Martin Systems of Lake, Inc.
40 Lane Road
Fairfield, NJ 07007-2615

Attention: Gary K. Crane, Ph.D.,
Exec. V.P.

I. D. Number:
Permit/Certification
Number: A035-193817
Date of Issue:
Expiration Date: October 25, 1996
County: Lake
Latitude/Longitude:
28°44'22"N/81°53'23"W
UTM: 17-413.12 KmE; 3179.21 KmN
Project: Waste to Energy Facility
Units No. 1 and 2

This permit is issued under the provisions of Chapter(s) 403, Florida Statutes, and Florida Administrative Code Rule(s) 17-2. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the department and made a part hereof and specifically described as follows:

The permittee can operate two 288 ton-per-day Combustors which are fueled by wood chips and municipal solid waste.

The facility is rated for a maximum of 15.7 megawatts of energy production.

These sources are located at 3830 Rogers Industrial Park Road in Okahumpka, Lake County, Florida.

General Conditions are attached to be distributed to the permittee only.

GENERAL CONDITIONS:

1. *The terms, conditions, requirements, limitations and restrictions set forth in this permit, are "permit conditions" and are binding and enforceable pursuant to Sections 403.141, 403.727, or 403.859 through 403.861, F.S. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.*

2. *This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.*

3. *As provided in subsections 403.087(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in this permit.*

4. *This permit conveys no title to land or water, does not constitute State recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.*

5. *This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.*

6. *The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.*

7. *The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at reasonable times, access to the premises where the permitted activity is located or conducted to:*

   (a) Have access to and copy any records that must be kept under conditions of the permit;

   (b) Inspect the facility, equipment, practices, or operations regulated or required under this permit; and

   (c) Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

   Reasonable time may depend on the nature of the concern being investigated.

8. *If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:*

   (a) A description of and cause of noncompliance; and

   (b) The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

   The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

PERMITTEE:
Ogden Martin Systems of Lake, Inc.

Attention: Gary K. Crane, Ph.D.,
Exec. V.P.

I. D. Number:
Permit/Certification Number:
A035-193817
Date of Issue:
Expiration Date: October 25, 1996

SPECIFIC CONDITIONS:

OPERATING CONDITIONS

1. Municipal Waste Combustor

   a. The maximum individual MWC throughput shall not exceed 288 tons per day, 120 million Btu per hour and 69,000 pounds steam per hour, (3-hour average).

   b. The design furnace mean temperature at the fully mixed zone of the combustor shall be no less than 1800° for a combustion gas residence time of at least one second.

   c. The MWC shall be fueled with wood chips or municipal solid waste. Radioactive waste may not be burned unless the combustor has been issued a permit for such burning or the waste is such quantity to be exempt in accordance with Department of Health and Rehabilitative Services (HRS) Rule 10D-91 or 10D-104.003, F.A.C. Hazardous waste may not be burned unless the combustor has been issued a permit for such burning or the waste is of such quantity to be exempt in accordance with Department Rule 17-30, F.A.C. Other wastes and special wastes shall not be burned without specific prior written approval of the Florida DER.

   d. Auxiliary fuel burners shall be fueled only with distillate fuel oil or gas (e.g., natural or propane). The annual capacity factor for fuel oil or gas shall be less than 10%, as determined by 40 CFR 60.43b(d). If the annual capacity factor for fuel oil or gas is greater than 10%, the facility shall be subject to 40 CFR 60.44b, standards for nitrogen oxides.

   e. Auxiliary fuel burner(s) shall be used at start up during the introduction of MSW fuel until design furnace gas temperature is achieved. All air pollution control and continuous emission monitoring equipment shall be operational and functioning properly prior to the incineration or ignition of waste and until all the wastes are incinerated. During shut down, the combustion chamber temperature requirement shall be maintained using auxiliary burners until wastes are complete combusted.

f. The facility may operate continuously (8760 hrs/yr).

g. The combustor shall be fed so as to prevent opening the combustor to the room environment.

2. Air Pollution Control Equipment Design

a. Each MWC shall be equipped with a particulate emission control device.

b. Each MWC shall be equipped with an acid gas control device designed to remove at least 90% of acid gases and 70% sulfur dioxide emissions.

c. The acid gas emission control system shall be designed to be capable of cooling flue gases to an average temperature not exceeding 300°F (3-hour rolling average).

3. Continuous Emission Monitoring

Continuous emission monitors for opacity, oxygen, carbon monoxide, carbon dioxide, and sulfur dioxide shall be installed, calibrated, maintained and operated for each unit.

a. Each continuous emission monitoring system (CEMS) shall meet performance specifications of 40 CFR 60, Appendix B. The SO_2 CEMS sample point shall be located downstream of control devices for each unit.

b. CEMS data shall be recorded during periods of startup, shutdown and malfunction but shall be excluded from emission averaging calculations for CO, SO_2, and opacity.

c. A malfunction means any sudden and unavoidable failure of air pollution control equipment or process equipment to operate in a normal or usual manner. Failures that are caused entirely or in part by poor maintenance, careless operation or any other preventable upset condition or preventable equipment breakdown shall not be considered malfunctions.

d. The procedures under 40 CFR 60.13 shall be followed for installation, evaluation and operation of all CEMS.

e. Opacity monitoring system data shall be reduced to 6-minute averages, based on 36 or more data points, and gaseous CEMS data shall be reduced to 1-hour averages, based on 4 or more data points, in accordance with 40 CFR 60.13(h).

f. Average CO and SO_2 emission concentrations corrected for CO_2, shall be computed in accordance with the appropriate averaging time periods included in Condition No. 3.

g. For purposes of reports required under this permit, excess emissions are defined as any calculated average emission concentration, as determined pursuant to Condition No. 3 herein, which exceeds the applicable emission limit in Condition No. 7.

4. Operations Monitoring

a. Devices are to be used to continuously monitor and record steam production, furnace exit gas temperature (FEGT) and flue gas temperature at the exit of the acid gas control equipment. An FEGT to combustion zone correlation shall be established to relate furnace temperature at the temperature monitor location to furnace temperature in the overfire air fully mixed zone. This correlation shall be continuously available for inspection at the site.

b. The furnace heat load shall be maintained between 80% and 100% of the design rated capacity during normal operations. The lower limit may be extended provided compliance with the carbon monoxide emissions limit and the FEGT within this permit at the extended turndown rate are achieved.

5. Any change in the method of operation, fuels, equipment or operating hours shall be submitted for prior approval to DER's Central District office.

6. In order for the burning of biohazardous waste to be incorporated into the operation permit, the Department must receive reasonable assurance including but not limited to:

a. Particulate matter emissions shall not exceed 0.020 grains per dry standard cubic foot of flue gas, corrected to 7% O_2. (See Table 700-1)

b. Hydrochloric acid (HCL) emissions shall not exceed 50 parts per million by volume, dry basis, corrected to 7% O_2 on a three hour average basis or shall be reduced by 90% by weight on an hourly average basis. (See Table 700-1)

c. This facility is subject to the following design, operating, monitoring and operator training requirements.

1. The source shall be designed to provide for a residence time of at least of at least one second in the combustion zone, at no less than 1800°F for the combustion gases.

2. Mechanically fed facilities shall incorporate an air lock system to prevent opening the source to the room environment. The volume of the loading system shall be designed to prevent overcharging thereby assuring complete combustion of the waste. The feed chute design provides an air lock.

3. Carbon monoxide (CO) emissions shall not exceed 100 parts per million by volume, dry basis, corrected to 7% O_2 on an hourly basis. (See Table 700-1)

4. Incineration or ignition of waste shall not begin until the combustion chamber temperature requirement is attained. All control equipment shall be operational and functioning properly prior to the incineration or ignition of waste and until all the wastes are incinerated. During shutdown, the combustion chamber temperature requirement shall be maintained using auxiliary burners until the wastes are completely combusted.

5. Radioactive waste may not be burned unless the source has been issued a permit or the waste is of such quantity to be exempt in accordance with Rule 10D-91 or 10D104.003, F.A.C.

6. Hazardous waste may not be burned unless the source has been issued a permit or the waste is of such quantity to be exempt in accordance with Rule 17-30, F.A.C.

7. All biological waste combustor operators shall be trained by the equipment manufacturer's representatives or another qualified organization as to proper operating practices and procedures. The content of the training program shall be submitted to the Department for approval. The applicant shall submit a copy of a certificate verifying the satisfactory completion of a department approved training program prior to issuance or renewal of the operating permit. The applicant shall not operate the source unless it is operated by an operator who has satisfactorily completed the required training program.

d. Each owner or operator of biological waste incineration facility shall install, operate, and maintain in accordance with the manufacturer's instructions continuous emission monitoring equipment.

(1) The monitors shall record combustion chamber exit temperature and oxygen.

(2) Any owner or operator subject to the provisions of Rule 17-2.710(5), F.A.C. shall maintain a complete file of all measurements, including continuous emissions monitoring system, monitoring device, and performance testing measurements; all continuous emissions monitoring system or monitoring device, calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required, recorded in a permanent legible form suitable for inspection. The file shall be retained for at least two years following the date of such measurements, maintenance, reports and records.

e. Biohazardous waste may be incinerated by the applicant for the purpose of stack testing to demonstrate reasonable assurance and compliance with the regulations, and for a period not to exceed 90 days for report submittal and Department review. The compliance test must provide the Department with reasonable assurance that the biohazardous standards are met and must be conducted no later than 5 days after the incineration of biohazardous waste begins. The test must be conducted while combusting the maximum desired rate of biohazardous waste and this rate must be determined during the test.

EMISSION LIMITS

7. Flue gas emissions from each unit shall not exceed the following:

a. Particulate:	0.0150 grains/dscf corrected to 12% CO_2, or 0.020 grains/dscf corrected to 7% O_2, whichever is less
b. Sulfur Dioxide:	60 ppmdv corrected to 12% CO_2, 6-hour rolling average;

		or, 70% reduction of uncontrolled SO_2 emissions, 6-hour rolling average. Not to exceed 120 ppmdv corrected to 12% CO_2, 6-hr rolling average.
c.	Nitrogen Oxides:	385 ppmdv corrected to 12% CO_2.
d.	Carbon Monoxide:	100 ppmdv corrected to 7% O_2 on an hourly-average basis.
e.	Volatile Organic Compounds:	70 ppmdv as carbon corrected to 12% CO_2.
f.	Lead:	3.1×10^{-4} gr/dscf corrected to 12% CO_2.
g.	Fluoride:	1.5×10^{-3} gr/dscf corrected to 12% CO_2.
h.	Beryllium:	2.0×10^{-7} gr/dscf corrected to 12% CO_2.
i.	Mercury:	3.4×10^{-4} gr/dscf corrected to 12% CO_2.
j.	Visible emissions:	Opacity of MWC emissions shall not exceed 15% opacity (6-min. average), except for one 6-min. period per hour of not more than 20% opacity. Excess emissions resulting from startup, shut down, or malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to, and the duration of excess emissions are minimized.
k.	Hydrochloric Acid:	50 ppmdv, corrected to 7% O_2 on a three hour average basis; or shall be reduced by 90% by weight on an hourly average basis.

For each pollutant for which a continuous emissions monitoring system is required in Condition No. 3, the emission averaging time specified above shall be used to establish operating limits and reportable excess emissions.

Compliance with the permit emission limits shall be determined by EPA reference methods tests included in 40 CFR Parts 60 and 61 and listed in Conditions No. 8 of this permit or by equivalent methods approved by Florida DER.

COMPLIANCE

8. Compliance tests

a. Annual compliance tests shall be conducted at yearly intervals from the date of January 15, 1991 for particulate matter, nitrogen oxides, carbon monoxide, and HCL.

b. Annual compliance tests for the opacity standard shall be conducted at yearly intervals from the date of January 15, 1991 in accordance with 40 CFR 60.11(b) and (e).

c. At least 90 days prior to permit expiration date, the applicant must demonstrate compliance with each permitted emission limit in Specific Condition #7.

d. Compliance with the requirement for 70% control of sulfur dioxide emissions will be determined by using the test methods listed below or a continuous emission monitoring system for SO_2 emissions before and after the air pollution control equipment which meet the requirements of Performance Specification 2 of 40 CFR 60, Appendix B.

e. The compliance tests shall be conducted at the maximum capacity and at the maximum firing rate.

f. The following test methods and procedures of 40 CFR Parts 60 and 61 or equivalent methods shall be used for compliance testing:

(1) Method 1 for selection of sample site and sample traverses.

(2) Method 2 for determining stack gas flow rate.

(3) Method 3 or 3A for gas analysis for calculation of percent O_2 and CO_2.

(4) Method 4 for determining stack gas moisture content to convert the flow rate from actual standard cubic feet to dry standard cubic feet.

(5) Method 5 or Method 17 for concentration of particulate matter.

(6) Method 9 for visible determination of the opacity of emissions as required in this permit in accordance with 40 CFR 60.11.

(7) Method 6, 6C, or 8 for concentration of SO_2.

(8) Method 7, 7A, 7B, 7C, 7D, or 7E for concentration of nitrogen oxides.

(9) Method 10 for determination of CO concentration.

(10) Method 12 for determination of lead concentration.

(11) Method 13B for determination of fluoride concentration.

(12) Method 25 or 25A for determination of VOC concentration.

(13) Method 101A for determination of mercury emission rate.

(14) Method 104 for determination of beryllium emission rate.

(15) Method 26 for determination of hydrogen chloride emission rate.

REPORTS

9. Reporting

a. Fifteen (15) days prior notification in writing of compliance tests shall be given to the Florida DER district office.

b. The results of compliance test shall be submitted to the Central District office within 45 days after completion of the test.

c. The owner or operator shall submit excess emission reports for any calendar quarter during which there are excess emissions from the facility. If there are no excess emissions during the calendar quarter, the owner or operator shall submit a report semiannually stating that no excess emissions occurred during the semiannual reporting period. The report shall include the following:

(1) The magnitude of excess emissions computed in accordance with 40 CFR 60 CFR 60.13(h), any conversion factors used, and the date and time of commencement and completion of each period of excess emissions (60.7(c)(1)).

(2) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the furnace boiler system. The nature and cause of any malfunction (if known) and the corrective action taken or preventive measured adopted (60.7(c)(2)).

(3) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks, and the nature of the system repairs or adjustments (60.7(c)(3)).

(4) When no excess emissions have occurred or the continuous monitoring system has not been inoperative, repaired, or adjusted, such information shall be stated in the report (60.7(c)(4)).

(5) The owner or operator shall maintain a file of all measurements, including continuous monitoring systems performance evaluations; monitoring systems or monitoring device calibration; checks; adjustments and maintenance performed on these systems or devices; and all other information required by this permit recorded in a permanent form suitable for inspection (60.7(d)).

d. Each calendar year on or before March 1, submit for each source, an Annual Operations Report DER Form 17-1.202(6) for the preceding calendar year.

PERMITTEE:
Ogden Martin Systems of Lake, Inc.

Attention: Gary K. Crane, Ph.D.,
Exec. V.P.

I. D. Number:
Permit/Certification Number:
A035-193817
Date of Issue:
Expiration Date: October 25, 1996

EXPIRATION DATE

10. An operation permit renewal must be submitted at least 60 days prior to the expiration date of this permit (Rule 17-4.09, F.A.C.).

ISSUED 1-29-92

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

A. Alexander, District Director
3319 Maguire Boulevard, Suite 232
Orlando, Florida 32803

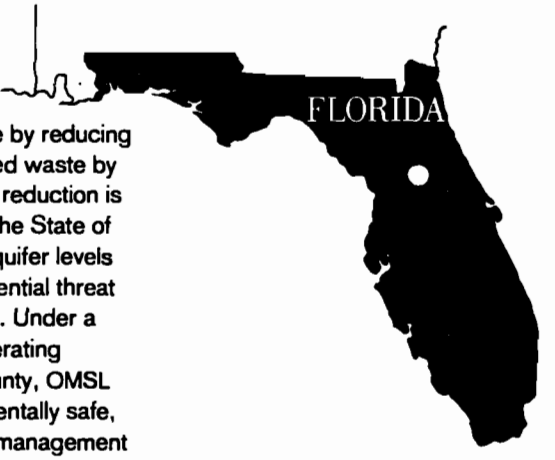
APPENDIX 4
OMS of Lake and OMS of Pasco Facility Profile Descriptions

THE LAKE COUNTY RESOURCE RECOVERY FACILITY

THE LAKE COUNTY RESOURCE RECOVERY FACILITY

The Lake County Resource Recovery Facility, which began commercial operation in March, 1991, processes up to 528 tons of solid waste each day, generating up to 14.5 megawatts of electricity. The facility runs on approximately two megawatts of the energy it produces; the remainder is sold to a local utility and used to power area homes and businesses. Energy production reduces the amount of coal and oil burned by the power company, thus protecting the environment from related emissions. In addition, the County retains 90% of energy sales revenues which helps offset project costs.

Designed, built, owned and operated by Ogden Martin Systems of Lake, Inc. (OMSL), the facility helps save valuable landfill space by reducing the volume of delivered waste by 90%. This significant reduction is of particular value in the State of Florida where high aquifer levels make landfilling a potential threat to groundwater purity. Under a twenty-three-year operating contract with the County, OMSL will provide environmentally safe, effective solid waste management services to County residents well into the future.



RECYCLING WASTE INTO ENERGY

The facility's mass burn combustion system incorporates the technology of German-based Martin GmbH. Waste is combusted at furnace temperatures exceeding 1,800 degrees Fahrenheit and reduced to an inert ash residue which is approximately 10% of the original volume of delivered waste. Before leaving the facility, combustion air is directed through technologically advanced air pollution control equipment consisting of dry flue gas scrubbers and fabric filter baghouses. Facility emissions are strictly regulated by state and federal agencies, as are handling and disposal of combustion ash.

AN INTEGRATED SOLUTION

The resource recovery facility anchors an integrated solid waste management system which includes recycling via City- and County-sponsored curbside collection programs, private buy-back centers and County-run drop-off centers. Materials recycled include plastic and glass containers, aluminum cans and newspapers. In addition, the County encourages citizens to deposit batteries in collection buckets placed at retail outlets and public buildings and operates a permanent household hazardous waste collection center–one of the first in Florida. In addition, ferrous metal recovered from combustion ash is a major contributor to local recycling efforts.

The Lake County Resource Recovery Facility is located in Okahumpka, about 55 miles northwest of Orlando. For information or to arrange a tour, please call 904-365-1611.

FACILITY SPECIFICATIONS

Rated Refuse Burning Capacity
528 tons per day

Unit Design
Two 264 ton per day waterwall furnaces

Guaranteed Throughput
163,000 tons per year

Guaranteed Waste Delivery
130,000 tons per year

Energy Generation at Rated Capacity
up to 14.5 MW, sold to Florida Power Corporation

OGDEN MARTIN SYSTEMS OF LAKE, INC.
3830 Rogers Industrial Park Road
PO Box 189
Okahumpka, Florida 34762

AN OGDEN PROJECTS COMPANY

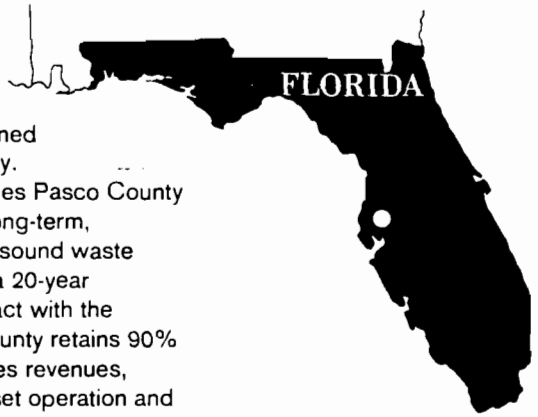
Printed on Recycled Paper

THE PASCO COUNTY SOLID WASTE RESOURCE RECOVERY FACILITY

THE PASCO COUNTY SOLID WASTE RESOURCE RECOVERY FACILITY

The Pasco County Solid Waste Resource Recovery Facility, which began commercial operation in May, 1991, converts up to 1,050 tons per day of non-recycled solid waste into saleable energy. Producing up to 31.2 megawatts of electricity daily, the facility consumes less than four megawatts of the power it generates and sells the remainder to the local utility. Designed, built and operated by Ogden Martin Systems of Pasco, Inc. (OMSP), the facility is owned by Pasco County.

OMSP provides Pasco County residents with long-term, environmentally sound waste disposal under a 20-year operating contract with the County. The County retains 90% of electricity sales revenues, which helps offset operation and construction costs.



RECYCLING WASTE INTO ENERGY

The facility's mass burn combustion system incorporates the technology of German-based Martin GmbH. Waste is combusted at furnace temperatures exceeding 1,800 degrees Fahrenheit and reduced to an inert ash residue that is approximately 10% of the original volume; the ash is disposed at an adjacent County landfill. Before leaving the facility, combustion air is directed through technologically advanced air pollution control equipment, including dry flue gas scrubbers and fabric filter baghouses. Facility emissions are strictly regulated by both state and federal agencies, as are handling and disposal of combustion ash.

AN INTEGRATED SYSTEM

Anchored by the resource recovery facility, Pasco County's integrated solid waste management plan is part of a statewide initiative to reduce reliance on landfilling by implementing integrated solutions on the county level. Plant operations not only conserve landfill space, but offset fossil fuel consumption, as well.

Other elements of the County's integrated system include recycling of paper goods, aluminum cans, glass and plastic containers and white goods and other metals. The County also runs special disposal programs for household hazardous waste, used motor oil, tires and construction and demolition debris. In an effort to reduce the amount of mercury in the waste stream, the County places battery collection buckets in public buildings and retail stores to provide citizens with a safe means of disposing of household batteries. In addition, ferrous metal recovered from combustion ash is a major contributor to the County's recycling efforts.

The Pasco County Solid Waste Resource Recovery Facility is located in Spring Hill. For more information or to arrange a tour, please call 813-856-2917.

FACILITY SPECIFICATIONS

Rated Refuse Burning Capacity
1,050 tons per day

Unit Design
Three 350 ton per day waterwall furnaces

Guaranteed Throughput
326,000 tons per year

Guaranteed Waste Delivery
316,500 tons per year

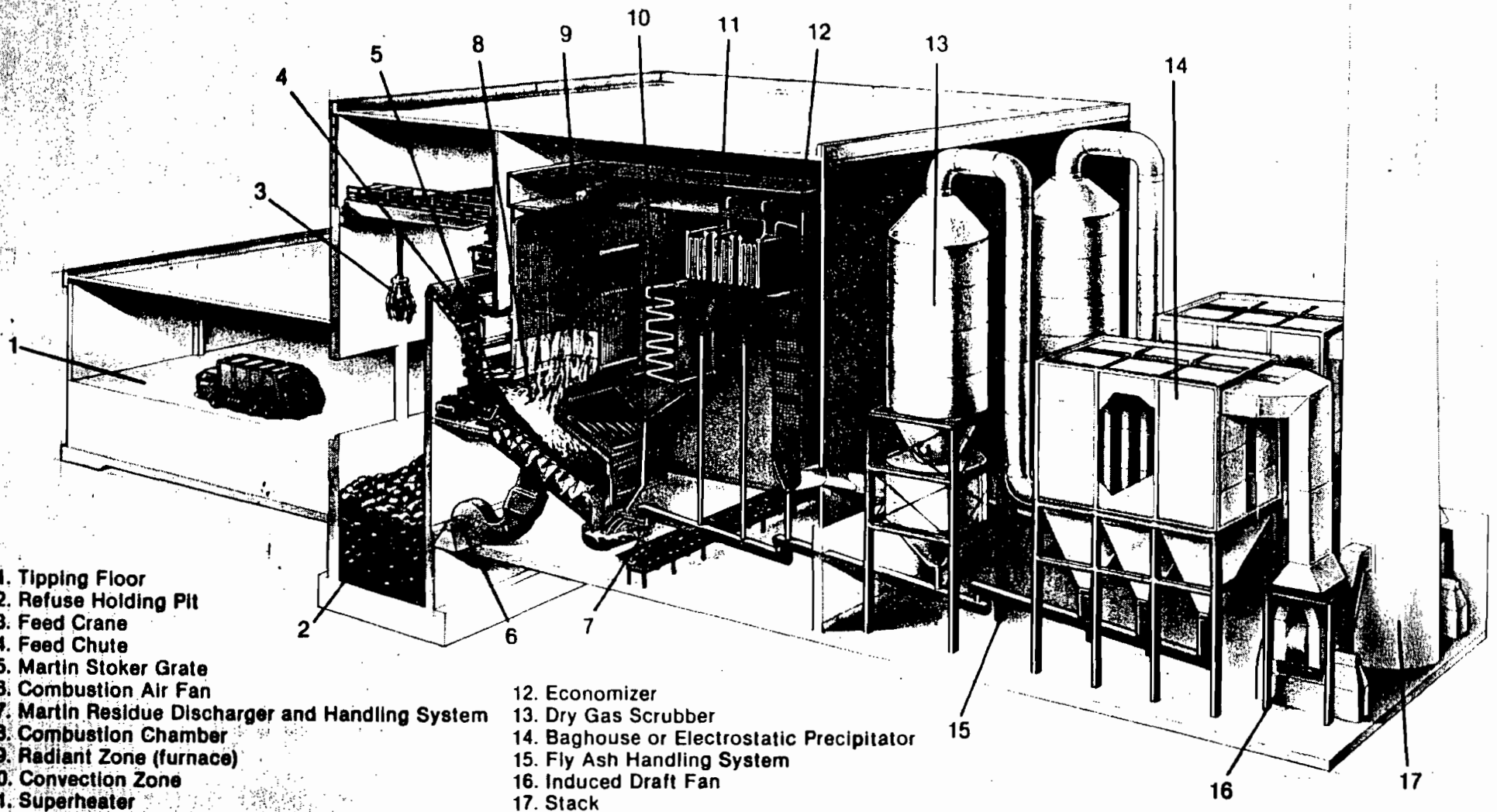
Energy Generation at Rated Capacity
up to 31.2 MW, sold to Florida Power Company

OGDEN MARTIN SYSTEMS OF PASCO, INC.
14230 Hays Road
Spring Hill, Florida 34610

AN OGDEN PROJECTS COMPANY

Printed on Recycled Paper

A TYPICAL OGDEN MARTIN FACILITY



1. Tipping Floor
2. Refuse Holding Pit
3. Feed Crane
4. Feed Chute
5. Martin Stoker Grate
6. Combustion Air Fan
7. Martin Residue Discharger and Handling System
8. Combustion Chamber
9. Radiant Zone (furnace)
10. Convection Zone
11. Superheater
12. Economizer
13. Dry Gas Scrubber
14. Baghouse or Electrostatic Precipitator
15. Fly Ash Handling System
16. Induced Draft Fan
17. Stack

APPENDIX 5
Federal EPA Regulation: 40 CFR Part 279

federal register

Thursday
September 10, 1992

Part III

Environmental Protection Agency

40 CFR Part 260, et al.

Hazardous Waste Management System; Identification and Listing of Hazardous Waste; Recycled Used Oil Management Standards; Final Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 260, 261, 266, 271 and 279

[FRL-4153-6]

RIN: 2050-AC17

Hazardous Waste Management System; Identification and Listing of Hazardous Waste; Recycled Used Oil Management Standards

AGENCY: U.S. Environmental Protection Agency.

ACTION: Final rule.

SUMMARY: The Agency is promulgating a final listing decision for used oils that are recycled and is simultaneously promulgating standards for the management of used oil under RCRA section 3014. EPA has made a final listing decision for used oils that are recycled based upon the technical criteria provided in sections 1004 and 3001 of RCRA. EPA determined that recycled used oil does not have to be listed as a hazardous waste since the used oil management standards issued in this rulemaking are adequately protective of human health and the environment. These standards cover used oil generators, transporters, processors and re-refiners, burners, and marketers. These standards are promulgated under the authority of section 3014 of RCRA and will be codified in a new part 279 of chapter 40 of the Code of Federal Regulations. When these management standards go into effect, service station dealers who collect used oil from do-it-yourself (DIY) generators and who are in compliance with the standards promulgated, may be eligible for the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) section 114(c) liability exemption. EPA is continuing to evaluate the potential hazards associated with management of used oil. When this analysis is completed, the Agency will publish Notice(s) of Data Availability in the Federal Register over the next several months, as necessary. EPA will also, at that time, solicit opinion from the public on what, if any, additional steps may be necessary regarding used oil management.

EFFECTIVE DATE: March 8, 1993.

ADDRESSES: The regulatory docket for this rulemaking is available for public inspection at room 2427, U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460 from 9 a.m. to 4 p.m., Monday through Friday, except for Federal holidays. The docket number is F-92-UO2F-FFFFF. The public must make an appointment to review docket materials by calling (202) 260-9327. The public may copy a maximum of 100 pages from any regulatory document at no cost. Additional copies cost $.20 per page.

FOR FURTHER INFORMATION CONTACT: For general information contact the RCRA Hotline, Office of Solid Waste, U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460; Telephone (800) 424-9346 (toll free) or, in the Washington, DC, metropolitan area at (703) 920-9810.

For information on specific aspects of this rule, contact Ms. Rajani D. Joglekar, telephone (202) 260-3516, or Ms. Eydie Pines, telephone (202) 260-3509, U.S. EPA, 401 M Street SW., Washington, DC 20460.

SUPPLEMENTARY INFORMATION: The contents of today's preamble are listed in the following outline:

I. Authority

This regulatory decision and the regulations promulgated today are issued under the authority of sections 1004, 1006, 2002, 3001, 3014, and 7004 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act, and as amended by the Used Oil Recycling Act, as amended, 42 U.S.C. 6901, 6905, 6912(a), 6921 through 6927, 6930, 6934, 6935, 6937 through 6939 and 6974.

II. Background

A. Authorities and Regulations Covering Used Oil Management

1. Statutory Authority

Section 3014 of RCRA requires EPA to establish standards applicable to recycled used oil that will protect public health and the environment and, to the extent possible within that context, not discourage used oil recycling. Section 3014 was added to the RCRA statute by the Used Oil Recycling Act (UORA) of 1980. The UORA required the Agency to establish performance standards and other requirements "as may be

necessary to protect the public health and the environment from hazards associated with recycled oil" as long as such regulations "do not discourage the recovery or recycling of used oil."

The Hazardous and Solid Waste Amendments of 1984 (HSWA) reemphasized that the protection of human health and the environment was to be of primary concern in the regulation of hazardous waste. Specific to used oil, HSWA slightly altered the language of RCRA section 3014 to direct the Administrator to promulgate regulations as may be necessary to protect human health and the environment from hazards associated with recycled oil. In developing such regulations, the Administrator shall conduct an analysis of the economic impact of the regulations on the oil recycling industry. The Administrator shall ensure that such regulations do not discourage the recovery or recycling of used oil *consistent with the protection of human health and the environment.* (Emphasis added to highlight HSWA language amending RCRA section 3014(a).)

EPA is therefore directed to promulgate standards for the handling and management of recycled oil. Section 1004 of RCRA, in defining the term "recycled oil," includes used oil being reused for any purpose, including used oil being re-refined or being processed into fuel. EPA believes that section 3014 also provides authority for establishing management standards that specifically include used oil being stored, collected or otherwise managed prior to recycling.

2. Regulatory Actions Related to Used Oil

On December 18, 1978, EPA initially proposed guidelines and regulations for the management of hazardous wastes as well as specific rules for the identification and listing of hazardous wastes under section 3001 of the Resource Conservation and Recovery Act (RCRA) (43 FR 58946). At that time, EPA proposed to list waste lubricating oil and waste hydraulic and cutting oil [1] as hazardous wastes on the basis of their toxicity. In addition, the Agency proposed recycling regulations to regulate (1) the incineration or burning of used lubricating, hydraulic, transformer, transmission, or cutting oil that was hazardous and (2) the use of waste oils in a manner that constituted disposal.[2]

In the May 19, 1980 regulations (45 FR 33084), EPA decided to defer promulgation of the recycling regulations for waste oils to consider fully whether waste- and use-specific standards may be implemented in lieu of imposing the full set of Subtitle C regulations on potentially recoverable and valuable materials. At the same time, EPA deferred the listing of waste oil for disposal so that the entire waste oil issue could be addressed at one time. Under the May 19, 1980 regulations, however, any waste oil exhibiting one of the characteristics of hazardous waste (ignitability, corrosivity, reactivity, and toxicity) that was disposed, or accumulated, stored, or treated prior to disposal, became regulated as a hazardous waste subject to all applicable Subtitle C regulations.

As explained above, HSWA made protection of human health and the environment the prominent concern in the Agency's regulatory decisions for used oil and required EPA to propose whether to identify or list used automobile and truck crankcase oil by November 8, 1985. HSWA also required EPA to make a final determination as to whether to identify or list any or all used oils by November 8, 1986. On November 29, 1985 (50 FR 49258), EPA proposed to list all used oils as hazardous waste, including petroleum-derived and synthetic oils, based on the presence of toxic constituents at levels of concern from contamination during use and adulteration after use. Also on November 29, 1985, the Agency proposed management standards for recycled used oil (50 FR 49212) and issued final regulations, incorporated at 40 CFR part 266, subpart E, prohibiting the burning of off-specification used oil fuels [3] in non-industrial boilers and furnaces (50 FR 49164). Marketers of used oil fuel and industrial burners of off-specification fuel are required to notify EPA of their activities and to comply with certain notice and recordkeeping requirements. Used oils that meet the fuel oil specification are exempt from most of the 40 CFR part 266, subpart E regulations.

On March 10, 1986 (51 FR 8206), the Agency published a Supplemental Notice requesting comments on additional aspects of the proposed listing of used oil as hazardous waste. In particular, commenters to the November 29, 1985, proposal suggested that EPA consider a regulatory option of only listing used oil as a hazardous waste when disposed, while promulgating special management standards for used oil that is recycled.

On November 19, 1986, EPA issued a decision not to list as a hazardous waste used oil that is recycled (51 FR 41900). The Agency determined that used oil being recycled should not be listed as a hazardous waste under RCRA. The EPA stated in the November 1986 decision that the Agency intended to issue recycled used oil management standards and was conducting studies necessary to determine what standards are appropriate under § 3014 of RCRA and to determine whether used oil being disposed of should be listed as a RCRA hazardous waste, or regulated under other statutes. At that time, it was the Agency's belief that the stigmatic effects associated with a hazardous waste listing might discourage the recycling of used oil, thereby resulting in increased disposal of used oil in uncontrolled manners. EPA stated that several residues, wastewaters, and sludges associated with the recycling of used oil may be evaluated to determine if a hazardous waste listing was necessary, even if used oil was not listed as a hazardous waste. EPA also outlined a plan that included making the determination whether to list used oil being disposed as hazardous waste and promulgation of special management standards for recycled oil.

EPA's decision not to list used oil as a hazardous waste based on the potential stigmatic effects was challenged by the Hazardous Waste Treatment Council, the Association of Petroleum Re-refiners, and the Natural Resources Defense Council. The petitioners claimed that (1) the language of RCRA indicated that in determining whether to list used oil as a hazardous waste, EPA may consider technical characteristics of hazardous waste, but not the "stigma" that a hazardous listing might involve, and (2) that Congress intended EPA to consider the effects of listing on the recycled oil industry only after the initial listing decision.

On October 7, 1988, the Court of Appeals for the District of Columbia found that EPA acted contrary to law in its determination not to list used oil under RCRA section 3001 based on the stigmatic effects. (See *Hazardous Waste Treatment Council v. EPA*, 861 F.2d 270 (D.C. Cir. 1988) [HWTC I].) The court ruled that EPA must determine whether

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[1] The term "waste oil" included both used and unused oils that may no longer be used for their original purpose.

[2] "Use in a manner constituting disposal" means the placement of hazardous waste directly onto the land in a manner constituting disposal or the use of the solid waste to produce products that are applied to or placed on the land or are otherwise contained in products that are applied to or placed on the land (40 CFR 261.2(c)(1)).

[3] Used Oil that exceeds any of the following specification levels is considered to be "off-specification" used oil under 40 CFR 266.40(e): Arsenic—5 ppm, Cadmium—2 ppm, Chromium—10 ppm, Lead—100 ppm, Flash Point-100 °F minimum, Total Halogens—4,000 ppm.

to list any used oils based on the technical criteria for waste listings specified in the statute.

After the 1988 court decision, EPA began to re-evaluate its basis for making a listing determination for used oil. EPA reviewed the statute, the proposed rule, and the many comments received on the proposed rule. Those comments indicated numerous concerns with the proposed listing approach. One of the most frequent concerns voiced by commenters was related to the quality and "representativeness" of the data used by EPA to characterize used oils in 1985. Numerous commenters indicated that "their oils" were not represented by the data and, if they were represented, those oils were characterized after being mixed with other more contaminated oils or with other hazardous wastes. Many commenters submitted data demonstrating that the used oils they generate, particularly industrial used oils, did not contain high levels of toxicants of concern.

In addition, the Agency recognized that much of the information in the 1985 used oil composition data was more than five years old, as most of the information was collected prior to 1985. Since the time of that data gathering effort, used automotive oil composition may have been affected by the phase-down of lead in gasoline. The Agency also recognized the need to collect analytical data addressing specific classes of used oils as collected and stored at the point of generation (*i.e.*, at the generator's facility).

Finally, the promulgation of the toxicity characteristic (TC) (55 FR 11798, March 29, 1990) is known to identify certain used oils as hazardous waste. Due to the possibility of changes in used oil composition since the Agency's 1985 proposed listing decision and the new TC, the Agency recognized that additional data on used oil characterization may be needed prior to making a final hazardous waste listing determination.

On September 23, 1991, EPA published a Supplemental Notice of Proposed Rulemaking for the identification and listing of used oil and for management standards for recycled used oil (56 FR 48000). The 1991 Supplemental Notice presented supplemental information gathered by EPA and provided to EPA by individuals commenting on previous notices on the listing of used oil and used oil management standards. As discussed above, numerous commenters on the 1985 proposal to list used oil as hazardous contended that the broad listing of all used oils unfairly subjects them to stringent Subtitle C regulations because their used oils are not hazardous. Based on those comments, the Agency collected a variety of additional information regarding various types of used oil, their management, and their potential health and environmental effects when mismanaged. The 1991 Supplemental Notice presented this new information to the public and requested comment on the information, particularly if and how the information suggests new concerns that EPA should consider in deciding whether to finalize all or part of its 1985 proposal to list used oil as a hazardous waste.

In addition, the 1991 Supplemental Notice expanded upon the November 29, 1985 (50 FR 49258) proposal to list used oils as hazardous and the March 10, 1986 (51 FR 8206) Supplemental Notice by discussing regulatory alternatives not previously presented in the Federal Register. Based on the public comments received relative to these two notices, the Agency investigated several important aspects of used oil regulation. The Supplemental Notice also contained a request for comments on additional issues related to the "mixture rule" [40 CFR 261.3(a)(2)(iii)], on test methods for determining halogen levels in used oils, and on new data on the composition of used oil and used oil processing residuals. For these aspects, the Agency identified alternative approaches that were not presented explicitly in the earlier notices. Those new alternatives were presented in the 1991 Supplemental Notice.

The 1991 Supplemental Notice also discussed the Agency's proposal to amend 40 CFR 261.32 by adding four waste streams from the reprocessing and re-refining of used oil to the list of hazardous wastes from specific sources. The wastes from the reprocessing and re-refining of used oil include process residuals from the gravitational or mechanical separation of solids, water, and oil (K152); spent polishing media used to finish used oil (K153); distillation bottoms from used oil processing and re-refining (K154); and treatment residues from primary wastewater treatment (K155).

The 1991 Supplemental Notice also included a description of some of the management standards (in addition to or in place of those proposed in 1985) that EPA considered in promulgating today's final rule.

On May 20, 1992, EPA proposed a Hazardous Waste Identification Rule describing two alternative approaches for hazardous waste identification under RCRA. The first proposed approach would establish concentration based exclusion criteria (CBEC) for listed hazardous wastes, waste mixtures, derivatives, and contaminated media. The second approach an expanded characteristic option (ECHO) would establish "characteristic" levels for listed hazardous wastes, waste mixtures, derivatives, and contaminated media. (57 FR 21450). Depending upon which approach the Agency finalizes, the manner in which EPA regulates mixtures of used oil and hazardous waste may change.

B. Summary of May 20, 1992 Federal Register Notice (Final Listing Decision for Used Oils Destined for Disposal)

On May 20, 1992, EPA published a final rule that addressed the listing of used oils that are disposed, excluded non-terne plated used oil filters that have been drained to remove used oil from the definition of hazardous waste, and deferred a final listing determination on residuals from the processing and re-refining of used oil (57 FR 21524). Four separate actions were taken and are discussed below.

First, the Agency promulgated a final decision not to list used oils destined for disposal. This decision was based primarily upon the finding that all used oils do not typically and frequently meet the technical criteria for listing a waste as hazardous. In making the final listing determination for used oil destined for disposal, EPA also gave considerable attention to the current federal regulations governing the management of used oils that are disposed. EPA evaluated the technical criteria for listing in light of the current regulatory structure that controls the management of used oils and concluded that any plausible mismanagement of used oil that is destined for disposal is addressed by current requirements. Existing regulations that cover used oil destined for disposal are discussed briefly at the end of this section. In addition, if a used oil that is destined for disposal exhibits a characteristic, it is regulated as a hazardous waste under subtitle C.

Second, the Agency decided to defer a decision on listing and management standards for used oil that is recycled (this decision is included in today's rule).

Third, the Agency promulgated a final exemption from the definition of hazardous waste in § 261.4 for certain used oil filters. The filters that received the exemption are non-terne-plated used oil filters that have been hot-drained to remove used oil. (Terne is an alloy of tin and lead.) Hot-drained means draining used oil from a filter while the engine is at operating temperature, when oil flows easily. Based on data submitted to EPA, non-terne-plated, hot-drained used oil

filters do not typically and frequently exhibit the Toxicity Characteristic.

Fourth, the Agency announced its deferral of a final decision on whether or not to list residuals from the processing and re-refining of used oil. The Agency stated that it will continue to evaluate the composition of used oil recycling residues and the management of these residues. The reason for continued evaluation of residuals is that recycling techniques and waste management practices that evolved during the past six years have resulted in residual composition changes.

C. Current Federal Regulations Governing Disposal of Used Oil

Currently, there are several regulatory programs in place to control the storage and transportation of used oil, to protect against releases to the ground, ground water, and surface waters, to protect against improper disposal of used oils, to prevent the burning of used oils with high levels of toxic constituents in certain units, and to control the management of used oils containing PCB's. Several of these programs have been proposed and/or promulgated since 1985, and some have been in place since before 1985. The Agency has decided that these current regulations are protective, but are not complete or sufficient to protect human health and the environment from potential mismanagement of used oils that are recycled. Therefore, in addition to the existing regulations, used oil handlers will have to comply with additional management standards that EPA is promulgating today, such as recordkeeping and analysis requirements, and a requirement for containment consisting of impervious floor and dikes/berms. The current regulatory programs are described below.

The storage of used oil in underground tanks is controlled under subtitle I of RCRA (40 CFR part 280). These regulations require that underground tanks be properly maintained, operated, protected from corrosion, and that any spills are properly cleaned up. Other existing storage tank standards are found under the Clean Water Act Spill Prevention Control and Countermeasures (SPCC) requirements. SPCC requirements regulate the storage of materials, including used oil, in aboveground *and* in underground tanks under certain circumstances. The Clean Water Act also requires reporting of releases of oil into navigable waters if a sheen appears on the water, if any water quality standards are violated, or if a sludge is deposited beneath the surface of the water. The recently enacted Oil Pollution Act revised the SPCC requirements of the Clean Water Act.

Regulations promulgated pursuant to MARPOL 73/78, Annex I, act to control shipboard management of used oil and releases of used oil to navigable waters. Bilge slops are a commonly generated waste on-board ships that contain used oil; MARPOL prevents this waste from being discharged into the sea in an unrestricted manner.

The transport of used oil is regulated under the Department of Transportation's Hazardous Materials Transportation Act (HMTA). Used oil that meets the criteria for being "combustible" or "flammable" is regulated under DOT requirements for classification, packaging, marking, labeling, shipping papers, placarding, recordkeeping and reporting.

The burning of used oil for energy recovery is subject to existing standards under RCRA (40 CFR part 266, subpart E). These standards include requirements for marketers of used oil, such as notification, analysis, recordkeeping, and invoices for each shipment. Off-specification used oil must be burned in industrial boilers or furnaces only. The "specification" levels for used oil that will be burned for energy recovery include levels for metals, halogens, and flash point. These existing standards promulgated in 1985 are recodified in part 279 today.

The manufacture, use, import, and disposal of polychlorinated biphenyls (PCBs) in used oils are controlled under the Toxic Substances Control Act (TSCA). TSCA controls the manufacture, import, use, and disposal of oils containing over 50 ppm PCBs. In addition, TSCA requires reporting of any spill of material containing 50 ppm or greater PCBs, into sewers, drinking water, surface water, grazing lands, or vegetable gardens. The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) requires reporting of any 1-pound spill of PCBs into the environment. Note that used oils containing less than 50 ppm of PCBs are covered under RCRA.

Used oils that are contaminated with CERCLA hazardous substances (*e.g.*, due to the presence of elevated levels of lead) are subject to CERCLA release reporting requirements. Therefore, releases of used oil containing such contaminants (*e.g.*, lead) into the environment in quantities greater than the reportable quantity for the contaminant must be reported to the National Response Center. The current RQs for CERCLA hazardous substances are listed in 40 CFR 302.4. In addition, under 40 CFR part 110, any discharge of oil that violates applicable water quality standards or causes a film or sheen on a water surface must be reported to the National Response Center.

As mentioned previously, used oil handlers will have to comply with all existing regulations (including any applicable State and local regulations), and in addition, the new management standards for recycled oil promulgated today. For the reasons discussed in more detail below, EPA believes that this network of regulations will be sufficient to ensure protection of human health and the environment.

III. Summary of Major Comments to 1985 Proposal and 1991 Supplemental Notice

A. Comments Received in Response to the 1985 Proposed Rulemaking

1. Comments on 1985 Proposed Listing Decision

On November 29, 1985 (50 FR 49239), EPA proposed to list all used oils as hazardous waste, including petroleum-derived and synthetic oils, based on the presence of toxic constituents at levels of concern as a result of contamination during and adulteration after use. In 1985, the Agency also proposed special management standards for used oils that are recycled. Essentially, used oils that are disposed would have been subject to full subtitle C regulation, while recycled used oils could be managed in accordance with the proposed management standards developed and proposed under the authority of RCRA § 3014.

Many comments were received on the various aspects of the proposed listing of used oil, which are summarized as follows. Most commenters opposed the listing of used oil as a hazardous waste. The reasons given included that EPA's sampling was unrepresentative and flawed (*i.e.*, used oil samples were taken from storage tanks at used oil facilities rather than from the point of generation), used oil is no more hazardous than virgin oil, and the belief that the levels of constituents EPA found in used oils that were sampled and analyzed do not present a threat to human health. Some commenters asserted that EPA's concern is not with used oil itself but the mixing of used oil with other constituents that may render the used oil hazardous only because of post-use adulteration. Therefore, instead of listing all used oils, commenters recommended that EPA should list used oils as hazardous only if other

substances have been added after the oil's initial use.

A large number of commenters challenged the scope of the listing (*i.e.*, definition) and provided a number of examples where certain used oils should not be included in the listing because they do not contain constituents of concern at concentrations exceeding health-based levels that would cause the used oil to be listed. Some commenters proposed that only those used oils that contain toxic constituents, such as lead, arsenic, cadmium, chromium, 1,1,1-trichloroethane, trichloroethylene, tetrachloroethylene, toluene, and naphthalene, should be included in the listing. A number of commenters requested that in the proposed definition of used oil, the phrase "but is not limited to" should be stricken because it creates tremendous uncertainty as to what constitutes a used oil. Commenters also challenged EPA and indicated that the Agency exceeded its statutory authority by including synthetic and other non-petroleum derived used oils in the definition of used oil. Commenters also requested that used oil destined for recycling be excluded from the definition of used oil. A few commenters also requested that food grade oils be excluded because the Food and Drug Administration regulates these oils and requires that they meet health standards based on human consumption because they may contact food products. A number of commenters requested that EPA exclude dielectric waste oil from the listing because electrical equipment is not a source of the contaminants of concern and that dielectric oils are already controlled by the Toxic Substances Control Act.

A number of commenters expressed concern regarding EPA's proposed regulatory scope of mixtures of used oil and other materials. The commenters were mixed on their support of EPA's proposed exclusion for wipers contaminated with used oil. Those that supported the exemption stated that as long as a wiper contains no free liquid, as determined by the paint filter test, it presents a minimal threat to human health or the environment. These commenters also expressed the belief that there should be no set concentration limit for used oil in wipers, but the exclusion should be based on whether the wiper contains free liquids. Those that opposed the exclusion indicated that contaminated wipers can contain significant quantities of PCBs and other toxic constituents and therefore present a risk to health.

Many commenters supported EPA's proposal to exempt wastewaters containing *de minimis* amounts of used oil from the definition of hazardous waste. However, commenters stated that no set concentration limit should be established as a *de minimis* level. A few commenters opposed this exclusion on the grounds that it could present a threat to human health and the environment. Some commenters requested that the halogen level promulgated as part of the rebuttable presumption for used oil fuels be increased because *de minimis* amounts of solvents may inadvertently become mixed with used oil.

There was overwhelming support to exempt mixtures of sorptive minerals and used oil. However, some commenters requested that the word minerals be replaced with materials. The commenters' rationale was that minerals are actually adsorbents, meaning attracted to the surface, whereas other materials, such as treated wood and paper fiber, are absorbents, meaning becoming part of the material and more difficult to remove. Thus, these commenters asserted, non-mineral sorbent materials also would pose no risk to the environment.

2. Major Comments on 1985 Proposed Management Standards for Recycled Used Oil

On November 29, 1985 (50 FR 49212), EPA proposed a comprehensive set of management standards for various entities handling used oils. These proposed standards were tailored after the hazardous waste management standards of subtitle C, and included requirements for notification, tracking, recordkeeping, preparedness and prevention, testing, storage, and closure. The handlers included generators, transporters, recyclers, marketers, burners, and road oilers.

a. Generator Standards. Concerning management standards for generators, commenters were generally supportive of EPA's proposed regulations except for the following comments relating to specific provisions. Commenters expressed concern that the quantity limit for small quantity generators was too low. Commenters also advocated a change from determining a generator's regulatory status on a monthly basis to a 12-month average limit to account for periodic and/or seasonal variations in generation patterns. Commenters thought that the proposed 90-day time limit on accumulation did not provide enough time for generators to accumulate a full tank of used oil. Because some facilities generate small amounts of used oil, some commenters felt that a 180- or 270-day time limit would be more appropriate.

One commenter stated that the requirement to empty a leaking or otherwise unfit for service tank within 24 hours is unreasonable and more strict than the hazardous waste [illegible]quirements. One commenter stated th[illegible]t is unreasonable to require [illegible] whenever leak in a tank system oc[illegible] the whol[illegible] tank system must then b[illegible]bject to the [illegible]ards for new tank [illegible]ms. An example of this inequit[illegible]ovided by the commenters, could [illegible]r if the tank system develops a leak [illegible]ause of a faulty gasket and ther[illegible] whole system has to be replaced ra[illegible] than merely replacing the gasket. [illegible]w commenters expressed the opinio[illegible]at the proposed standards for used oil storage tanks far exceed the necessary standards for protection of human health and the environment. Some commenters stated that requiring secondary containment for newly installed tanks beyond the SPCC requirements amounted to regulatory overkill. One commenter requested EPA to provide clarification on the definition of tank because many tank-like structures may be pulled into the system although they may not warrant regulation. Many commenters expressed concern that the regulation of storage in underground tanks under RCRA § 3014 would be duplicative of the standards promulgated under Subtitle I of RCRA. Many commenters disagreed with EPA that ground-water monitoring provides a superior approach to leak detection.

b. Transporter Standards. Some commenters thought that the 10-day time limit for storing used oil at transfer facilities was an inadequate period of time for transporters to accumulate and consolidate sufficient quantities of used oil. One commenter requested that an exemption be provided for generators that transport used oil from isolated locations to a central storage site, which would reduce the regulatory burden on oil and gas production operations, contract drillers, gas processors, and pipeline operators.

Commenters expressed concern with the requirement proposed in 1985 that collectors provide recycling facilities with lists of their customers. This could lead to solicitation of the collector's customers by used oil recyclers, which could adversely impact the collectors.

c. Recycling Facility Standards. A few commenters requested that EPA allow for the co-management of used oil with hazardous waste under a permit-by-rule rather than requiring such facilities to apply for and obtain a modification to their existing Subtitle C operating permit. Commenters also challenged the fact that while EPA required analysis of

halogens, there is no EPA-approved test method for halogens. Some commenters also objected to the proposed requirement that facilities that manage both used oil and other hazardous wastes test their used oil for indicator parameters for each hazardous waste stream. Although many comments were received concerning testing frequencies, commenters generally did not agree on any particular frequency or on whether or not the Agency should impose a set testing frequency.

EPA received many comments both for and against the proposed requirements that used oil recycling facilities that are not in compliance with the permit-by-rule provisions on the effective date of the rule comply with the interim status provisions of 40 CFR part 265. A few commenters pointed out that corrective action for releases of used oil to the environment was not adequately addressed in the 1985 proposed rulemaking.

d. Dust Suppression. The commenters were generally in favor of banning used oil for dust suppression. One commenter requested that EPA consider a case-by-case approval of used oil as a dust suppressant provided the activity is permitted and waste analysis is conducted. A state agency recommended that the dust suppression ban be extended to refined oil and oil/water mixtures.

B. Comments Received in Response to 1991 Supplemental Notice

1. Listing Used Oil

The Supplemental Notice of September 23, 1991 (56 FR 48041), presented three options for identifying used oil as a hazardous waste. Option One was to list all used oils as proposed on November 29, 1985 (50 FR 49239), based on the potential for adulteration during use and environmental damage when mismanaged. Option Two was to list categories of used oil that were found to be "typically and frequently" hazardous because of the presence of lead, PAHs, arsenic, cadmium, chromium, and benzene. "Typically and frequently" was defined to mean that 50 percent or more of the samples in a used oil category exceeded the levels of concern. Under Option Three, the Agency proposed not to list used oils as hazardous, but rely on management standards developed under section 3014 of RCRA to control mismanagement of oil.

Commenters overwhelmingly supported Option Three, not to list used oil as a hazardous waste, but rely on management standards. Many of these commenters suggested that EPA should encourage recycling through education, collection, and management standards instead of a hazardous waste listing. Many commenters expressed concern that listing used oil would have a negative effect on the used oil recycling system. These commenters stated that due to excessive liability and disposal costs associated with handling hazardous wastes, they would be forced out of business or out of the used oil management system. They stated that this would result in having fewer collection centers resulting in decreased acceptance of DIY-generated used oil, and may lead to further mismanagement. A few commenters pointed out that their lease prohibits the handling of hazardous materials or wastes and the listing of used oil as a hazardous waste would thus force them out of business or require them to negotiate a costly new lease. Additionally, some commenters, primarily service stations and oil changers, are currently voluntarily accepting DIY-generated used oil. They stated that listing used oil as a hazardous waste would lead to the discontinuation of this service because of the potential liability and the increased cost of handling used oil.

Some commenters noted that DIY-generated used oil presents the biggest threat to human health and the environment because it is often disposed of improperly. Another view point shared by many commenters was that used oil is a resource that is recyclable as lube oil feedstock or as a fuel substitute, and EPA should not designate a valuable commodity as hazardous waste.

A few commenters stated that used oil should not be listed because it is no longer hazardous due to EPA's lead phase-down program. In addition, EPA's analyses of used oil were based on too few samples and these were unrepresentative of actual conditions. Some commenters expressed a reluctance to have EPA list used oil as a hazardous waste, but urged EPA, if used oil is to be listed, to list only those used oils that are disposed and not list used oils that are recycled.

A few commenters supported the proposal to list all used oils as hazardous waste. They stated that used oil has been historically mismanaged and presents a threat to human health and the environment. In addition, they referenced the "California experience" in support of listing. These commenters said that when California listed used oil as a hazardous waste, the resulting recycling program within the state increased the amount of used oil entering the used oil management system.

2. De Minimis Mixtures

EPA proposed exempting wipers, sorptive minerals, and oil filters that have been drained of free-flowing used oil from the definition of hazardous waste, if used oil were listed as a hazardous waste. EPA expressed its belief that many of these materials may not pose a threat to human health and the environment because of the very small quantities of used oil involved. The Agency also proposed the "one-drop" standard for determining whether or not free-flowing used oil is present in the mixtures.

The commenters were nearly unanimous in support of EPA's proposal to exclude wipers and sorptive minerals contaminated with small amounts of used oil from the proposed listing. A number of commenters requested EPA to expand the definition of sorptive minerals beyond the current definition of clay and diatomaceous earth to include synthetic adsorbents and other natural filter/absorbent media. A few commenters requested clarification as to the status of laundered clean wipers that do not contain free flowing used oil. A few commenters requested a clarification concerning recycling of used oil mixtures with high Btu value and instances where used oil cannot be separated from the mixture for burning a mixture as a used oil fuel.

3. Controlling Disposal of Used Oil

EPA believes that certain used oils may require disposal because they can not be recycled. In cases where the used oil is not recyclable and the disposal of the used oil is not controlled under the current subtitle C regulations (*e.g.*, because the used oil does not exhibit a hazardous waste characteristic), EPA wants to ensure that used oils are disposed of in an environmentally safe manner. EPA therefore requested comment on the appropriateness of developing guidelines for the disposal of used oil and the appropriateness of a total ban on the disposal of used oil.

Commenters supported EPA's proposal to develop specific guidelines for the disposal of nonhazardous oil under § 1008 of RCRA. Some commenters urged EPA not to impose a total ban on the disposal of nonhazardous oil. This is because some materials (*e.g.*, contaminated soil) can not be disposed elsewhere in an economically acceptable fashion. Some commenters supported a total ban on disposal of used oil mainly to ensure protection of the ground water and as a

method to promote recycling of all used oils.

4. DIY-Generated Used Oil

RCRA does not provide the authority to regulate household-generated waste prior to collection (*e.g.*, DIY-generated oil and filters), nor does it give EPA the authority to mandate collection programs for DIY-generated used oil. Over the past five years, EPA has developed public informational brochures to encourage DIY generators to recycle their used oil. EPA may develop more educational materials for the public and the regulated community on used oil recycling alternatives. EPA therefore requested comments on how to improve the recycling of DIY-generated used oil.

Many suggestions were received on ways EPA could encourage the acceptance and recycling of DIY-generated used oil. A majority of commenters, however, said that listing used oil as a hazardous waste would discourage recycling of DIY-generated used oil, primarily because many facilities indicated that they would no longer accept DIY-generated used oil because of the liability associated with collecting and handling hazardous waste. A state government agency stated that a primary reason service stations are not accepting DIY-generated used oil is the uncertainty over the past few years of whether EPA will list used oil as a hazardous waste and thus, require generators that have used oil on hand to pay for its disposal. Commenters indicated that the primary reason for the poor recycling rate of DIY-generated used oil is because of the lack of collection centers. Some major suggestions included the implementation of a curbside pickup program for DIY-generated used oil, requiring any entity selling motor oil to collect DIY-generated used oil, ensuring that used oil collection facilities be exempted from CERCLA liability requiring retailers to list nearby used oil collection centers, and establishment of a deposit-refund system.

5. Criteria for Recycling Presumption

EPA proposed to establish a presumption that all used oils, once collected, would be recycled and, therefore, would be subject to the proposed used oil recycling standards. However, EPA is aware of certain categories of used oils (*e.g.*, watery metalworking oils, oily bilge water) that may not be recyclable. Most used oils can be processed and treated to manufacture either burner fuel, lube oil base stock, to feedstock for refining. However, EPA gave consideration to providing an opportunity for used oil handlers to rebut the used oil recycling presumption and avoid compliance with the used oil recycling standards by documenting that their used oil is not recyclable in any manner. EPA requested comments on the suggested procedures for rebutting the recycling presumption and appropriate documentation.

The commenters were nearly unanimous in their support of the recycling presumption. However, the comments were mixed concerning the criteria for "recyclability" and the appropriate documentation. One commenter suggested that a one-time certification on the recyclability of a waste stream is adequate, assuming the facility's waste management plan does not change. Many of the commenters were supportive of the criteria EPA listed for determining recyclability, which included BTU content, water content, degree of emulsification, degree of viscosity, and the availability of economically and geographically acceptable recyclers. However, two commenters (refiners) stated that since none of the five criteria were examples of nonrecyclability and that all used oil can be recycled, whether used oil is actually recycled is strictly a matter of cost. One commenter questioned whether EPA had the authority to assume that all used oil was recyclable and, if not, to require certification and documentation.

Commenters were generally in agreement concerning the documentation requirements for the recycling presumption. There were only a few specific comments on the issue. One commenter suggested that a generator should not be allowed to determine recyclability but this should be the responsibility of a recycling facility. Another commenter suggested that documentation should be kept on-site and should not have to be sent to EPA.

6. Ban on Use as a Dust Suppressant

On November 29, 1985 (50 FR 49239), EPA proposed to ban the use of used oil as a dust suppressant (road oiling). The September 23, 1991, Supplemental Notice (56 FR 48041) stated that regardless of whether EPA lists used oils as a hazardous waste, EPA was still considering the ban of all used oils used for dust suppression. Specific comment was requested on how used oils could be used for dust suppression in an environmentally safe manner.

Most of the commenters supported the ban on using any used oil for dust suppression. Many of these commenters stated that used oil should not be used for road oiling given the potential adverse impact to water resources due to run-off. One commenter pointed out that surfactant additives in motor oil are generally anionic which prevents oil from bonding strongly to most negatively charged aggregate articles resulting in massive run-off. All of the state agencies commenting on this issue supported a ban.

Some commenters suggested that EPA should allow used oil to be used for dust suppression if it meets certain criteria such as not failing a characteristic test or the specification criteria for used oil fuel. Other commenters requested that nonhazardous used oil be allowed for road oiling. A few commenters urged the allowance of water contaminated with *de minimus amounts* of used oil to be used for dust suppression. On a related matter, some commenters wanted to know whether use of used oil for insect control or as a weed killer is allowed.

7. CERCLA Liability Issues

Section 114(c) of CERCLA contains the service station dealer's exemption from liability under the statute for used oil. To be eligible for the exemption, service stations are required to comply with the section 3014 of RCRA used oil management standards and accept DIY-generated used oil. EPA requested comment on how to ensure that small quantity generators could be eligible for this exclusion if they were conditionally excluded from most of the regulatory requirements similar to subtitle C.

The commenters were in agreement that the service station exclusion contained in section 114(c) of CERCLA should be implemented. Many commenters encouraged EPA to include facilities that collect DIY-generated used oil (*e.g.*, public facilities), regardless of whether they are service stations, to promote recycling of the DIY used oil segment. A commenter requested that EPA clarify that "quick oil change and lubrication facilities" are in the definition of "service station dealers" and that "used oil destined for recycling" should be included instead of just "recycled" used oil. One commenter requested that refiners and downstream users be included in the definition of service station to obtain the CERCLA liability exemption.

Many commenters expressed support for the elimination of generator category distinction (*i.e.*, small quantity generators versus large quantity generators). In addition to the reduction in confusion and handling requirements for used oil, these commenters noted that all generators could then benefit from the CERCLA liability exemption.

8. Storage

EPA proposed different requirements for storage for different segments of the used oil industry to respond to the potential risks associated with used oil handling. EPA requested comment on storage standards to address the potential hazards associated with used oil. EPA did not propose requirements for underground tanks used to store used oil, because the Agency believes that the current requirements for USTs in 40 CFR part 280 appear to be adequate.

Most commenters supported EPA's basic intent to establish minimum technical standards for the storage of used oil. A number of commenters supported the requirement that all generators should comply with minimal technical standards and that there should be no exclusion for small quantity generators; however, some opposed this approach and supported a distinction between generators based on the amount of used oil generated. The majority of commenters requested that the proposed requirement for daily inspections should be reduced to weekly, biweekly, or monthly. A number of commenters were against the proposed 50-foot buffer zone requirement primarily because it would be impossible for quick lube facilities to implement this requirement due to the limited size of their facility and it would be inappropriate because of the low flash point of motor oil. An alternative that was suggested was for facilities to comply with the NFPA's "Flammable and Combustible Liquids Code" for buffer zones. One commenter suggested that satellite accumulation areas that are exempt from the storage standards be allowed. One commenter pointed out that a definition and requirement for a continuously fed tank is necessary.

9. Secondary Containment for Tanks

EPA requested comment on its proposal to require Spill Prevention, Control and Countermeasure (SPCC)-recommended secondary containment or to require RCRA subtitle C secondary containment requirements for controlling releases and spills of used oil from aboveground storage tanks at used oil processing and re-refining facilities. The SPCC options include berms, dikes, or retaining walls along with an oil-impervious floor designed to contain used oil and avoid significant contamination of soil and nearby surface and ground water resources.

Most of the commenters agreed with EPA's proposal to require SPCC-recommended secondary containment but were not supportive of also requiring subtitle C secondary containment requirements for aboveground storage tanks. A few commenters noted that requiring compliance with subtitle C would not add a significant margin of safety compared to the cost of upgrading the tanks. Commenters argued that most of the aboveground storage tanks are already in compliance with SPCC and, with few exceptions, these requirements have been an acceptable vehicle for protecting human health and the environment. One commenter supported the measure to require owners/operators storing used oil in aboveground storage tanks to comply with both SPCC and subtitle C requirements. Their rationale was that such requirements address different management issues and are not unreasonably burdensome.

10. Financial Responsibility

In the 1985 proposed rule, used oil recycling facilities were to be subject to the subtitle C financial responsibility requirements (50 FR 49256). Many comments that were received on this proposal suggested that such requirements would have detrimental effects on the used oil recycling market. In the September 1991 Supplemental Notice, EPA requested comment on deferring the requirements.

The commenters were nearly evenly divided on EPA's proposal to defer the financial responsibility requirements for used oil recycling facilities. Those commenters that supported the deferral indicated that because recyclable used oil has economic value, there is an incentive to move as much oil as possible. These commenters also agreed with EPA's contention that requiring financial responsibility would impact the economic viability of used oil recyclers.

Those commenters that did not support EPA's proposal to defer the financial responsibility requirements questioned the practicality of requiring recyclers to comply with the closure and post-closure requirements while not requiring the financial mechanisms to ensure that these activities are done. A few commenters noted that there are 63 used oil recycling sites listed on the National Priorities List, which indicates that financial responsibility requirements are necessary. A state agency urged EPA to require some level of financial responsibility because used oil, when mismanaged, presents as much risk to human health and the environment as any other hazardous waste.

11. Permit-By-Rule

In the 1985 proposed rule, EPA used the authority under section 3014 of RCRA to propose permitting requirements for used oil recycling facilities (50 FR 49225, 49257). RCRA section 3014(d) provides that owners and operators of used oil recycling facilities are deemed to have a permit for their recycling activities and associated tank and container storage, provided they comply with the used oil management standards promulgated by EPA. Thus EPA proposed that owners/operators of used oil recycling facilities would be eligible for a permit-by-rule eligibility, including those undertaken by facilities that recycle or store used oil in surface impoundments and facilities that manage other hazardous waste in addition to used oil (co-management facilities).

Most of the comments pertaining to the permit-by-rule proposal were not supportive of EPA's proposal based on many concerns. A number of commenters opposed EPA's proposal that only those facilities that did not manage other hazardous wastes should be eligible. Their contention was that section 3014 of RCRA did not expressly state that co-management facilities were ineligible. A few commenters were against the permit-by-rule concept altogether and favored a site-by-site permitting approach. A few commenters requested EPA to allow permit-by-rules only for facilities that handled nonhazardous oil and require those facilities that handled hazardous oil to comply with subtitle C. Some commenters were in support of EPA's proposed permit-by-rule requirements.

IV. Definition of Used Oil

EPA's 1985 proposal to list used oil as a hazardous waste included the following proposed definition of used oil:

"Used oil" means petroleum-derived or synthetic oil including, but not limited to, oil which is used as a: (i) lubricant (engine, turbine, or gear); (ii) hydraulic fluid (including transmission fluid); (iii) metalworking fluid (including cutting, grinding, machining, rolling, stamping, quenching, and coating oils); (iv) insulating fluid or coolant, and which is contaminated through use or subsequent management.

During the 1985 comment period, many commenters criticized the vagueness of the proposed definition. One issue commenters raised was that it was unclear from the definition what constitutes "contamination." The use of the phrase "but not limited to" also was challenged. Commenters contended that such a phrase could be interpreted to

include varieties of oil such as food grade oils within the definition of used oil. Commenters suggested that EPA specifically list in the definition the types of oils they intended to regulate.

Another point that commenters disputed about the definition of used oil was use of the term "or subsequent management." They pointed out that the statutory definition of used oil specifies contamination only "as a result of use," not via subsequent management. Used oils that become adulterated after use should be subject to management standards that discourage this practice. Commenters agreed that used oils contaminated with hazardous wastes should be subject to full subtitle C requirements.

Many commenters questioned the basis for including synthetic oils in the definition of used oil. The statutory definition of used oil does not explicitly include synthetic oils; therefore, commenters asserted that used synthetic oils should not be considered "used oils." Several comments were received regarding metalworking oils as well. Commenters requested that copper and aluminum wire drawing solutions be excluded from the definition of used oil. Copper drawing solution is an emulsion of 1 to 2 percent oil in water. Aluminum drawing solution is considered a neat oil (*i.e.*, 100 percent oil). However, one commenter stated that aluminum drawing solution is nonhazardous and meets the EPA used oil fuel specification test.

EPA carefully evaluated the comments referring to synthetic oils, including those comments where the commenter submitted data. EPA has concluded that synthetic oils that are not petroleum-based (*i.e.*, those produced from coal or oil shale), those that are petroleum-based but are water soluble (*e.g.*, concentrates of metalworking oils/fluids), or those that are polymer-type, are all used as lubricants similar to petroleum-based lubricants, oils, and laminating surface agents. Upon use, synthetic oils become contaminated with physical or chemical impurities in a manner similar to petroleum-based lubricants. This contamination during (or as a result of) use is what makes used oil toxic or hazardous. Upon collection, these used oils are not distinguishable from non-synthetic used oils, except in the case of segregated, water-based metalworking oils/fluids. All used oils, in general, are managed in similar manners (*e.g.*, burned for energy recovery, re-refined to produce lube oil feedstock, or reconstituted as recycled products). Therefore, EPA believes that all used oils, including used synthetic oils, should be regulated in a similar fashion and, hence, EPA has decided to include synthetic oils in the definition of used oil as discussed below. For the large part, the definition of used oil includes used lubricants of all kinds that are used for a purpose of lubrication and become contaminated as a result of such use.

Today, EPA is promulgating a regulatory definition for "used oil" at 40 CFR 260.10 as follows:

> Used oil means any oil that has been refined from crude oil, or any synthetic oil, that has been used and as a result of such use is contaminated by physical or chemical impurities.

This regulatory definition of used oil is drawn from the statutory definition of used oil found at section 1004(36) of RCRA and is similar to the current definition of used oil found at 40 CFR 266.40(b). EPA believes that this definition covers the majority of oils used as lubricants, coolants (non-contact heat transfer fluids), emulsions, or for similar uses and are likely to get contaminated through use. Therefore, specific types of used oils are not identified in the definition.

The definition includes all used oils derived from crude oil, as well as used synthetic oils that are contaminated by physical (*e.g.*, high water content) or chemical (*e.g.*, lead, halogens, or other toxic or hazardous constituents) impurities as a result of such use. However, with today's rule, EPA is interpreting the definition of used oil contained in the statute to include used synthetic oils, including those derived from coal or shale or from a polymer based starting materials. The Agency explained its rationale for including synthetic oils in the definition of used oils in the preamble for the November 1985 proposed used oil listing (50 FR 49262). The Agency's position continues to be that synthetic oils should be included in the definition of used oil due to the fact that these oils are generally used for the same purposes as petroleum-derived oils, are usually mixed and managed in the same manner after use, and present the same level of hazard as petroleum-based oils. In addition, the Agency believes that Congress could not envision how prevalent synthetic oils would become when it passed the UORA in 1980. Congress surely would not have intended a result where large amounts of vehicle engine oils are not covered by RCRA section 3014.

The commenter-submitted data concerning synthetic oils suggest that properties of synthetic oils that are polymer based are akin to oils produced from crude base stock and can be used effectively as crude oil substitutes. When used, they become contaminated with physical or chemical impurities and are not readily distinguishable from used oils that are crude oil based.[4] Today's definition does not include based products used as solvents refined from crude oil or manufactured from synthetic materials. The Agency has always viewed petroleum-based solvents as wastes separate and distinct from used oil. In the 1989 proposal for Land Disposal Restriction Standards, ignitable liquids encompass materials like solvents, paint thinners, contaminated oils, and various organic hydrocarbon. Some of these have been thought to contain organic constituents from the listed wastes F001–F005. (See 54 FR 48420, November 22, 1989.)

The definition of used oil promulgated today does not include used oil residues or sludges resulting from the storage, processing, or re-refining of used oils. EPA believes that the types and concentrations of hazardous constituents in used oil residues and sludges are different from those typically found in used oils, and therefore these residues and sludges warrant separate regulatory consideration. EPA is going to continue to study used oil residues and sludges, as well as all of the residuals from used oil re-refining activities. EPA may finalize the residual listings proposed in the 1991 Supplemental Notice or propose a listing determination for the specific used oil sludges and residuals in a future rulemaking. Residuals are covered under the existing RCRA regulations. Currently, these wastes are subject to the hazardous waste characteristics if a residue, sludge, or residual resulting from used oil storage, processing, or re-refining exhibits one or more of the characteristics of hazardous waste, then it must be managed as a hazardous waste in accordance with all applicable Subtitle C requirements. However, as discussed later in this preamble, distillation bottoms derived from used oil re-refining are conditionally exempt from the used oil management standards promulgated today, as well as the Subtitle C hazardous waste regulations, when the distillation bottoms are used as ingredients in asphalt products. In the September 1991 Supplemental Notice, EPA proposed to list as a hazardous waste several residuals from used oil

[4] A letter from Mobil Corporation to EPA dated July 6, 1992. A report by Independent Lubricants Manufacturers Association, "Waste Minimization and Wastewater Treatment of Metalworking Fluids," 1990.

processing and re-refining operations. Distillation bottoms were among the residuals that EPA proposed to list. Following the 1991 Notice, EPA received data from several commenters indicating that distillation bottoms from the processing and re-refining of used oil do not fail the toxicity characteristic. EPA has no other recent data on the composition or toxicity of these residuals. In addition, commenters have indicated that the use of distillation bottoms as ingredients in asphalt materials is a very common practice. Furthermore, distillation bottoms, when used as asphalt extender materials, also may be regulated under the Toxic Substances Control Act, as applicable. EPA believes, based on the Toxicity Characteristic (TC) data provided by commenters, that the distillation bottoms from re-refining of used oil do not exhibit the characteristic of toxicity. Therefore, the Agency has deferred a listing decision for these residuals and has provided a conditional exemption from the hazardous waste regulations of parts 262 through 266, 268, 270, and 124 and the part 279 standards for certain residuals that are incorporated into asphalt (40 CFR 279.10(e)(4)).

V. Listing Determination for Recycled Used Oil

A. General

Section 3001 of RCRA provides the Agency with the general statutory authority under RCRA for identification and listing of hazardous wastes. In 1984, HSWA amended section 3014 of RCRA by specifically requiring EPA to exercise its hazardous waste identification and listing authorities and propose a listing determination for used automobile and truck crankcase oils and other used oils.

EPA's technical criteria for determining whether or not a solid waste should be listed as a hazardous waste are codified at 40 CFR 261.11. Section 261.11(a)(1) allows EPA to list a solid waste as a hazardous waste if the solid waste exhibits any of the characteristics of hazardous waste. Section 261.11(a)(3) directs that a waste shall be listed as hazardous if it contains any of the toxic constituents listed in appendix VIII and, after considering the following factors, the Administrator concludes that the waste is capable of posing a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed. The factors to be considered in making this determination include toxicity, fate and transport, mobility and persistence, and the bioaccumulation potential of the constituents in the waste, as well as plausible mismanagement scenarios (40 CFR 261.11(a)(3)(vii)) and other Federal and state regulatory actions with respect to the waste (40 CFR 261.11(a)(3)(x)).

In making a listing determination for used oils destined for disposal, EPA paid considerable attention to the current Federal regulations governing the disposal of non-hazardous and hazardous wastes. EPA published a final listing determination for used oils destined for disposal on May 20, 1992 (57 FR 21524). EPA concluded that the existing EPA regulations, especially the toxicity characteristic, adequately regulate the disposal of used oils that exhibit a characteristic of hazardous waste. Other EPA programs (*e.g.*, the recently promulgated municipal solid waste landfill criteria, the stormwater requirements, and TSCA regulations), as well as other Federal and state regulations, adequately control the disposal of non-hazardous used oils that do not exhibit a characteristic of hazardous waste.

EPA has decided to use a similar regulatory approach for recycled used oils as the Agency used for used oils that are disposed. The Agency proposed in September 1991 that the listing of used oil as a hazardous waste may not be necessary if the Agency promulgates used oil management standards that are protective of human health and the environment. Commenters who responded to the September 1991 notice overwhelmingly supported this approach. EPA has decided to adopt this approach and consider the technical criteria for making a listing determination, given a universe of used oils that are managed in accordance with a protective set of management standards.

In making a listing determination for recycled used oils, EPA evaluated the technical criteria for listing a waste as hazardous, the fate and plausible mismanagement of used oils that are recycled, and the impacts of the management standards proposed in 1985 and 1991 and finalized today. EPA has determined that used oils that are recycled do not pose a substantial present or potential hazard to human health or the environment when the used oils are managed properly from the time they are generated until they are recycled. As discussed in the next section of this preamble, EPA believes that used oil that is recycled and handled in compliance with the used oil management standards promulgated today will not pose serious adverse risks to human health and the environment. Therefore, EPA is finalizing its decision not to list used oils that are recycled as hazardous waste. Integrally related to this "no listing" decision for recycled used oil, the Agency also is promulgating management standards for recycled used oils to assure protection of human health and the environment from potential damages due to the mismanagement of recycled used oils.

B. Summary of EPA's Listing Determination and Rationale for Recycled Used Oils

As discussed below, the Agency has determined that the major potential risks associated with the mismanagement of used oils during recycling can be adequately controlled through management standards promulgated under the authorities of RCRA section 3014. The used oil management standards promulgated today are designed to control the accumulation, storage, transportation, and general management of recycled used oils. The management standards promulgated today protect human health and the environment from potential mismanagement of recycled used oils without imposing undue regulatory and financial burdens upon the used oil recycling system. The goal of today's regulations is to ensure the recycling of all used oils in a safe and protective manner. These new Federal management standards address the major risks (discussed later) identified by the Agency, associated with management of used oil eliminating the need for the Agency to list used oils as hazardous waste per the listing criteria provided in § 261.11(a)(3).

Today's decision not to list recycled used oils is based on the adequacy of both existing Federal regulations and today's newly promulgated management standards to address the potential mismanagement of used oil, similar to the basis for the May 20, 1992 decision concerning used oil destined for disposal. Briefly, used oil mismanagement and related risks are controlled under other regulations and statutes; in particular, the 40 CFR part 280 underground storage tank (UST) regulations, the 40 CFR part 112 spill prevention, control and countermeasure (SPCC) program, the stormwater regulations, and the lead phase-down program. These regulations will be supplemented by the used oil management standards promulgated today for recycled used oils. As discussed in the preamble to the May 20, 1992 used oil regulation, the SPCC program requires facilities to have a contingency plan in place to ensure that

oil spills are prevented, controlled via containment measures, and responded to when oil spills occur and reach navigable waterways. The UST program similarly focuses on control and prevention of oil leaks from underground petroleum storage tanks including waste oil tanks. These two programs are clearly related to the management standards promulgated today and cover the used oil universe.

The management standards promulgated today specifically address the following major risks that EPA has identified with past practices in managing recycled used oil. These are:

1. *Improper storage.* EPA notes that in the past, used oil was both overaccumulated and handled carelessly, resulting in a number of release incidences, from used oil storage units. These releases have been documented at off-site processors and re-refiners.[4] Today's management standards have stringent secondary containment and spill cleanup provisions for used oil processors and re-refiners. Also, storage of used oil in unlined surface impoundments (unless only *de minimis* amounts of used oil are present) is banned outright.

2. *Road Oiling.* EPA has documented several cases of environmental degradation that were caused by oiling roads with adulterated used oil. Today's management standards ban the use of used oil for road oiling and dust suppression purposes. However, States that currently allow used oil to be used for road oiling, and/or those States that want to set standards to control the use of used oil as a road oiling agency, may petition EPA to allow road oiling in the individual States.

3. *Adulteration with hazardous waste.* In a number of documented instances used oil has been used either deliberately or inadvertently as a carrier for the illegal disposal of hazardous waste. The addition of hazardous waste, or "adulteration," results in a more toxic mixture that may be sold, burned, or even dumped. Today's management standards address adulteration in four main ways:

- The "rebuttable presumption" provision of 40 CFR part 266, subpart E, which currently applies to used oil burned for energy recovery, has been expanded to cover all used oils, regardless of intended disposition;
- Used oil processing and re-refining facilities have to develop specific sampling and analytical plans to document that they do not accept hazardous waste/used oil mixtures;
- All used oil handlers must label their tanks and containers used to store used oil with the term "used oil," to assist employees in identifying which units are used exclusively for used oil storage and to avoid inadvertent mixing with other wastes; and
- The existing invoice system in 40 CFR part 266, subpart E for used oil fuels has been supplemented with a tracking system consisting of acceptance and delivery records. Tracking of used oil shipments applies to all used oil transporters and processing and re-refining facilities. The tracking system will assist in identifying accountability, should mixing be suspected.

Finally, EPA notes that two other areas of potential risk are not addressed by today's management standards, but these risks already have been reduced by in past agency actions. As noted above, the Agency is postponing listing determinations on used oil processing residuals. Although cases of environmental damages due to improper management of residuals have been documented, these cases involved residuals from old, out-of-date processes (*i.e.*, acid clay re-refining). Data received in response to the September 1991 Supplemental Notice indicate that residuals from newer processes do not exhibit the toxicity characteristic. Residuals that are destined for disposal are still subject to the hazardous waste characteristics, and in 1990, EPA promulgated the toxicity characteristic rule, which replaced the extraction procedure (EP) toxicity test. If used oil residuals, including distillation bottoms derived from used oil processing and re-refining, are recycled as used oil fuels, then the management of the residuals is subject to the management standards promulgated today. Distillation bottoms that are recycled as feedstocks in the production of asphalt materials are not subject to the management standards promulgated today. EPA will gather and assess information on newer technologies before reaching any further decisions on the regulatory status of residuals that are currently generated by used oil re-refiners.

EPA is aware of concerns raised over burning used oil as a fuel. The 1985 used oil fuel specification, however, was established to control the risks from burning used oil, thus it represents the Agency's best current judgment as to the level of control necessary to protect human health and the environment. Thus, the burning of used oil in compliance with the existing standards is not a "plausible mismanagement scenario" requiring the listing of recycled used oil as a hazardous waste. The concerns focus on the current lead specification of 100 ppm and whether this threshold provides adequate protection. RCRA restricts the burning of off-specification used oil for energy recovery to certain industrial facilities (e.g., industrial furnaces and utility burners) and space heaters. While facilities that burn off-specification used oil fuel are not required to control air emissions under RCRA, some of these facilities may be subject to Clean Air Act controls. The Agency plans to study these issues and, should regulatory controls be deemed necessary, EPA may take appropriate actions under RCRA or other statutory authority.

As discussed above, these rules address the major risks associated with used oil recycling including improper storage, road oiling, and adulteration with hazardous waste. These standards should prevent the kinds of mismanagement that has occurred in the past resulting in environmental damage. EPA has concluded that the management standards promulgated today in combination with other existing regulations provide adequate protection of human health and the environment and thus make it unnecessary to list used oil as a hazardous waste. EPA traditionally has based listing determinations on the risks posed by land-based management scenarios (*e.g.*, plausible land disposal mismanagement). Today's used oil management standards do address the technical criteria for listing of waste as hazardous under 40 CFR 261.11(a)(3).

EPA wishes to reemphasize that its decision not to list recycled used oil as a hazardous waste is based solely upon its evaluation of the technical listing criteria contained in 40 CFR 261.11(a)(3). In particular, EPA has not taken into account the potential stigma associated with classifying used oil as hazardous waste raised by commenters on the 1985 and 1991 proposals. Some consideration was given to the impacts of used oil management standards on used oil recycling in developing the standards, as required by section 3014(a) of RCRA. Once the standards were developed, however, EPA made today's listing determination by evaluating the resulting standards solely in terms of whether they would address the risks caused by plausible mismanagement of recycled used oil. EPA notes that the used oil standards address the same types of mismanagement, particularly spilling and improper land disposal, typically addressed by Subtitle C controls. In addition, the used oil management standards will be enforced under the same authorities (*i.e.*, section 3008 of RCRA) as are the hazardous waste regulations. For all of the above reasons, EPA determines that listing of recycled used oil as a hazardous waste is unnecessary.

[4] *Summary Descriptions of Sixty-Three "Used Oil" Superfund Sites.* Final Draft. U.S. EPA, May 1992.

VI. Final Management Standards for Recycled Used Oils

A. General Approach for Used Oil Management

On November 29, 1985 (50 FR 49212), EPA proposed a comprehensive set of management standards for generators, transporters and processing and re-refining facilities that handle and recycle used oil. The management standards proposed in 1985 were very similar to the management standards promulgated for handlers of RCRA hazardous wastes since the Agency also proposed to list used oils as hazardous wastes. EPA received substantial public comment on the 1985 proposed requirements. On September 23, 1991 (56 FR 48000), EPA published a Supplemental Notice of Proposed Rulemaking that discussed the Agency's recent data collection activities for the identification and listing of used oil and discussed several options for used oil management standards. The intent of the management standards alternatives identified and discussed in the 1991 Supplemental Notice was not to replace or withdraw the 1985 proposed standards but to set forth options to (a) clarify or modify certain 1985 proposed standards, (b) defer selected standards (*e.g.*, financial responsibility), and (c) add new requirements (*e.g.*, recordkeeping and reporting requirements for certain generators and transporters). The Agency requested and received a substantial number of comments on the specific approaches that the Agency was considering and that were discussed in the 1991 Supplemental Notice.[6]

After reviewing and analyzing comments in response to both the 1985 proposed rulemaking and the 1991 Supplemental Notice of Proposed Rulemaking, the Agency is adopting an approach for the management of used oils, described below, under which one set of management standards (with certain exemptions for used oil mixtures that contain de minimis quantities of used oil) will control the management of used oils that are recycled. The Agency's basis for setting these standards includes documented release and damage information, quantities of used oil managed by each segment of the used oil management system, the adequacy of current management practices, and the potential economic impacts that could be imposed on the regulated universe.

Based upon evidence provided by documented damages at sites on the National Priorities List (NPL) and by updating the site-specific information previously used to support alternative management standards discussed in the 1991 Supplemental Notice, EPA has concluded that storage practices at facilities that handled used oil have resulted in the vast majority of known instances of used oil mismanagement. EPA also confirmed this finding through a review of enforcement cases prepared by Regional enforcement officials to identify environmental damages that occurred at RCRA facilities managing used oil in solid waste management units. EPA has documented damage and release information from both NPL sites and RCRA-permitted facilities. Detailed descriptions of the damages at 63 NPL sites where used oil was managed are presented in "Summary Descriptions of Sixty-Three 'Used Oil' Superfund Sites." A summary of used oil-related damages at RCRA-permitted facilities where used oil was managed is presented in "Summary Descriptions of Used Oil-Related Damages at RCRA-Permitted Facilities." A copy of each of these documents is in the docket for today's rule.

The Agency has determined that it is necessary to develop management standards to address the major risks discussed earlier associated with management (and plausible mismanagement scenarios) of used oils within the used oil recycling system. Primarily, the management standards promulgated today focus heavily on used oil processors and re-refiners and include storage and release response requirements, tracking and recordkeeping requirements, and bans on certain practices that have caused problems (*i.e.*, road oiling and the storage of used oil in surface impoundments not regulated under subtitle C of RCRA). The management standards cover all sectors of the used oil universe and are codified in a new part, part 279, of title 40 of the CFR.

Generally, EPA is establishing (1) controls on the storage of used oil in aboveground tanks and containers to minimize potential releases from these units; (2) tracking and recordkeeping requirements for used oil transporters, processors and re-refiners to provide a level of confidence within the system that used oils destined for recycling are in fact recycled by authorized facilities; and (3) standards for the cleanup of releases to the environment during storage and transit and for the safe closure of storage units at processing and re-refining facilities to mitigate future releases and damages. The Agency believes this approach will address potential hazards to human health and the environment from the management (including plausible mismanagement scenarios), of all used oils by used oil handlers.

EPA believes that, irrespective of whether used oils exhibit a characteristic of hazardous waste, used oils can pose some threat to human health and the environment (*e.g.*, used oils can form a sheen on water and make it non-potable). Therefore, it is important that used oils are handled in a safe manner from the point of generation until recycling, reuse, or disposal.

As stated in the 1991 Supplemental Notice of Proposed Rulemaking and as supported by most of the public comments received by the Agency, the Agency has decided to implement used oil management standards using a two-phased approach. The proposed phased approach is designed first to develop basic management standards to address the potential risks associated with management (including plausible mismanagement) practices of used oil recycling industry. Used oil mismanagement scenarios include storage, collection/shipping, and processing or re-refining. At a later date, as the Agency monitors the effectiveness of regulatory approach and receives more information, the Agency may adopt additional measures as necessary to address other potential problems.

The management standards adopted today are designed to address the potential hazards associated with improper storage and handling of used oil by establishing minimal requirements applicable to used oil generators, transporters, used oil processors, and re-refiners, and off-specification used oil burners. These requirements are selected from both the 1985 proposed standards and the 1991 proposed alternative management standards, taking into account public comments, an assessment of economic impacts on the regulated community, an assessment of how the management standards will impact the market for recycled used oil, and an assessment of the effectiveness of today's regulations, combined with other requirements, in controlling the risks posed by the improper management of used oil.

Today's management standards cover all used oil handlers and requirements including detection and clean up of used oil releases associated with storage and transportation, controls on storage,

[6] EPA received more than 600 comments during the comment period for the September 1991 Supplemental Notice. EPA also received over 100 comments on the notice after the close of the comment period.

analytical requirements to assure that used oils are not mixed with hazardous wastes, recordkeeping requirements, and the existing 40 CFR part 266, subpart E standards for the rebuttable presumption of mixing. Today's requirements also include closure standards for used oil processing and re-refining facilities. These requirements also address hazards associated with road oiling and disposal practices. The Agency has previously evaluated disposal requirements for hazardous and non-hazardous used oils under RCRA to protect against potential hazards from land disposal of used oil in the context of the Agency's decision not to list used oil destined for disposal (57 FR 21524, May 20, 1992).

After today's rule is implemented, EPA intends to evaluate the protective nature of this initial set of requirements and the effects these standards have had on the used oil recycling market, prior to developing additional standards or developing non-regulatory incentive programs to promote and increase used oil recycling. After such an evaluation, EPA may impose additional management standards at a later date. EPA will weigh the increase in potential environmental benefits against economic impacts prior to developing and imposing additional RCRA requirements, as required by RCRA section 3014.

As part of a comprehensive approach to addressing the management of used oil, EPA encourages the recycling of DIY-generated used oils (*e.g.*, household-generated used oils). Currently, DIY-generated used oils (approximately 193 million gallons annually) are not widely recycled. In fact, DIY-generated used oils are often improperly disposed. The Agency does believe, however, that since 1985, the recycling rate for DIY-generated used oils has been increasing as a result of public and private sector efforts.[1] EPA discussed several non-regulatory approaches (*i.e.*, economic incentives) to encourage DIY used oil recycling in the 1991 Supplemental Notice. EPA received a significant number of comments on these approaches (summarized in Section II of this preamble). The comments generally indicated that EPA should not go forward with the development of economic incentive programs at this time, but allow private sector programs and state-initiated programs to address the issue of DIY used oil collection. Since the 1991 Supplemental Notice was published, EPA has initiated a study of non-regulatory approaches for promoting DIY used oil collection. If the results indicate that incentives can promote recycling, then the Agency may address the establishment of such incentives for encouraging the recycling of DIY-generated used oils later.

The management standards promulgated today contain basic, good housekeeping standards for the management of used oil. EPA considered an alternative approach in which no management standards would be issued until the Agency had developed a comprehensive, risk-based management scheme for used oil, which would address DIY-generated oil, used oil fuels burned by industrial burners, used oil transportation, and other used oil recycling and re-refining activities. Although this type of approach may have the advantage of providing time for EPA to collect more information on used oil management practices and avoiding piecemeal regulation of the industry, factors in favor of the phased approach include providing immediate protection to human health and the environment by addressing the primary sources of hazards identified by EPA including, improper storage, road oiling, and adulteration with hazardous waste. As stated above, the 1991 proposed two-phased approach provides the opportunity for changing regulatory provisions (if necessary) in Phase II, based on feedback from the implementation of Phase I. EPA believes that the approach adopted today will allow for adjustments as problems of over- or under-regulation are identified in the future.

B. Recycling Presumption

Various authorities are available to the Agency to control the management of used oils. RCRA section 3014 provides EPA with the authority to regulate generators, transporters, processing and re-refining facilities, and burners that handle recycled used oil or used oils that are to be recycled, regardless of whether or not the used oils are identified as hazardous waste. Section 3014 of RCRA does not, however, provide the Agency with regulatory authority over used oils that are not recycled. As stated in the May 20, 1992 rulemaking, the Agency believes that other RCRA authorities and other EPA and non-EPA regulations adequately control the management of used oils that are not recycled.

In the 1991 Supplemental Notice, EPA proposed a presumption of recyclability for all used oils. The presumption was based on industry data which suggested that once used oil enters the recycling system the majority of the used oil is recycled by burning for energy recovery or some other manner, such as refining. Under the proposed presumption, the Agency would have presumed that all used oils would be recycled, unless a used oil handler documented that the used oil cannot be recycled. In the 1991 notice, EPA also proposed several criteria used oil handlers could use to rebut the recycling presumption. The comments that EPA received in response to the recycling presumption were very supportive. Commenters indicated that the recycling presumption would ensure that used oils remained in the used oil recycling system. However, many commenters also indicated that the criteria that the Agency proposed for rebutting the presumption are not necessary, since they argued that all used oils can be recycled and the selection of a recycling method depends on the physical characteristics of the used oil (*e.g.*, water content, level of contamination) and the corresponding cost of recycling the used oil.

After considering the public comments supporting the recycling presumption, and the difficulties associated with promulgating and enforcing the proposed "recyclability criteria," the Agency has decided that specific criteria to rebut the presumption are not necessary. The Agency agrees with the commenters that the physical characteristic of the used oil and the used oil recycling market will dictate the conditions for recycling of used oil. However, the Agency has retained the recycling presumption because the presumption simplifies the used oil management system by ensuring that generators and others may comply with one set of standards, the part 279 standards promulgated today, regardless of whether the used oil exhibits a hazardous characteristic and regardless of whether the used oil will ultimately be recycled or disposed. In other words, the generator (or any other person who handles the oil prior to the person who decides to dispose of the oil) need not decide whether the used oil eventually will be recycled or disposed and thus need not tailor its management of the oil based upon that decision (and, if destined for disposal, whether the used oil is hazardous). Rather, the part 279 standards apply to all used oils until a person disposes of the used oil, or sends it for disposal.

The recycling presumption will not apply once the generator or other person disposes or sends the used oil for

[1] A survey conducted by the Convenient Automotive Services Institute, which was undertaken earlier this year, indicates that half the states have private sector-operated DIY used oil collection programs. Also, more than 30% of the states have public sector-operated DIY used oil collection programs.

disposal. Today's rule does not impose any recordkeeping requirements on such persons to demonstrate that the oil is destined for disposal. Rather, they must continue to comply with existing requirements for used oil disposal as listed in part 279, subpart I. The used oil disposal must be done in compliance with all applicable regulations (*i.e.*, the generator must determine whether the used oil exhibits any characteristic and, if so, must manage it as a hazardous waste). If used oil is recycled, however, no characteristic determination is required, but all parties handling the used oil must comply with the part 279 management standards.

For used oil processing and re-refining residuals, a hazardous waste determination will be necessary when the residuals are managed in a manner other than recycling for energy recovery or when re-refining distillation bottoms are used as a feed material for asphalt products (see discussion in Section IV of this preamble).

C. Rebuttable Presumption of Mixing for Used Oil

The rebuttable presumption currently codified at 40 CFR 266.40(c) provides that used oil containing more than 1,000 ppm of total halogens is presumed to be mixed with chlorinated hazardous waste listed in 40 CFR part 261, subpart D. Persons may rebut the presumption by demonstrating that the used oil has not been mixed with hazardous waste. EPA does not presume mixing has occurred if the used oil does not contain significant concentrations of chlorinated hazardous constituents listed in appendix VIII of part 261.

In 1985, EPA promulgated the used oil fuel specification. EPA set the specification limit for total halogens at 4,000 ppm. EPA set this specification limit for total halogens based upon emission standards modelling results. EPA also promulgated the rebuttable presumption of mixing in 1985. The rebuttable presumption limit for halogen content was set at 1,000 ppm, based upon probable mixing scenarios. The Agency believes (due to enforcement experience) that used oils exhibiting a total halogen level greater than 1,000 ppm have most likely been mixed with chlorinated hazardous wastes.

The Agency wants to discourage all mixing of used oils and hazardous wastes. However, EPA understands that some used oils (e.g., metalworking oils with chlorinated additives) may exceed the 1,000 ppm total halogen limit without having been mixed with hazardous waste. In these cases, the generator can rebut the presumption of mixing by documenting the source of the halogens and the used oil is subject to the part 279 management standards and is not subject to the subtitle C management system. However, even if the presumption of mixing is rebutted, if the total halogen level in the used oil exceeds 4,000 ppm, the used oil will not meet the used oil specification limit for total halogens. Therefore, if the used oil is to be burned for energy recovery, and the used oil will have to undergo further processing to meet the used oil fuel specification (to lower the total halogen level) or the used oil must be burned as off-specification used oil fuel (in which case the used oil fuel handlers must be in compliance with the requirements of part 279, subpart G). In cases where the used oil generator cannot rebut the presumption of mixing, the used oil generator must manage the mixture of used oil and hazardous waste as a hazardous waste (in compliance with all applicable Subtitle C management requirements).

In the 1991 Supplemental Notice, EPA proposed to apply the rebuttable presumption for used oil fuels to all used oils. Commenters favored extending the applicability of the rebuttable presumption for used oil fuels to all used oils that are recycled in any manner. EPA has decided to expand the presumption to cover all used oils (with two exceptions, discussed below) and has amended 40 CFR 261.3 to make the provision applicable to all used oils. Under this presumption, used oils containing more than 1000 ppm total halogens are presumed to have been mixed with a halogenated hazardous waste and therefore must be managed as hazardous waste. Used oil handlers may rebut this presumption by demonstrating that the used oil does not contain hazardous waste. EPA is recommending the use of SW-846 method 8010 in rebutting the presumption of mixing.

In today's rule, EPA is removing the current requirements of 40 CFR part 266, subpart E and recodifying these requirements in the new part 279, as explained later in this preamble. In the case of the rebuttable presumption, EPA is reinstating the rebuttable presumption as part of the definition of hazardous waste at 40 CFR 261.3. The Agency is amending the definition of hazardous waste in this manner to clarify that the rebuttable presumption will now apply to all used oils and that all used oils that contain greater than 1,000 ppm halogens must be managed as a hazardous waste, unless the presumption can be rebutted.

EPA solicited comments on the possible elimination of a distinction between a 1,000 ppm halogen limit for rebuttable presumption of mixing and the 4,000 ppm level for total halogens in specification fuel. EPA received favorable comments from the public. EPA, however, has decided not to address this issue in today's rulemaking. The management standards established today cover basic management practices and establish 1,000 ppm level for the rebuttable presumption of mixing for all used oils. The 4,000 ppm total halogen limit for specification fuel remains unchanged for now.

Today, EPA is amending the rebuttable presumption of mixing to conditionally exempt two types of used oils from the requirement to document the rebuttal. EPA is providing a conditional exemption for both used metalworking oils containing chlorinated paraffins and used compressor oils containing CFCs.

1. Metalworking oils

EPA is providing a conditional exemption from the rebuttable presumption of mixing for used metalworking oils/fluids containing chlorinated paraffins, on the condition that these oils/fluids are processed through a tolling agreement to reclaim the metalworking oils/fluids. Many metalworking oils/fluids contain greater than 1,000 ppm total halogens, not because they are mixed with chlorinated hazardous wastes, but due to the presence of chlorinated paraffins in the oils/fluids. Today's amendment to the rebuttable presumption is partially a clarification, because used metalworking oils that are not mixed with hazardous waste (but do contain greater than 1,000 ppm halogens) could have been the subject of a successful rebuttal. This exemption will relieve generators of such oils/fluids of the burden and responsibility of documenting the source of the halogens when the generator has entered into a tolling agreement to have metalworking oils/fluids recycled. Generators, as well as other handlers, of metalworking fluids/oils who have not entered into a tolling agreement to provide for the recycling of the oils/fluids remain subject to the rebuttable presumption and will have to continue to document that the oils/fluids are not mixed with chlorinated hazardous wastes. The Agency is providing and codifying this amendment for generators and processors/re-refiners with tolling agreements because the Agency believes that such private arrangements restrict the handling of the oils/fluids and provide for a mutual interest in preventing any potential contamination of the oils/fluids to assure that the oils/fluids can be recycled (*i.e.*, adding

solvents to metalworking oils would reduce the value of the used oil as a metalworking oil—adding solvents may not reduce the value of the used oil if it is used as a fuel, but it is possible that it may be deemed as a mixture of used oil and hazardous waste if significant quantities of F001 and F002-halogenated constituents are detected).

2. Compressor Oils From Refrigeration Units Containing CFCs

EPA also is amending the rebuttable presumption to exempt CFC-contaminated used oils generated and removed from refrigeration units and air conditioning equipment, on the condition that these used oils are not mixed with other wastes, that the used oils containing CFCs are subjected to CFC recycling and/or reclamation for further use, and that these used oils are not mixed with used oils from other sources. The remaining used oil must be recycled appropriately in compliance with today's standards. The presence of CFCs in compressor oils removed from refrigerant units will cause the use oils to exhibit a halogen level greater than 1,000 ppm, even after the majority of the CFCs are removed and/or recycled. This exemption, like the exemption provided for metalworking oils, will relieve generators of used compressor oils of the burden and responsibility of documenting the source of the halogens. Generators and other handlers of CFC-contaminated compressor oils must keep the used oils that are contaminated with CFCs separate from other used oils that are not exempt from the rebuttable presumption, since other used oils may be mixed with chlorinated hazardous wastes. It is important to note that although the rebuttable presumption does not apply to used compressor oils containing CFCs or used metalworking oils, these used oils remain subject to appropriate part 279 standards. For example, used oils must contain less than 4,000 ppm total halogens to be considered specification used oil fuels.

Used compressor oils containing residual levels of CFCs after the CFC recycling/reclamation and used metalworking oils are subject to the specification limits for used oil fuels if these oils are destined for burning. EPA wants to discourage the burning of used oils with significantly elevated levels of halogens in space heaters or non-industrial furnaces or boilers. Pending further study, the Agency may restrict the on-site burning of metalworking and CFC-contaminated used oils sometime in the future. All burning of used oil containing high levels of halogens must occur in compliance with the RCRA regulations established for the burning of hazardous waste or used oil as applicable.

D. Summary of New Part 279

As mentioned above, today's action promulgates management standards for recycled used oil to meet the legislative mandate of the Used Oil Recycling Act of 1980. These standards are a combination of the 1985-proposed management standards and the alternative management standards proposed in the 1991 Supplemental Notice. The detailed discussion concerning applicable requirements is provided under individual categories of used oil handlers: Tables VI.1 to VI.7 give specific regulatory citations for the individual management standards contained in today's rule.

1. Applicability

a. *General.* As indicated in the 1991 Supplemental Notice, the used oil management standards promulgated in today's rule will be codified in a new part 279 of Title 40 of the Code of Federal Regulations. The regulations in part 279 apply to all used oils, regardless of whether or not they exhibit a hazardous waste characteristic. The management standards promulgated today apply to household-generated and do-it-yourself (DIY)-generated used oils only when these used oils are collected and aggregated. Such used oils may be collected and aggregated at individual privately-owned or company-owned service stations with DIY oil collection programs, auto centers or other state or local government-approved, community-based used oil collection centers.

Today's requirements cover all used oil handlers and all types of used oils. Table VI.1 summarizes the general standards. EPA believes that all used oils, once generated, must be stored properly and must enter the used oil recycling system. In addition, as discussed below, EPA presumes that all used oils are recyclable either as a fuel or a feedstock.

TABLE VI.1.—USED OIL

[General standards]

Requirement	New or existing	Regulatory citation
Recycling presumption	New	§ 279.10(a).
Mixtures of used oil with hazardous waste	Existing	§ 279.10(b).
Rebuttable presumption for used oil	Existing	§ 279.10(b)(1)(ii) and § 261.3(a)(2)(iv).
Exceptions from rebuttable presumption for CFC and metalworking oils.	New	§ 279.10(b)(1)(ii) (A) and (B) and § 261.3(a)(2)(iv) (A) and (B).
Mixtures of used oil with non-hazardous waste	Existing	§ 279.10(c).
Mixtures of used oil with products	New	§ 279.10(d).
Materials derived from used oil	New	§ 279.10(e).
Conditional exemption—wastewater	New	§ 279.10(f).
Used oil introduced into crude oil or natural gas pipelines	New	§ 279.10(g).
Used oil on vessels	New	§ 279.10(e)(3), § 279.10(h), and § 279.20(a)(2).
PCB contaminated used oils	New	§ 279.10(i).
Used oil specification	Existing	§ 279.11.
Surface impoundment/waste pile prohibition except for units operated under Part 264/265 requirements.	New	§ 279.12(a).
Prohibition on use as a dust suppressant	New	§ 279.12(b).
Prohibition on burning in other than certain units	Existing	279.12(c).

b. *Recycling presumption.* The management standards in part 279 apply to all used oils that can be recycled. EPA presumes that all used oils are recyclable and, therefore, all used oils must be managed in accordance with the management standards promulgated today. In the event a used oil handler disposes used oil on site or sends for disposal, the handler must comply with the applicable regulations (e.g., determine whether the used oil exhibits any characteristic of hazardous waste and if it does, must manage the used oil as a hazardous waste). This provision is

codified today as subpart I of part 279. See section VI. B. for additional discussion.

The commenters to the 1991 Supplemental Proposal overwhelmingly favored implementation of the recycling presumption. However, many commenters stated that the criteria provided for rebutting the recycling presumption (*e.g.*, water content, BTU value) would be difficult to comply with, and therefore EPA should not develop such criteria. In addition, commenters stated that all used oils are recyclable and the extent of recycling depends on the cost to generators. For example, if the used oil is actually a mixture of oil and water, then the cost of recycling the mixture would be higher than recycling used oil that is straight out of engines or from metalworking operations. Upon further evaluation of comments, the feasibility of applying these criteria for a rebuttal, and the analytical requirements accompanying the proposed criteria, the Agency decided against finalizing the specific criteria for rebutting the presumption of recycling. The Agency believes that recycling is a more viable alternative than disposing of used oil as a characteristic waste. Therefore, used oil handlers will react to market conditions, thus selecting recycling over disposal. The Agency therefore has decided to rely on the decision to dispose used oil as a *de facto* criterion for rebuttal of the recycling presumption promulgated today.

c. *Mixtures.* The following section discusses management of mixtures of used oil and used oil-contaminated wastes. Used oils mixed with other solid wastes or with other materials (*e.g.*, virgin fuel oil) are regulated as used oil under the part 279 standards.

i. Mixtures of used oil and hazardous waste. Used oils that are mixed with listed hazardous wastes are subject to regulation as hazardous waste under 40 CFR parts 262 through 268, 268, 270, and 124. Used oils that are mixed with characteristic hazardous wastes may be managed as used oils under part 279 if the resultant mixture does not exhibit a characteristic. In addition, used oils that exhibit a hazardous waste characteristic (*e.g.* ignitability or toxicity) by their own nature and are not mixed with a hazardous waste may be handled in accordance with today's part 279 used oil management standards and are exempt from (i.e., not subject to) additional Subtitle C requirements, if they are recycled.[6]

Mixtures of used oil and hazardous wastes generated by conditionally exempt small quantity generators regulated under 40 CFR 261.5 are subject to regulation as used oil. The hazardous waste from a conditionally exempt generator when mixed with used oil generated by this entity, may cause the used oil to exceed the halogen limit under the rebuttable presumption of mixing. This mixing has been permissible since 1985 under 40 CFR 280.40(d)(2) when used oil mixed with hazardous waste generated by a small quantity hazardous waste generator is burned for energy recovery. The existing requirement is recodified at 40 CFR 279.10(b)(3) today.

ii. Mixtures of used oil and other solid wastes. EPA encourages the separation of used oils from used oil/solid waste mixtures and from used oil-contaminated materials prior to management of the mixture. Used oils separated from mixtures containing other solid wastes should be recycled in accordance with the standards promulgated today. Used oils that have been separated from mixtures with other materials or solid wastes are subject to the management standards of part 279. For example, used oils recovered from oil filters, industrial wipers and other absorbent materials, and used oils recovered from scrap metals are all subject to the part 279 used oil management standards when they are recycled. Commenters were in favor of requiring proper management of wipers and sorptive materials contaminated with used oil, as long as the used oil has been removed and no free-flowing oil remains associated with the solid waste mixture.

In the September 1991 Supplemental Notice, EPA proposed a one drop test for determining when there is no free-flowing used oil remaining in a mixture. The Agency has decided against using the one drop test, because EPA is unable to address the question of how to determine when one drop is formulated. Instead, the Agency decided to apply a free-flowing concept to mixtures of used oil and other solid wastes. The used oil from such mixtures, when subjected to mechanical pressure devices such as cloth wringers/squeezers or gravity draining, can easily be removed so that no free-flowing oil remains associated with the other solid waste(s). Therefore, EPA has decided to apply the concept of no free-flowing oil, rather than a one drop test. EPA encourages the handlers of used oil and other solid wastes to remove used oil to the extent possible such that there is no visible sign of free-flowing oil in the remaining solid waste. The storage and handling of the mixtures prior to the separation of the used oil must be in compliance with the management standards for recycled used oil promulgated today. If any used oil that is removed from a mixture cannot be recycled, the generator of the used oil must manage the used oil in accordance with the disposal requirements of part 279, subpart I. Materials from which used oils have been removed must be managed safely and in accordance with all applicable RCRA regulations upon removal of used oil.

iii. Mixture of ignitable solvents and used oil. In the 1991 Supplemental Notice, EPA requested comments on whether the Agency should allow burning of mixtures of used oil and characteristic waste (i.e., waste exhibiting characteristics of ignitability) such as mineral spirits as a used oil fuel. The commenters stated that the burning of such mixtures can be performed in compliance with the used oil fuel specification requirements. The commenters also pointed out that mineral spirits, petroleum distillates are used in place of halogenated solvents as cleaning agents, degreasing fluids or part-cleaning solvents in automotive and vehicle maintenance industry and metalworking operations. The mineral spirits, petroleum distillates are then mixed with used oil to eliminate the characteristic of ignitability and then sent off-site for recycling as a used oil fuel. Based on the available data, the Agency has concluded that the mixing to manage ignitable solvents appears to be acceptable, provided the characteristic of ignitability of the ignitable solvents is removed.

EPA believes that if the solvents are hazardous only because of ignitability, and are not listed in part 261, subpart D, and do not exhibit the toxicity characteristic, then mixing the solvents in with used oil should not affect the chemical constituents or other properties of used oil. The solvents in question (i.e., mineral spirits) are petroleum fractions, are typically used by the same businesses that generate used oil, and are managed in a manner similar to used oil, i.e., burning for energy recovery or distillation to recover the solvent. As such, efficient and sound management can include mixing with used oil by used oil generators, and management by used oil processors and re-refiners. If the mixture exhibits the characteristic of ignitability, however,

[6] The Agency is currently evaluating several options to change the hazardous waste identification program (see 57 FR 21450; May 20, 1992). Depending upon which option(s) the Agency promulgates for hazardous waste identification, the mixture rule at § 261.3 may be altered or abolished. Hence, the regulation of used oils that are mixed with hazardous wastes may change.

this can mean that the mixing has changed the nature of hazards involved in managing the used oil, and this mixture should remain subject to hazardous waste controls.

d. *Used oil fuels.* Since the final used oil burning and blending rule was published on November 29, 1985, used oils burned for energy recovery have been regulated under 40 CFR part 266, subpart E. Today's rule removes subpart E from part 266 and incorporates (with minor modifications) the existing management standards for used oil marketers and burners (including the used oil fuel specification) into part 279. Used oil burned for energy recovery is subject to regulation under subpart G of part 279, unless the used oil is mixed with hazardous waste. Mixtures of used oil and hazardous waste that are burned as fuel for energy recovery in an industrial boiler or furnace will continue to be subject to 40 CFR part 266, subpart H, the standards for hazardous waste burned in boilers and industrial furnaces.[9]

(Note: Used oils that are identified as hazardous wastes may be burned for energy recovery in compliance with part 279 instead of 40 CFR part 266, subpart H, provided the used oil fuel is hazardous solely because it exhibits a characteristic of hazardous waste by its own nature or was mixed with hazardous waste generated by a conditionally exempt small quantity generator regulated under 40 CFR 261.5.)

e. *SPCC Program.* Today's rule regulates the storage of used oils in aboveground tanks and containers. Used oils stored in underground storage tanks remain subject to the standards of 40 CFR part 280. Under section 311 of the Clean Water Act, EPA has promulgated regulations for the prevention of oil spills into navigable waterways. These rules are known as the Spill Prevention Control and Countermeasure (SPCC) regulations and are codified at 40 CFR part 112. The SPCC requirements apply to non-transportation-related facilities located in the proximity of navigable waters; they cover facilities with underground storage capacity over 42,000 gallons, aboveground storage capacity greater than 1,320 gallons, or single tank capacity of 660 gallons. The SPCC definition of oil is very broad and covers all petroleum and oil product-storing facilities handling waste oil, fuel oil and "oil refuse;" therefore, persons and facilities storing used oil may already be subject to the SPCC regulations. The used oil facilities covered under the SPCC regulations will continue to be subject to those requirements independent of the used oil storage requirements promulgated today for the used oil industry participants.

The SPCC regulations are designed to address prevention of oil spills and the associated contamination or threat of contamination of surface water. However, the regulations do not specifically address the mitigation of discharges that contaminate soil and/or ground water without posing a threat of contamination of surface waters. In addition, the National Oil and Hazardous Substances Contingency Plan (NCP) at 40 CFR part 300 requires removal of oil forming a sheen on surface water but does not require cleanup of oil-contaminated areas that do not pose a threat of contamination of surface waters. EPA believes that approximately 50 percent of the used oil generator universe, most of the used oil transporters and processors and re-refiners, and more than half of the off-specification used oil burners are likely to be covered under the SPCC program. EPA also believes that less than 10 percent of the used oil industry participants are excluded from the SPCC program because they are not located in the vicinity of navigable waterways.[10] When today's used oil management standards become effective, the aboveground used oil storage and processing tanks and containers located at used oil transfer facilities owned or operated by used oil collectors/transporters, used oil processing and re-refining facilities, and off-specification used oil burner sites will be subjected to the RCRA section 3014 requirements. These used oil handlers also will be subject to the applicable SPCC regulations in 40 CFR part 112.

f. *Storage in Underground Tanks.* Used oil handlers who store used oil in underground storage tanks (USTs)[11] must comply with the standards in 40 CFR part 280. The technical standards for USTs, including USTs that are used to store used oils, were promulgated after the 1985 proposed used oil management standards. The Agency stated in the preamble to the UST final rule (53 FR 37112) that used oil, when stored in underground tanks, presents risks similar to other petroleum products stored in USTs. As a result, EPA determined that owners and operators of used oil USTs must comply with the standards promulgated for petroleum USTs.

g. Conditional Exemptions

i. Distillation Bottoms from Re-refining of Used Oil. As proposed in 1985, EPA is promulgating an exemption from the part 279 standards for distillation bottoms derived from used oil re-refining processes on the condition that the distillation bottoms are used as ingredients in asphalt paving and roofing materials. Commenters have indicated that the use of distillation bottoms to make asphalt paving materials is a common practice. Commenter-submitted data also indicate that distillation bottoms from re-refining processes do not exhibit the toxicity characteristic, and the Agency has no data to refute this claim. Therefore, EPA sees no reason to prohibit or restrict the use of re-refining distillation bottoms in the production of asphalt materials and is therefore excluding used oil residues used in this manner from the definition of hazardous waste.

ii. Inserting of used oil in crude oil or natural gas pipelines. Several commenters, in response to the 1985 proposed management standards, requested that EPA exempt upstream crude oil operations from the used oil management standards. These commenters believed that the practice of returning used oil to the refinery through the crude oil pipeline affords a high level of protection to human health and the environment, and additional requirements are unnecessary. Some commenters suggested that natural gas processing plants who may introduce used oil in the natural gas process stream should be exempted as well.

In response to these comments, EPA agrees that once introduced to a pipeline at crude oil or natural gas processing facilities, the possibility of releases to the environment is not greater for used oil than for crude oil and, therefore, is providing an exemption from the management standards for used oils that are placed directly into a crude oil pipeline. Similar exemption is provided to the owners/operators of natural gas

[9] Used oil that is mixed with hazardous wastes and is incinerated (*i.e.*), burning does *not* include energy recovery) must be incinerated in units that are in compliance with subpart O of 40 CFR parts 264/265. Any used oil that is incinerated in units regulated under parts 264/265, subpart O, must be managed in accordance with all applicable part 279 requirements prior to its incineration.

[10] See the background document pertaining to how the costs and benefits of today's rule were derived for a further explanation of how many facilities are not subject to the SPCC requirements. The background document is available in the docket for today's rule.

[11] In 40 CFR 280.12, underground storage tank is defined as any one or combination of tanks that is used to contain an accumulation of regulated substances, and the volume of which (including the volume of underground pipes connected thereto) is ten percent of more beneath the surface of the ground.

processing plants may choose to introduce used oil generated on site into a natural gas pipeline. The exemption applies to such used oils after the used oils are placed into the pipeline. Prior to being placed into a crude oil pipeline, the used oils are subject to all applicable used oil management standards promulgated today as part of part 279, including all used oil storage requirements, because at that point, the used oil could be released through leaks or spills, as could any other used oil.

iii. Used oil/diesel fuel mixtures. Some used oil generators blend the used oils they generate from the diesel-powered vehicles they own or operate with diesel fuel for use in these vehicles. As EPA explained in the 1985 proposed rule (50 FR 49220), this blending should result in fuel that is very low in toxic contaminants. EPA also explained in 1985 that mixing of used oils with diesel fuel is often recommended by diesel engine manufacturers. In addition, data available to EPA suggest that used diesel engine crankcase oils are quite low in contaminants as generated. Since diesel fuel is itself typically low in toxic metals, a dilution ratio that assures a high concentration of diesel fuel to used diesel crankcase oils would seem to ensure the resultant blended fuel will meet the used oil fuel specification. EPA also believes that such blending is not done on a very frequent basis and the resultant blended fuel is kept on site for use in the generator's own vehicles. Therefore, EPA is exempting this activity from the processing and re-refining facility standards of part 279 for generators who engage in this practice on-site and use the resultant fuel only in their own vehicles. Such generators are, however, still subject to the generator standards of subpart C of part 279, prior to mixing the used oils with diesel fuel, and the resulting fuel must be managed in accordance with the used oil fuel specification regulations.

iv. de minimis wastewater mixtures. As proposed in 1985, the Agency has decided to exempt wastewaters contaminated with *de minimis* quantities of used oil from the part 279 requirements. These wastewaters are covered under the Clean Water Act regulations. The majority of commenters supported such an exemption. EPA is today finalizing the definition for *de minimis* quantities of used oil that was proposed in 1985: "small spills, leaks, or drippings from pumps, machinery, pipes, and other similar equipment during normal operations or when small amounts of oil are lost to the wastewater treatment system during washing or draining operations." As discussed above, used oils recovered from wastewaters, however, will be subjected to the part 279 used oil management standards and must be managed accordingly. In addition, if such wastewaters are discharged to a surface water, the wastewater must meet all applicable NPDES limits promulgated under section 402 of the Clean Water Act. Wastewaters discharged to POTWs must meet the applicable pretreatment standards established pursuant to section 307(b) of the Clean Water Act.

v. PCB-contaminated used oils. Used oils that are contaminated with PCBs and regulated under 40 CFR part 761 are not subject to the used oil management standards promulgated today as 40 CFR part 279. The Agency believes that the current requirements in part 761 for PCB-contaminated wastes adequately control the management and disposal of used oils containing PCBs.

vi. Used Oils sprayed onto coal. When used oils are sprayed onto coal to suppress dust during the transport of coal, the used oil/coal mixture destined for energy recovery is considered a used oil fuel and is regulated under part 279 subpart G. However, used oils that remain in containers (including railroad tank cars and trucks) after the removal of the coal must be managed in accordance with all applicable part 279 standards.

b. *CERCLA Liability Exemption and Its Applicability to Service Station Dealers.* Service Station Dealers (SSDs), as defined by section 101(37) of CERCLA, will become eligible for the exemption from CERCLA liability for recycled oil as a result of today's rule, provided that they meet the requirements of section 114(c) of CERCLA. The exemption is limited to generator liability under section 107(a)(3) of CERCLA and transporter liability under section 107(a)(4); it does not cover owner and operator liability under section 107(a)(1) and (2). The exemption applies to liability for injunctive relief under section 106(a) and for cost recovery under section 107. In order to qualify for the exemption, an SSD must meet the following requirement of sections 114(c) and 101(37): (1) The SSD must be in compliance with the used oil management standards that EPA is promulgating today, discussed in sections VI.D.2 and VI.D.3, respectively, of the preamble; (2) the used oil must not be mixed with any other hazardous substance; and (3) the SSD must accept "do-it-yourself" generated used oil for recycling. Further, the exemption applies only to "recycled oil" as defined in section 1004(37) of RCRA.

The used oil management standards, in particular, include corrective action requirements for used oil releases after the effective date of the rule (i.e., response to used oil releases). The SSD must comply with these and with other applicable requirements, i.e., the part 280 standards for underground storage tanks, and part 112 standards for aboveground containers and tanks, as appropriate. In addition, the SSD complying with the corrective action requirements for underground storage tanks used for used oil storage will become eligible for the exemption. The exemption is not available for the SSD's own facility.

SSDs becomes eligible to assert the exemption on the effective date of the used oil regulations under section 3014 of RCRA that include, among other provisions, a requirement to conduct corrective action to respond to any releases of recycled oil under subtitle C or subtitle I of such Act. (See CERCLA section 114(c)(4).)[18] Today's rules provide for corrective action by cross-referencing subtitle I for releases from underground tanks and the part 112 regulations for aboveground SPCC tanks. For containers and other aboveground tanks, today's rule establishes new requirements for responding to releases under RCRA, section 3014, a subtitle C authority. In non-authorized States, the rules become effective (insert date 6 months from publication). In authorized States, the rules will not become effective until the State adopts rules under its own authorities. Prior to State adoption, an SSD may be eligible for the exemption if it can demonstrate compliance with EPA's regulations. In both authorized and non-authorized states, after the rules take effect, EPA would generally not pursue an enforcement action against SSD for which the exemption potentially applies unless it has reason to believe that the SSD is not complying with the section 3014 regulations, or fails to meet any other conditions of CERCLA section 114(c) and 101(37). EPA will determine whether a CERCLA enforcement action is appropriate on a case-by-case basis. EPA's determination, of course, is not binding on other persons, including states, that might bring an action under CERCLA. In such cases, the SSD may have to show

[18] The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (Superfund) (Pub. L. 96-510), as amended by The Superfund Amendments and Reauthorization Act of 1986 (Pub. L. 99-499), December 1986, p. 71.

that it has complied with the used oil management standards and met the other conditions of section 114(c) and 101(37) through record or other means.

As mentioned above, EPA has determined today that SSDs must follow existing regulations promulgated under Subtitle I of RCRA to respond to releases of recycled oil from underground storage tanks (USTs). SSDs and other owners of underground tanks had to begin complying with these regulations in 1988. The exemption for SSDs, however, could not take effect until EPA determined that compliance with these regulations would satisfy section 114(c) of CERCLA. In authorized states, the states themselves must adopt regulations governing underground tanks. While EPA encourages the states to rely on the subtitle I rules, the states may adopt more stringent requirements. Hence, EPA believes that the standards for underground tanks do not "take effect" for the purpose of the section 114(c) exemption in an authorized state until that state adopts used oil management standards under its own authorities.

Finally, section 101(37)(C) of CERCLA provides that the President shall promulgate regulations further defining "service station dealer" pertaining to the "significant" percentage of gross revenues from motor vehicle fueling, servicing including lube and tune up, or repairing activities provided to the public on a commercial basis. The legislative history states, "To prevent the creation and use of 'service station dealerships' as a front for hazardous waste management firms or commercial generators of hazardous substances that want the benefit of this exemption from liability, a significant percentage of the business' gross revenue must be derived from the fueling, repairing, or servicing of motor vehicles. Business operations, such as large retail establishments or car and truck dealerships that have a legitimate, commercial automotive service component, are intended to be covered by this definition. However, a retail establishment that does not derive revenue from fueling, repairing, or servicing motor vehicles does not qualify under this definition. To the extent establishments that do not qualify under this definition produce large quantities of used oil, they are industrial generators and are to be treated like other generators."[13]

2. Standards for Used Oil Generators

a. *Applicability.* The standards for used oil generators have been promulgated as subpart C of part 279. Table VI.2 lists applicable requirements and provides regulatory citations. These standards apply to used oil generators as defined in subpart B of part 279. A used oil generator is any person, by site, whose act or process produces used oil or whose act first causes used oil to become subject to regulations. For example, generators include all persons and businesses who produce used oil through commercial or industrial operations and vehicle services, including government agencies, and/or persons and businesses who collect used oil from households and "do-it-yourself" oil changers. Household "do-it-yourselfer" used oil generators or private individuals who generate used oil through the maintenance of their personal vehicles are not subject to the used oil generators standards.

[13] H. Rep. No. 99-962, 99th Cong., 2nd Sess. (1986) at 228.

TABLE VI.2.—USED OIL

[Generator standards]

Requirement	New or existing	Regulatory citation
Used oil on vessels	New	§ 279.20(a)(2).
Mixtures of used oil and diesel fuel	New	§ 279.20(a)(3).
Farmers	New	§ 279.20(a)(4).
Generators who perform other management activities	New	§ 279.20(b).
Hazardous waste mixing	New	§ 279.21.
Type of storage units	New	§ 279.22(a).
Good condition above ground tanks and containers	New	§ 279.22(b).
Labeling of tanks and containers	New	§ 279.22(c).
Response to used oil releases from above ground storage units	New	§ 279.22(d).
On-site burning in space heaters	Existing	§ 279.23.
Off-site shipment	New	§ 279.24.
SPCC requirements, including spill prevention and control	Existing (applicable independently)	40 CFR part 112.
UST requirements, including corrective action and financial responsibility.	Existing (applicable independently)	40 CFR part 280.
Accumulation limit	NA	None.
Inspection requirements	NA	None.
Closure	NA	None.
Collection Centers:		
Do-it-yourselfer collection centers	New	§ 279.30.
Used oil collection centers	New	§ 279.31.
Used oil aggregation points	New	§ 279.32.

The Agency has decided to regulate all used oil generators under one set of minimum management standards. Today's rule does not exempt any class of generators based upon a generation rate. In the September 1991 Supplemental Notice, EPA proposed to eliminate the regulatory distinction between small quantity and large quantity used oil generators (the Agency had proposed such a distinction in the November 1985 proposed rulemaking). The majority of commenters who responded to the September 1991 Supplemental Notice on this issue supported the proposed elimination of the regulatory distinction for generators.

In the 1991 Supplemental Notice, while proposing to cover all used oil generators under the RCRA section 3014 management standards, EPA discussed the advantages of such an approach to the regulated community, regulating agencies, and do-it-yourself used oil generators. The major advantages that EPA envisions are as follows. Such an

approach minimizes complexity by placing all used oil generators under uniform regulatory requirements: it eliminates the need for measuring quantities of used oils collected and stored each month: it eliminates the concerns that generators could be bumped into a more stringent regulatory category if the collect DIY-generated used oils: and above all, it allows for a system whereby all used oil is collected, recycled, and managed in an environmentally sound manner, thus reducing hazards to human health and the environment. Another major advantage, as discussed earlier in section V.D.1.h., is that approximately 30,000 used oil generators who meet the CERCLA section 114(c) "service station" definition qualify for the liability exemption if they accept DIY-generated used oil and comply with the used oil management standards, including corrective action (*i.e.*, used oil spill response and clean up requirements).

EPA decided against providing a small quantity generator exemption for the following reasons:

- The generator standards established today are basic and minimal good housekeeping practices that include maintaining all tanks and containers in good condition, labeling tanks and containers, and cleaning up spills and releases of used oil. They are substantially less than those proposed in 1985 and 1991.
- Large generators who use tanks that exceed the capacity limits and other prerequisites established under the SPCC and UST programs are subject to the containment and corrective action requirements in those programs. These programs provide additional protection necessary at used oil generator sites appropriately beyond the basic standards contained in today's rule.
- The collection of DIY-generated used oil would be discouraged due to the inherent concern for generators of being bumped into a higher category (*e.g.*, if an exemption was set at 100 kg/mo, generators would be unwilling to accept DIY-generated used oils because of the concern that the additional quantities of used oil would require them to comply with the management standards).
- Generators may have to keep records of used oil generation activities to demonstrate that they qualify from an exemption. It is probable that some generators may dump used oil to show that they only generate a quantity of used oil that is less than the quantity limit for defining a small quantity used oil generator.
- An extensive education and outreach program would be necessary to explain the interface between the used oil generator exemption and the CERCLA liability exemption.
- Existing mismanagement practices at certain generator sites would continue, resulting in ongoing risks to human health and the environment.
- As discussed in Section X of this preamble, the costs of compliance are relatively small on a per facility basis, even though total costs to generators may be 39 to 66 percent of the total costs to the regulated community.

b. *Used oil generated on ships.* In the case of used oils generated by ships or vessels (as defined in 40 CFR 260.10), these used oils are not subject to the used oil management standards until the used oils are transported ashore. When used oils are removed from a ship or vessel and taken ashore, the owner or operator of the ship or vessel and the person or persons removing or accepting the used oil from the vessel are co-generators of the used oil and both parties are responsible for managing the used oil in accordance with the used oil generator standards in subpart C of part 279. The co-generators may decide which party will fulfill the requirements of subpart C. Bilge water that contains used oil but does not contain listed hazardous waste when brought ashore must be managed in compliance with the generator standards in today's rule prior to subjecting it to separation steps that use oil/water separators. Bilge water containing listed hazardous waste is subject to RCRA subtitle C regulations once brought ashore. EPA believes that large quantities of bilge water are not generally stored for an extended period but are processed soon after their arrival on the shore. After separation the used oil portion of the bilge water must be maintained in compliance with the used oil generator standards. The remaining wastewater separated from bilge water must be managed in accordance with the applicable RCRA regulations and any discharged is subject to applicable Clean Water Act regulations. (See §§ 279.10(e)(3) and 279.20(a)(2).)

c. *Management of Materials Contaminated with Used Oil.* As discussed above, used oil that is mixed with a hazardous waste must be managed as a hazardous waste in accordance with all applicable RCRA requirements. Persons who generate mixtures of used oil and other materials or solid wastes (*e.g.*, used oil filters, rags, sorptive minerals, sorbent materials, scrap metals) are subject to part 279. Used oil removed from mixtures must be managed in accordance with the requirements of part 279 and either sent off-site for recycling or reused on-site. If the used oil removed from the mixture cannot be recycled, the generator must comply with the requirements of subpart I of part 279 for disposal of the used oil. Mixture of used oil and solid waste (e.g., natural or synthetic sorbent materials) from which used oil can not be separated when burned for energy recovery is subject to used oil specification fuel requirements.

After separating used oils from other materials or solid wastes, the remaining material or solid waste must be managed in accordance with any and all applicable RCRA requirements. The generator must determine whether or not the materials that previously contained used oil exhibit a characteristic of hazardous waste (with the exception of non-terne-plated used oil filters: see 57 FR 21534), and if so, manage them in accordance with existing RCRA controls. If the material does not exhibit a hazardous characteristic (and is not mixed with a listed hazardous waste) then the material can be managed as a solid waste.

d. *On-Site Management of Used Oil.* As discussed above, generators who blend used oil with diesel fuel for use in their own vehicles need not manage the used oil/diesel fuel mixture in accordance with the generator requirements of part 279. EPA believes that used oil/diesel fuel mixtures should be stored properly to ensure against possible spills, fire, and explosion hazards. Prior to mixing with diesel fuel, these used oils are subject to the part 279 generator standards. Generators may use such a mixture in their own vehicles.

Used oil generators who dispose of used oil on-site must test the used oil or apply their knowledge to determine whether or not the used oil exhibits a hazardous waste characteristic. If the used oil exhibits a characteristic of hazardous waste, the used oil must be disposed in accordance with all applicable RCRA requirements. When disposing used oil that cannot be recycled, the generator must comply with subpart I of part 279, relating to proper management and disposal of used oils. Used oil generators processing used oil on site are subject to standards for used oil processors/re-refiners promulgated today.

e. *On-Site Storage.* Used oil generators are required to store used oil in tanks or containers and must maintain all tanks and containers in good operating condition. In maintaining all tanks and containers in good condition, generators must ensure that all tanks and containers are free of any visible spills or leaks, as well as structural damage or deterioration.

Generators storing used oil in aboveground tanks and containers must clearly label all tanks and containers with the term "used oil." Generators who store used oil in underground tanks must label all fill pipes with the words

"used oil." The labeling requirements are meant to assist generator employees in identifying all tanks and containers used to store used oil and to avoid unintentional mixing. In the 1985 proposed rule, EPA solicited comment on a requirement to label all used oil tanks and containers with the words "recycled oil." Commenters overwhelmingly responded that such a term would be confusing because tanks and containers are used to store used oil before it is recycled. Therefore, the majority of commenters favored labeling used oil storage units with the words "used oil."

Used oil generators who are covered under the Spill Prevention, Control, and Countermeasure (SPCC) program will continue to be subject to the requirements of 40 CFR part 112. Similarly, generators storing used oil in underground storage tanks (whether or not the used oil exhibits any characteristics of hazardous waste) must comply with the standards in 40 CFR part 280, which are independently applicable and enforceable. As discussed in the Supplemental Proposal, technical standards for underground storage tanks (USTs) have been promulgated since publication of the 1985 proposed rule. The Agency stated in the preamble to the UST final rule (53 FR 37112; September 23, 1988) that EPA believes that used oil, when stored in underground tanks, presents risks similar to other petroleum products stored in USTs. As a result, EPA determined that owners or operators of used oil USTs (including used oil generators) must comply with the tank upgrading, operation and maintenance, corrosion protection, corrective action, closure, and financial responsibility requirements promulgated under part 280 for other petroleum product USTs. The Agency believes that the Subtitle I standards are sufficient to protect human health and the environment from potential releases of used oil from USTs. In addition, commenters to the 1991 Supplemental Notice felt that subjecting underground storage of used oil to standards beyond those in part 280 was unnecessarily burdensome and duplicative.

Storage of used oil in lagoons, pits, or surface impoundments is prohibited, unless the generator is storing only wastewaters containing *de minimis* quantities of used oil, or unless the unit is in full compliance with 40 CFR part 264/265, subpart K. The Agency believes that such units do not provide adequate protection of human health and the environment against potential releases and damages. In fact, the Agency has documented numerous cases of environmental damage from the storage of used oil in these units (see Environmental Damage from Used Oil Mismanagement, Final Draft Report, U.S. EPA, August 30, 1991, which is available in the docket for today's rule).

f. *Response to Releases.* Whenever a release occurs to the environment from the aboveground storage tanks and containers, a used oil generator must respond in a timely manner by taking the following steps: (1) Stop the release, (2) contain the released used oil, (3) clean up and properly manage released used oil and materials used for cleaning up/containing the release, and (4) remove the tank or container from service, repair, or replace the tank or container before returning it to service.

This above requirement applies only when there is a release to the environment. Under this rule, this would not include releases within contained areas such as concrete floors or impervious containment areas, unless the releases go beyond the contained areas. EPA believes that used oil spills or leaks occurring at generator facilities in an area with a concrete floor inside a building (*e.g.*, in service bays, maintenance garages, metalworking and fabricating locations) are cleaned up upon discovery as a general operating practice using appropriate sorbent materials before the used oil reaches the environment. Such clean up operations prevent the potential contamination of unprotected soils in the vicinity of the storage and work areas. The facility owners or operators must make sure that adequate quantities of sorbent materials are available on site all the time and is used to contain spills or leaks occurring during the normal activities.

The response to release provision does not require clean up of past releases to the environment which occurred prior to the effective date of the used oil program within an authorized state in which a used oil facility is located. Releases of used oil from underground storage tanks are subject to the requirements of 40 CFR part 280, subpart F independently as applicable.

In addition to the provisions listed above for releases of used oil from aboveground tanks and containers, and in addition to the corrective action requirements for releases from USTs provided in 40 CFR part 280, subpart F, used oil generators are required, under CERCLA section 103, to report a release of hazardous substances to the environment when the release is equal to or in excess of the reportable quantity (RQ) for the particular substance. Used oils that are contaminated with CERCLA hazardous substances (*e.g.*, due to the presence of elevated levels of lead) contain CERCLA hazardous substances. Therefore, releases of such contaminants (*e.g.*, lead) into the environment in quantities greater than the reportable quantity must be reported to the National Response Center. The current RQs for contaminants are listed in 40 CFR 302.4. In addition, under 40 CFR part 110, any discharge of oil that violates applicable water quality standards or causes a film or sheen on water surface must be reported to the National Response Center.

g. *Off-site transport.* Used oil generators are required to ensure that all shipments of used oil in quantities greater than 55 gallons are transported off-site only by transporters who have an EPA identification number. Used oil generators may transport, in their own vehicles, up to 55 gallons of used oil, that is either generated on-site or collected from DIY used oil generators to a DIY used oil collection center, used oil collection center, or aggregation point (*e.g.*, one that is licensed or recognized by a state or municipal government to manage used oil or solid waste). A used oil generator is not required to obtain an EPA identification number for this off-site transportation activity. A generator may also self-transport up to 55 gallons of used oil, in the generators's own vehicle, to an aggregation point owned by the same generator without obtaining an EPA identification number. EPA selected 55 gallons as a cut off quantity because that is the size of one drum. Also, the Agency feels that any quantity of used oil less than 55 gallons cannot be economically collected and transported by a used oil transporter.

The DIY used oil collection centers, used oil collection centers, and aggregation points referred to above are recognized by EPA as separate and legitimate entities in the used oil management system. Definitions of these terms are provided in § 279.1 and all three types of facilities fall within the definition of used oil generator. A used oil collection center is any site or facility registered/licensed/permitted/recognized by a state/county/municipal government to collect used oil from regulated generators prior to its pickup by a used oil transporter with an identification number for offsite recycling. EPA believes that these facilities handle small quantities of used oil on an occasional basis and local government would monitor their operations and make sure that these

sites are operating per the local-government specified guidelines. Such used oil collection centers must use used oil transporters with EPA identification number when sending used oil for offsite recycling.

Used oil collection centers may accept used oils from DIY generators as well as regulated used oil generators (in quantities less than or equal to 55 gallons per shipment). EPA believes that used oil quantities of less than 55 gallons (*i.e.*, content less than a 55-gallon drum/container) are unlikely to be accepted by the used oil collectors/transporters for offsite shipment.

A used oil collection center accepting only do-it-yourself generated used oil for recycling also must comply with the generator standards of part 279, subpart C. These DIY collection centers may or may not be recognized by the State or county/local authorities to accept DIY oil. DIY collection centers are centers that are not authorized to accept used oil from regulated generators. They are generally operated by voluntary organizations or local authorities as convenient "drop off" places for consumers to bring in their crankcase oil for recycling or proper disposal, similar to other household generated hazardous waste (e.g., paint thinners, degreasing fluids, over cleaners, insect killers). These establishments may be temporary by nature (*e.g.*, parking lots, schools, government office buildings). DIY collection centers that are operated to encourage DIY recycling are not equipped to handle or collect large quantities of used oil brought in for a drop-off by non-DIY generators. These centers have few drums/containers to collect small quantities of used oil stored in a milk jug or oil can/bottle, that are brought in for recycling by individual households. An example of a DIY used oil collection center is a site run by a state or municipal program established to collect used oil from commercial and household generators, such as Project ROSE in Alabama. Unlike used oil transfer facilities, DIY collection centers handle small quantities of used oil generated by DIYers on an occasional basis and after collection send the DIY used oil for off-site management.

A used oil aggregation point is any site or facility where an individual generator aggregates and/or stores shipments of used oil generated at any of several generation sites owned by the same generator. Aggregation points also may accept DIY-generated used oil. The major distinction between collection centers and aggregation points is that aggregation points and the generation sites from which they collect used oil are under common ownership. EPA views aggregation points of used oil generators, DIY collection centers, and used oil collection centers as similar to on-site facilities of used oil generators and, therefore, is subjecting them to the generator standards in subpart C of part 279.

EPA believes that it is necessary to allow used oil generators to self-transport small quantities of used oil to off-site collection centers or aggregation points to encourage generators of small quantities of used oil, and generators who have several generation points, but generate very small quantities of used oil at one or a few of the generator's sites, to recycle their used oils. EPA believes that used oil aggregation points are convenient drop-off point for satellite generator sites operated under the common ownerships. Used oil management at these aggregation points must be in compliance with the used oil generators standards and used oil must be send for offsite recycling using a used oil transporter with an EPA identification number.

If generators of small quantities of used oil were required to offer these small quantities of used oil to a used oil transporter with an EPA ID number, the cost of employing the transporter may discourage the generator from recycling the used oil. In addition, some used oil transporters may only accept shipments of used oil above a certain quantity. Therefore, by providing this self-transporting provision, EPA believes that generators who generate small quantities of used oil in any one calendar month will be discouraged from storing used oil on-site for long periods of time, or from disposing of the used oil. In addition, EPA believes that the risk of spills from transporting such small amounts of used oil is relatively low, thus, specific tracking of such shipments is unnecessary to protect human health and the environment.

h. *Accumulation limit.* Although EPA proposed, both in 1985 and in 1991, to restrict the accumulation of used oils stored by used oil generators, today's rule does not contain an accumulation limit for such used oil storage. EPA has decided not to impose an accumulation limit on generator storage since some amount of used oil is almost always stored at generator sites. Also, since used oil is a marketable commodity, there is an incentive for generators to send used oil off-site for recycling rather than storing it on-site for prolonged periods. EPA believes that used oil is not stored at the generator sites for a prolonged period since long-term storage requires purchasing of additional storage units for increasing storage capacity. This may result in additional costs to businesses or it may require that they comply with other federal or state regulations or local ordinance requirements.

i. *Tracking requirements.* In the 1991 Supplemental Notice, EPA proposed three options for the tracking of used oil from generators to used oil recycling facilities (*e.g.*, processors, re-refiners, burners) to ensure that all shipments of used oil reached recyclers of used oil. Commenters favored the concept of tracking shipments of used oil. Since the 1991 Notice, EPA has re-evaluated the proposed tracking requirements and the public comments. EPA also considered the costs associated with the tracking options for generators and the associated paperwork burden. In addition, EPA re-evaluated the recordkeeping requirements for used oil generators and assessed the information maintained by generators in normal operating records. Based on these analyses, EPA has determined that information maintained by used oil transporters will provide sufficient records of used oil transport activities without burdening used oil generators with additional tracking requirements. Information collected when accepting used oil shipments, such as quantities and type of used oil collected, the name and location of used oil generators, and analytical data for the rebuttable presumption, would be maintained by the used oil collectors/transporters as part of the recordkeeping requirements finalized today. Using this information maintained by used oil transporters, the Agency can track a used oil generator, if needed. Therefore, the Agency has eliminated the proposed tracking requirements for used oil generators. EPA believes that used oil generators maintain used oil collection and shipment records as standard business information.

j. *Inspection requirements.* In the 1985 and 1991 proposals, EPA proposed daily inspection requirements for used oil generators to assure the discovery of used oil spills and releases at used oil generator facilities. Commenters opposed the proposed daily inspection requirements. Most of these commenters claimed that when generators are loading/transferring used oils, they check for leaks and spills and take appropriate action at that time to clean up the released oil and contaminated materials. Transferring operations do not occur daily at generator sites. SPCC inspection and clean up requirements will be applicable independently.

and 1991 proposals. EPA considered deferring closure requirements for used oil generators, based on the lack of risk data supporting the need for closure requirements at generator sites. Since 1991, while reviewing the available Superfund site information and RCRA enforcement case data, the Agency has not located any damage information specific to generator sites. This leads the Agency to believe that damages at used oil generator sites are not a substantial concern (*i.e.*, have not resulted in environmental damage of a significant magnitude that it has resulted in the site being identified as the NPL site). Therefore, the Agency believes that closure requirements for used oil generator sites are unnecessary at this time, hence EPA is deferring such requirements.

l. *Exemption for Small Farmers.* In response to comments expressing concern over the expansion of RCRA requirements to small farmers generating used oils from heavy farming equipment, machinery, and vehicles, EPA is providing an exemption from the generator standards for small farming operations that generate on an average 25 gallons or less of used oil per month in a calendar year. EPA is providing this exemption to these generators because EPA believes that most of these generators, especially family farms, are similar to households, whose solid waste management is unregulated under RCRA. Family-run and other small farms are similar to households in a number of ways: They tend to have about the same number of vehicles owned for personal use; they tend to service and maintain their family-owned vehicles and heavy farming equipment on-site; and, indeed, small farms typically have residences on-site which generate used oil and other exempt household wastes. Also, unlike small industrial generators who usually are located within close proximity to used oil collection centers or who can easily arrange for used oils to enter the used oil recycling system via a used oil transporter, many family farms and other small farming collection centers. They may be using used oil on site in space heaters for heating purposes during the winter months and hence, do not accumulate more than 25 gallons of oil per month on average which can be provided to used oil transporters for recycling. Therefore, EPA believes that small farms who generate on an average 25 gallons or less per month of used oil in a calendar year should be exempted from regulation, as are households.

EPA has set the generation limit for the small farmer exemption at, on an average, 25 gallons or less of used oil per month in a calendar year to exempt only small farms that may have special difficulties in locating a used oil recycling center or in otherwise recycling the used oils they generate. The 25 gallon cutoff is roughly equivalent to the more general SQG exemption for used oil generators the Agency had considered in the 1985 and 1991 proposals and the 100 kg/month exemption for the conditionally exempt small quantity generators of hazardous waste. EPA believes that small farms will have few pieces of equipment and thus generate only small amounts of used oil. Of the approximately two million farms in the U.S., over 99 percent would be exempt under this provision. Finally, since small farms pose similar problems for the used oil management system as DIY from households, EPA believes it may be more appropriate to consider non-regulatory alternatives to encourage the collection of used oils from small farms, rather than the management standards promulgated today.

EPA's intention in providing this exemption is not to exempt large farming operations or businesses from today's standards. EPA believes that large farming operations do not face the same difficulties in recycling the used oil they generate and these operations are better able to provide the used oils they generate to the used oil recycling system. The Agency is aware of current activities undertaken by brokers who are involved in collecting used oil and business.

EPA encourages small farmers, as well as household used oil generators, to recycle their used oil, and when available, to participate in community collection programs or used oil collection facilities by cooperatives, brokers, etc. As is the case with used oils collected from households, used oil that is collected from these farms at used oil collection centers and DIY collection centers is subject to the part 279 standards when collected and accumulated at these collection centers.

Any use of used oil that can be construed as application to land (e.g., weed killing, spraying on plants) that is performed by exempt farming operations (or others) is discouraged since EPA is concerned with long term impacts of land application of used oil on the environment. Also, exempted farmers may be subject to state regulations that may limit such practices.

3. Standards for Used Oil Transporters

a. *Applicability.* A used oil collector transporter is any person or business who collects used oil from more than one generator or transporter or a generator who transports shipments of more than 55 gallons of used oil and transports the used oil off-site to another party or establishment for recycling, disposal, or continued transport. Used oil generators who transport shipments of used oil in their own vehicles, in quantities of 55 gallons or less (*i.e.*, drum/container holding this quantity to used oil collection centers or aggregation points[14] are not within the definition of a used oil transporter. Household do-it-yourselfers who transport used oil to generators, collection centers, or aggregation points also are not included in the definition of a used oil transporter. Table VI.3 lists requirements for used oil transporters and provides the regulatory citations.

[14] Used oil collection centers and aggregation points are defined in Subpart A of Part 279.

TABLE VI.3.—USED OIL

[Transporter and transfer facility standards]

Requirement	New or existing	Regulatory citation
General requirements	New	§ 279.40(a) through (c).
Transporters who perform other management activities	New	§ 279.40(d).
Restriction on processing used oil	New	§ 279.41.
Notification and EPA identification number	Existing for transporters who are marketers; new for others	§ 279.42.
Used oil deliveries	New	§ 279.43(a).
DOT requirements	Existing (applicable independently)	§ 279.43(b).

TABLE VI.3.—USED OIL—Continued

[Transporter and transfer facility standards]

Requirement	New or existing	Regulatory citation
Used oil discharges	New	§ 279.43(c)
Rebuttable presumption for used oil	Existing for transporters managing used oil fuel; new for others	§ 279.44(a), (b), and (c).
Exceptions from rebuttable presumption for CFC and metal-working oils	New	§ 279.44(c)(1) and (2)
Record retention for rebuttable presumption	New	§ 279.44(d)
Recordkeeping	New	§ 279.44(d)
Storage limit	New	§ 279.45(a)
Type of storage units	New	§ 279.45(b)
Good condition above ground tanks and containers	New	§ 279.45(c).
Secondary containment for containers and existing and new above ground tanks.	New	§ 279.45(d), (e) and (f)
Labelling of containers and tanks	New	§ 279.45(g).
Response to releases	New	§ 279.45(h)
Tracking—acceptance, deliveries, export, and recordkeeping	Existing for transporters who are marketers (invoices); new for others.	§ 279.46(a), (b), and (c).
Tracking—exports	New	§ 279.46(d).
Management of residues	New	§ 279.47
SPCC requirements, including spill prevention and control	Existing (applicable independently)	40 CFR part 112
UST requirements, including corrective action and financial responsibility.	Existing (applicable independently)	40 CFR part 280
Inspections	None	None.
Closure	None	None.

Owners and operators of used oil transfer facilities are also defined as used oil transporters. A used oil transfer facility is any transportation-related facility where used oil shipments are held for more than 24 hours during the course of normal transport prior to final transport to another transfer facility(ies), a used oil processor/re-refiner, or a used oil burner. Transfer facilities include such areas as loading docks, parking areas, and tank and container storage facilities. All used oil transporters are required to comply with the standards promulgated in subpart E of part 279. In addition, used oil transporters who also handle other hazardous waste must be in compliance with all applicable RCRA subtitle C regulations for hazardous waste transporters.

Used oil transporters who process used oils (including blending used oils with virgin oils) are subject to the standards for used oil processing and re-refining facilities in subpart F of today's rule.

Any person who transports used oil in a vehicle previously used to transport hazardous waste must ensure that the vehicle meets the definition of an empty container per 40 CFR 261.7 prior to transporting used oil. If the transporter does not comply with § 261.7, the used oil shipment is considered to be a hazardous waste and must be managed accordingly. The definition of "empty" requires that all non-acutely hazardous wastes be removed using common industry practices and that no more than 0.3 percent of the waste by weight remain in containers greater than 110 gallons and no more than 3 percent by weight remain in containers with a capacity of less than or equal to 110 gallons.

Transporters who import used oil into the United States and transporters who export used oil to points outside of the United States are subject to the used oil transporter requirements of subpart E of part 279 from the time the used oil enters the United States until the time the used oil exits the borders of the United States.

b. *Restrictions.* Used oil transporters are prohibited from blending used oils with virgin oil to meet the specification levels for used oil fuels in § 279.11. If an owner or operator of a transfer facility conducts any used oil processing, including blending to market the used oil as a fuel, the owner/operator must comply with the requirements provided for used oil processors and re-refiners in part 279, subpart F. EPA clarifies here that blending different used oils together to consolidate shipments is allowed by used oil transporters. The only blending activity that transporters are prohibited from undertaking is the blending of used oils with virgin oils to meet the fuel specifications. EPA has determined that "incidental processing" (*e.g.*, settling) that may occur at transporter sites when used oil is in storage does not pose any risks similar to those associated with processing of used oil. EPA considers "incidental processing" at transporter facilities during shipment consolidation or transfer not to be equivalent to blending or processing of used oil to meet the specification requirements for used oil fuels. Consolidation for a purpose of collecting a shipment full of used oil to transfer to a used oil processor/re-refiner does not necessarily require any treatment. When a used oil transporter markets a consolidation of different loads of used oil as an on-specification used oil fuel to non-industrial boilers and furnaces, the transporter must comply with the 1985 marketer requirements (*e.g.*, claiming that it meets the specification levels for used oil burned for energy recovery) recodified in part 279 today. A transporter may market used oil as off-specification fuel upon consolidation of different loads of used oil without making any specification claims and must comply with the 1985-established requirements for marketers of off-specification used oil that are recodified in part 279 today.

c. *Notification Requirements.* Any used oil transporter who has not previously complied with the notification requirements of RCRA section 3010 must do so and obtain an EPA identification number. An EPA identification number can be obtained by submitting EPA Form 8700-12 to the appropriate EPA Regional Administrator or State Director. An EPA identification number also can be obtained by submitting a letter to the EPA Regional Administrator requesting an EPA identification number and containing the following information: Company name, name of the owner of the transporter company, mailing address, telephone number and address of the point of contact, type of transport activity (*e.g.*, transporter only, transfer facility, or transporter and transfer facility), location of transfer facilities, and the name and phone number of the contact

at each transfer facility. Upon receipt of a completed notification form, EPA will provide the transporter with a unique 12-digit identification number, which is required to transport used oil. Transporters who have previously notified the Agency of their hazardous waste activities (or notified EPA under the 40 CFR part 266, subpart E used oil fuel regulations) and received an EPA identification number need not renotify.

d. *Delivery of Used Oil Shipments.* A used oil transporter is required to ensure that a shipment of used oil reaches an "authorized" used oil processing or re-refining facility, a used oil burning facility, or another used oil transporter. Entities deemed to be authorized are used oil processing and re-refining facilities subject to part 279, subpart F; used oil burning facilities in compliance with part 279, subpart G; hazardous waste management facilities with a permit or interim status; part 258 disposal facilities; or another used oil transporter who has an EPA identification number.

A transporter who markets used oil fuels must comply with the used oil marketer requirements of 40 CFR part 279, subpart H. In the event a transporter undertakes this activity, the transporter must comply with the recordkeeping (invoicing) requirements of § 279.74.

e. *Shipping requirements.* Transporters and collectors are required by existing U.S. Department of Transportation regulations to meet certain standards if the used oil is a hazardous material, including all applicable packaging, labeling, and placarding requirements in 49 CFR parts 173, 178, and 179. In addition, under today's rule, used oil transporters and collectors must clean up any used oil discharge that occurs during transportation or take such action as may be required or approved by Federal, state, or local officials so that the used oil discharge no longer presents a hazard to human health or the environment. The Agency believes that these provisions are necessary to reduce the potential impacts of used oil that could be released into the environment.

f. *Used oil storage at transfer facilities.* A used oil transfer facility is defined in 40 CFR 279.1 as "any transportation related facility [15] including loading docks, parking areas, storage areas, and other similar areas where shipments of used oil are held during the normal course of transportation for a period longer than 24 hours but not exceeding 35 days." A transfer facility is regarded as a site for the temporary storage of used oil that is picked up from one or more original generators and is on its way (1) to a processing or re-refining facility for further processing to produce used oil fuel, non-fuel recycled oil products, or lube oil feedstock; (2) to be reintroduced into refinery operations; or (3) to be burned as a used oil fuel. Storage of used oil at a transfer facility for a period exceeding 35 days will cause the transfer facility to become subject to the standards for used oil processors and re-refiners in subpart F of part 279.

The requirements established today cover all used oil transfer facilities owned/operated by used oil transporters regardless of their location and regardless of the size of any single tank at the facility or the total storage capacity of the facility. The SPCC (40 CFR part 112) and UST (40 CFR part 280) requirements are independently applicable to such facilities.

EPA believes that some regulatory controls are necessary to ensure proper management of used oils at used oil transfer facilities. Improper management at these facilities could allow for the release of used oil to the environment, cause spills during transfer and loading/unloading operations, or result in the inadvertent adulteration of used oil with hazardous waste while in storage or in transit. To prevent such mishaps, EPA is adopting "good housekeeping" standards for transfer facilities to ensure that units (containers and tanks) used to accumulate and/or store used oil are kept in good condition and to minimize potential releases of used oil to the environment.

Storage of used oil at a transfer facility must occur only in containers and aboveground or underground tanks. EPA believes that storage of used oil in units other than containers or tanks (*e.g.*, surface impoundments or lagoons) at transfer facilities does not occur since transfer facilities are typically temporary storage areas where used oil is stored for periods of very short duration. Furthermore, as discussed elsewhere in today's notice, EPA believes that storage of used oil in surface impoundment is generally a poor practice. Thus, EPA believes it is appropriate not to allow it at transfer facilities. EPA believes that transfer facilities are not likely to hold used oil in surface impoundments but in case, such use occurs only surface impoundments that are in compliance with parts 264/265 requirements can be used for used oil storage. Today's rule prohibits the use of an unlined surface impoundment for used oil storage.

All aboveground tanks [16] and containers at transfer facilities must be kept in good condition (*i.e.*, no visible signs of deterioration or leaks) and containers must be in compliance with all applicable DOT regulations. Aboveground tanks and containers and all fill pipes for underground used oil storage tanks must be clearly labeled with the words "used oil" to minimize accidental mixing. In addition, the storage areas around aboveground tanks and under the storage containers must be equipped with impervious floors and secondary containment structures (dikes and berms or retaining walls) capable of containing all potential spills and releases of used oil until the discovery and cleanup of spills and releases.[17] The floor under existing storage tanks must cover the entire area within the dike, berm or retaining wall except areas where portions of existing tanks meet the ground. EPA has determined that it is not necessary to require retrofitting of the floors of the existing tanks that are in good condition; it is not necessary to remove tanks temporarily to install an impervious floor directly beneath an aboveground tank that is in good condition. Any releases from the walls of existing tanks will be captured within the containment area and will be removed, while releases to the area outside of the containment area must be cleaned as required by today's release response requirements. EPA believes that used oil releases from tank overfills, spills, and loading/unloading activities are more likely than from the bottom of a tank or due to the loss of structural integrity of a tank.

However, the floor surrounding the area where the tank meets the ground must be impervious to oil. When installing new aboveground tanks, replacing damaged or deteriorated tanks, or reinstalling unfit tanks after restoring the structural integrity, an impervious floor under the aboveground tanks must be installed. This requirement is applicable to the aboveground tanks that are existing when the states adopt the part 279 used oil management standards and when the state rule containing the Federal used oil management standards takes effect. The

[15] For facilities subject to the SPCC regulation, the term "transportation-related" is defined in Appendix I of 40 CFR part 112.

[16] Aboveground tank is defined in § 279.1 as a tank used to store or process used oil that is not an underground tank as defined in part 280.

[17] For further discussion of the bases for the secondary containment requirement and the materials suitable for constructing impervious floors and dikes, berms, or retaining walls, see section VI.E.5. of today's preamble.

impervious floor under new storage tanks must cover the entire area within the containment structure. The effective date is the same as that discussed for existing tanks.

In the 1985 proposed rule and in the 1991 Supplemental Notice, EPA proposed secondary containment requirements for used oil storage tanks that are similar to the secondary containment provisions of 40 CFR part 264, subpart J. The Agency received a substantial number of public comments that disagreed with EPA's proposed secondary containment requirements. Most commenters disagreed with the proposed secondary containment provisions on the basis that the cost of full secondary containment for tanks and containers would be prohibitive for most used oil generators and transporters. The secondary containment requirements promulgated today for aboveground tanks and containers are substantially less burdensome, both technically and financially. Although these requirements will still impose some costs upon used oil transporters, the Agency believes that some level of secondary containment is necessary at transfer facilities to protect human health and the environment from potential used oil spills and releases. In fact, as documented by the Agency in the background documents supporting this final rule, past storage practices at used oil management facilities, including transfer facilities, have resulted in releases of used oil to the environment and, in some cases, substantial damages to human health and the environment.[18] EPA believes that the secondary containment requirements established today adequately protect against used oil releases to ground water and the existing SPCC requirements provide protection against spills reaching navigable waters. EPA has determined that secondary containment requirements similar to those in 40 CFR parts 264/265, subpart J are not necessary since the requirements promulgated today will effectively contain any spilled or released used oil within the containment structures. Also, the requirement that the entire containment structure be made of a material impervious to used oil will prevent the migration of used oil to soils, surface waters, and ground water.

Although the secondary containment requirements promulgated today are somewhat less burdensome than those required under 40 CFR parts 264/265, subpart J, any used oil transfer facility that is currently in compliance with the subpart J requirements (*e.g.*, the facility has double-walled tanks with double-walled or otherwise contained pipes) will be deemed in compliance with the secondary containment requirements promulgated today. EPA does want to clarify that all aboveground tanks or containers must be within a secondary containment structure that is impervious to used oil and capable of preventing the migration of used oil spills or releases to the environment.

An April 29, 1992, memorandum from EPA's Assistant Administrator for Solid Waste and Emergency Response [19] addresses aboveground storage tank technologies that may be used to provide secondary containment at SPCC-regulated facilities. The memorandum states that alternative aboveground storage tank systems that have capacities generally less than 12,000 gallons may provide protection of navigable waters substantially equivalent to that provided by the secondary containment systems listed in 40 CFR 112.7(c) of the SPCC regulation. An example of an alternative aboveground storage tank system that generally would provide substantially equivalent protection of navigable waters is a shop-fabricated double walled tank installed and operated with overfill prevention measures that include an overfill alarm, an automatic flow restrictor or flow shut-off, and constant monitoring of all product transfers including used oil. Used oil tanks meeting with the secondary containment equivalency discussed in the memorandum of April 29, 1992, are considered to be in compliance with the secondary containment requirements for aboveground tanks established in today's rule.

g. *Storage Limit.* Commenters to the 1985 proposed rule felt that the proposed 10-day limit on storage at transfer facilities was too short a period of time to accumulate and consolidate sufficient amounts of used oil for cost effective transportation. The Agency agrees with the commenters. In 1991, EPA proposed an alternative time limit (*e.g.*, 35 days) as a limit specifying the length of time of which used oil must be delivered to the final destination (*e.g.*, processors, re-refiners, or burners). Based on the favorable comments, EPA believes that at transfer facilities, used oil storage in normal course of operation typically occurs for less than 35 days. The Agency, therefore, has decided to allow used oil storage for no more than 35 days at transfer facilities. A transfer facility at which used oil is stored for more than 35 days must comply with the requirements finalized today for processing/re-refining facilities established under the 40 CFR part 279, subpart F. Also, EPA notes that the 35-day storage limit applies to the in-use storage tanks at transfer facilities and does not apply to the abandoned aboveground storage tanks used to store used oil, or to such tanks taken out of service. The requirements for the abandoned storage tanks are those currently in effect. For example, the owners/operators of transfer facilities must evaluate residues left in aboveground tanks taken out of service to make a hazardous waste determination (*i.e.*, whether the residues exhibit characteristics of toxicity, ignitability, corrosivity, or reactivity). If an aboveground tank at a transfer facility contains a hazardous waste, the tank will be managed in accordance with existing RCRA controls, including subpart J standards for tank closure.

Finally, the Agency concluded that a storage limit of 35 days at transfer facilities is protective of human health and the environment when applied in conjunction with the secondary containment requirements for aboveground storage containers and tanks promulgated today. EPA believes that storage at transfer facilities will be for a short duration when used oil is in transit between generators to processors, re-refiners, fuel oil dealers, and transfer facilities before reaching the ultimate recycler or burners. Any spills and leaks occurring during storage must be contained within the containment area, discovered, and cleaned up in a timely manner. If EPA, in the future, determines a need for a closure standard for transfer facilities to ensure that used oil contamination at a facility prior to the facility closing must be addressed then the Agency may take such a step.

Underground storage tanks (*i.e.*, those with more than 10% of the surface area of the tank(s) and associated pipes underground) used to store used oil at used oil transfer facilities remain subject to the requirements of 40 CFR part 280, independently. Also, many facilities remain subject to the Spill Prevention Control and Countermeasure requirements of part 112 of 40 CFR, independently.

[18] See "Summary Descriptions of Sixty-Three 'Used Oil' Superfund Sites" and "Summary Descriptions of Used Oil-Related Damages at RCRA-Permitted Facilities."

[19] See memorandum from Don R. Clay, Assistant Administrator, to EPA Regional Directors regarding "Use of Alternative Secondary Containment Measures at Facilities Regulated under the Oil Pollution Prevention Regulation (40 CFR part 112)," April 29, 1992.

h. *Response to releases.* Any spill or release of used oil from aboveground storage units (tanks and containers) at a used oil transfer facility must be stopped, contained, and cleaned up upon detection. Spilled used oils must be cleaned up and properly managed. If necessary, the unit must be removed from service, the contents removed, and the unit repaired prior to returning it to service. These requirements do not apply to past releases that have occurred at transfer facilities prior to the effective date of the used oil program within an authorized state in which a used oil facility is located. This requirement applies only when there is a release to the environment. Under this rule, this would not include releases within contained areas such as concrete floors or impervious containment areas, unless the releases go beyond the contained areas.

In the case of a release of used oil from an underground storage tank, the owner or operator of the used oil transfer facility must comply with the requirements of 40 CFR part 280, subparts E and F.

In addition to the provisions listed above for releases of used oil, and in addition to the corrective action requirements for releases from USTs provided in 40 CFR part 280, subpart F, used oil transporters are required, under CERCLA section 103, to report a release of hazardous substances to the environment when the release is equal to or in excess of the reportable quantity (RQ) for the particular substance. Used oils that are contaminated with CERCLA hazardous substances (*e.g.*, due to the presence of elevated levels of lead) are subject to CERCLA release reporting requirements. Therefore, releases of such contaminants into the environment in quantities greater than the reportable quantity must be reported to the National Response Center. The current RQs for CERCLA hazardous substances are listed in 40 CFR 302.4. In addition, under 40 CFR part 110, any discharge of oil that violates applicable water quality standards or causes a film or sheen on a water surface must be reported to the National Response Center.

i. *Rebuttable Presumption.* Since the rebuttable presumption now will apply to all used oils, EPA is requiring used oil transporters to determine the total halogen content as used oil shipments prior to accepting the shipments for transport. EPA believes that the majority of used oil transporters are already complying with this requirement to ensure that used oil has not been mixed with halogenated solvents, since the majority of used oil that is currently recycled is used as fuel for energy recovery and is therefore subject to 40 CFR part 266, subpart E, recodified today as 40 CFR part 279, subpart G.

If the halogen level exceeds 1,000 ppm, the used oil is presumed to be mixed with a halogenated hazardous waste, and must be managed as a hazardous waste, unless the transporter rebuts the presumption as described above. The transporter may accept such shipments of used oil as a hazardous waste transporter, but if the original generator of the hazardous waste cannot be identified, the transporter may have to assume hazardous waste generator responsibilities and comply with both the generator standards of 40 CFR part 262 as well as the hazardous waste transporter requirements of 40 CFR part 263.

j. *Recordkeeping.* Transporters are required to maintain records (for at least three years) documenting the acceptance and delivery of each used oil shipment. For the purposes of complying with the recordkeeping requirements in today's rule, used oil transporters need only enter the required information or documentation for each used oil shipment into a collection or operating log.

Used oil transporters must keep records for each used oil shipment accepted for transport from an original used oil generator or another transporter and maintain copies of each record for a period of at least three years. Records for each shipment accepted by transporters must include: (1) The date; (2) the name, address, and EPA identification number (if applicable) of the party who provided the used oil for shipment; (3) the quantity and type of used oil accepted; and (4) the dated signature of the party offering the shipment.

Used oil collectors and transporters must also keep and maintain for at least three years records of each shipment of used oil that is delivered to another transporter, used oil burner, fuel marketer, or used oil processor/re-refiner. Records for each delivery must include: (1) The date; (2) the name, EPA identification number, and address of the receiving facility or transporter; (3) the quantity of used oil delivered; and (4) the dated signature of a representative of the receiving facility.

EPA believes that these recordkeeping requirements are necessary to monitor the flow of used oil within the used oil management system and to discourage any adulteration of used oil by any used oil handler, by providing a paper trail documenting all parties who handled the used oil. EPA believes that the rebuttable presumption, as well as the requirement that used oil collectors and transporters keep records, will provide sufficient incentive to discourage adulteration of used oils. Past practices of used oil collectors and transporters storing mixtures of used oil and hazardous wastes have resulted in damages to the environment. Further discussion of such damages is provided in the background documents that accompany this rule.

It is EPA's understanding that most of the recordkeeping requirements established by today's rule are already being done as normal business and accounting practices by used oil transporters. As noted in the background information for the Regulatory Impact Analysis of today's rule, a used oil industry representative indicated that such records are maintained and the practice of keeping such records is not uncommon. The recordkeeping requirements promulgated today for used oil transporters are very similar to those proposed in the 1991 Supplemental Notice.

k. *Exports of used oil.* If a used oil transporter provides used oil for export or exports used oil from the United States, the transporter must maintain a record of the name and address of the receiving facility, the quantity of used oil exported to a foreign country, and the date the used oil is exported from the United States.

l. *Closure.* In 1985, EPA proposed closure requirements for used oil transfer facilities. Commenters opposed these requirements due to the fact that the requirements are overly burdensome. Since the secondary containment requirements promulgated today should mitigate the migration of almost all releases of used oil to the environment, and since today's requirements require used oil spills and releases to be cleaned up upon detection, EPA has decided that closure requirements for aboveground storage areas are not necessary and therefore the Agency is not promulgating closure requirements for used oil transfer facilities with aboveground storage units. EPA also notes that the majority of damages from improper storage of used oil have occurred at recycling facilities, rather than transfer facilities, which suggests differential standards are appropriate. (Note: Used oil transporters that store used oils in underground storage tanks are required under the Subtitle I standards to close all units used to store used oil prior to closing or abandoning the facility.)

m. *Other applicable provisions.* In addition to the requirements provided in subpart E, used oil transporters who recycle used oil either by blending, processing or re-refining, must comply with the requirements of subpart F. Used oil transporters who burn used oil on-site must comply with the requirements of subpart G of part 279, as well as the provisions of subpart E. If a used oil transporter markets used oil fuels, the transporter must comply with the requirements for used oil fuel marketers in subpart H of part 279. Used oil transporters who either dispose of used oil or use used oil as a road oiling agent must comply with subpart I of part 279.

In the 1991 Supplemental Notice the Agency proposed inspection, facility preparedness, and corrective action provisions. EPA has decided against such requirements because (a) the SPCC program-based inspection, preparedness, and emergency response provisions, (b) response to releases provision for transfer facilities, and (c) limits on the storage period are adequately protective against potential environmental damages associated with used oil storage. A used oil transporter who stores used oil for greater than 35 days is considered to be a used oil processor and must comply with the standards for used oil processing and re-refiners.

4. Standards for Used Oil Processing and Re-refining Facilities

As discussed in section VI.A of this preamble, the past used oil management practices at used oil processing facilities has resulted in environmental damage. This is evident from the identification of approximately 25 sites on the National Priority List where used oil was identified as one of the major constituent of concern. Similarly, EPA has discovered environmental damage associated with used oil management at RCRA facilities managing used oil in solid waste management units. Of the used oil facilities that the Agency has studied, 16 facilities has used oil spills; 15 facilities had leaking tanks and/or containers; 32 facilities recycled and disposed of used oil and wastes in surface impoundments and pits; 5 facilities placed used oil recycling sludges in waste piles directly on the ground; and one facility land-farmed used oil recycling sludges. Virtually all the surface impoundments or pits at these facilities were unlined. These instances lead EPA to believe that used oil processing/re-refining facilities pose the biggest problems due to used oil mismanagement, justifying the toughest controls (e.g. preparedness, secondary containment, closure, analysis plan, and tracking) established today.

a. *Applicability.* A used oil processing or re-refining facility is defined in § 279.1 as "a facility that processes used oil." Used oil processing means chemical or physical operations designed to produce from used oil, or to make used oil more amenable for the production of, fuel oils, lubricants, or other used oil-derived product. Processing includes, but is not limited to: Blending used oil with virgin petroleum products, blending used oils to meet the fuel specification, filtration, simple distillation, chemical or physical separation and re-refining. Used oil re-refining may include settling, filtering, catalytic conversion, fractional/vacuum distillation, hydrotreating, or polishing. The products of used oil processing or re-refining are likely to include specification fuel, reconstituted lubricating oils/fluids, distillate fuel, lube feedstock, asphaltic bottoms, and other non-fuel oil-derived product.

In addition to the requirements of part 279 subparts C and E, used oil generators and collectors/transporters are subject to all applicable processor and re-refiner requirements, if they process/re-refine used oil on-site. Used oil processing and re-refining facilities that also burn used oil fuel on-site for energy recovery must comply with the provisions in subpart G of part 279, except burning that occurs incidental to processing at used oil processing and re-refining facilities in compliance with § 279.50(b)(3)(ii). Table VI.4 lists requirements and provides the regulatory citations.

TABLE VI.4.—STANDARDS FOR USED OIL PROCESSORS AND RE-REFINERS

Requirement	New or existing	Regulatory citation
Processors who perform other management activities	New	§ 279.50(a).
Notification and EPA identification number	Existing for processors/re-refiners who are marketers; new for others.	§ 279.51.
Preparedness and prevention	New	§ 279.52(a).
Contingency plan and emergency procedures	New	§ 279.52(b).
Rebuttable presumption for used oil	Existing for processors/re-refiners managing used oil fuel	§ 279.53 (a), (b), and (c).
Exceptions from rebuttable presumption for CFC and metal-working oils.	New	§ 279.53(c) (1) and (2).
Type of management units	New	§ 279.54(a).
Good condition above ground tanks and containers	New	§ 279.54(b).
Secondary containment for containers and existing and new above ground tanks.	New	§ 279.54 (c), (d), and (e).
Labeling of containers and tanks	New	§ 279.54(f).
Response to releases	New	§ 279.54(g).
Closure for containers and above ground tanks	New	§ 279.54(h).
Analysis plan	New	§ 279.55.
Indicator parameters	N.A.	None.
Tracking—acceptance, deliveries, and recordkeeping	Existing for processors/re-refiners who are marketers (invoices); new for others.	§ 279.56.
Operating record	New	§ 279.57(a).
Biennial reporting	New	§ 279.57(b).
Off-site shipment	New	§ 279.58.
Management of residues	New	§ 279.59.
SPCC requirements, including spill prevention and control	Existing (applicable independently)	40 CFR Part 112.
UST requirements, including corrective action and financial responsibility.	Existing (applicable independently)	40 CFR Part 280.
Inspections	N.A.	None.

b. *Notification Requirements.* An owner or operator of a used oil processing/re-refining facility must notify the appropriate EPA Regional Administrator using EPA Form 8700–12, stating the location and general description of used oil management activities. In lieu of using the EPA Form 8700–12, owners and operators may notify the EPA Regional Administrator of their location and general description of used oil management activities in a letter. Upon receipt of this form, EPA will issue an EPA identification number to the facility. Owner/operators who have previously notified the Agency of their hazardous waste management or used oil activities and received an ID number need not renotify.

In addition to notifying EPA of any recycling activities and receiving an EPA identification number, an owner or operator of a used oil processing or re-refining facility that receives used oil from foreign sources must comply with all applicable RCRA requirements for the importation of solid and hazardous wastes.

c. *Preparedness and Prevention.* Owners or operators of used oil processing and re-refining facilities must operate and maintain the facility in a manner that will minimize the possibility of any fire, explosion, or unplanned sudden or non-sudden release. The existing Federal (*e.g.*, SPCC), state, and local (*e.g.*, fire ordinances) preparedness and prevention requirements are specific to certain aspects of facility operation. The existing RCRA requirements for preparedness and prevention, by contrast, pertain to the toxic or hazardous nature of the material or waste. The Agency, therefore, believes that RCRA requirements are necessary to ensure that used oil processing and re-refining facilities are maintained and operated to prevent possible fires, explosions, or releases of used oil to the environment. EPA believes that the preparedness and prevention requirements promulgated today are merely incremental to those currently in place and the existing compliance procedures can easily be expanded to comply with these additional requirements. Section 279.52(a) requires owners and operators to comply with the requirements for preparedness and prevention similar to those established for hazardous waste management facilities in 40 CFR part 265, subpart C. These requirements include maintenance and operation of the facility, required equipment, testing and maintenance of the equipment, access to communication or alarm system, required aisle space, and arrangements with local authorities.

The 1985 proposal required preparedness and prevention measures as part of the Permit-by-rule requirements for recycling facilities. The proposed requirements were the same as those established for hazardous waste management facilities. EPA believes that the majority of processing and re-refining facilities have preparedness and prevention measures in place as a part of good business and operational practices, therefore the Agency does not think such requirements will be overly burdensome (see background document on cost analysis that is in the docket for today's rule). In addition, local fire regulations, state regulations, and the Occupational Safety and Health Act require some level of preparedness and prevention measures.

d. *Contingency Plan and Emergency Procedures.* Section 279.52(b) requires owners or operators of used oil processing and re-refining facilities to prepare a contingency plan designed to minimize hazards in case of a sudden or non-sudden release, fire, explosion, or similar emergency. The variable composition of used oil (*e.g.*, the possibility of very low flash point oil) makes this more of a concern than for other types of oil facilities. The requirements for contingency plans and emergency procedures were taken from 40 CFR part 265, subpart D, because of the similarity to hazardous waste facility operations. These requirements include purpose and implementation of the contingency plan, content of the contingency plan, copies of the contingency plan, amending the contingency plan, emergency coordinator, and emergency procedures.

EPA believes that the majority of processing and re-refining facilities have contingency plan and emergency procedures in place as a part of good business and operational procedures. Therefore, EPA believes that such requirements are not overly burdensome. In addition, local fire regulations, state regulations, and the Occupational Safety and Health Act require development of contingency plans and emergency procedures.

e. *Storage Requirements.* Owners and operators of used oil processing and re-refining facilities must store all used oils either in tanks or containers, and all tanks and containers must be maintained in good condition (*i.e.*, no visible signs of leaks or structural damage or deterioration). Based on the comments received in 1985 and 1991, EPA believes that the practice of storing used oil in lagoons, ponds, pits or surface impoundments is not common and, in addition, that such storage is inherently unsafe and poses an undue risk to human health and the environment. Both in 1985 and 1991, EPA proposed to ban the use of lagoons, ponds, pits, or surface impoundments [illegible] treatment or storage due to the unreasonable risks posed to human health and the environment. Many commenters concurred with EPA on this point. Therefore, today's rule prohibits the storage of used oil in any surface impoundment, pond, pit, lagoon or similar land-based unit, unless the unit is kept in full compliance with the requirements in subpart K of part 264/265 or unless the unit contains only wastewaters with *de minimis* quantities of used oil as specified in 40 CFR 279.10(f).

In 1991 Supplemental Notice, EPA proposed inspection requirements for a discovery of used oil release or spill. Today, EPA is not finalizing the proposed inspection requirement because the preparedness requirement established today for used oil processing/re-refining facilities and the inspection provision of the SPCC program include inspection for used oil releases to the environment or oil spills, respectively.

The requirements established today cover all used oil processors/re-refiners regardless of their location and regardless of the size of any single tank the facility or the total storage capacity of the facility. The SPCC and UST requirements are independently applicable to processing or re-refining facilities.

The owner or operator of a used oil processing or re-refining facility must label all aboveground tanks and containers used to store used oil and all fill pipes used to transfer used oil to underground storage tanks with the words "used oil." EPA is requiring owners and operators to clearly label storage units used to store oil to prevent accidental mixing by ensuring that only used oil is placed in tanks reserved for the storage of used oil.

Owners and operators of used oil processing and re-refining facilities who store used oil in containers or aboveground tanks as defined in § 279.1 must equip the storage area surrounding the tanks or containers with a floor made from material(s) that is impervious to used oil. Owners and operators must also equip the storage area with secondary containment structures (dikes, berms, and/or retaining walls) that are made of a material(s) that is impervious to used oil and capable of

containing all potential spills and releases of used oil from the tanks or containers until the facility owner or operator can take measures to clean up the released used oil. The floor under existing storage tanks must cover the entire area within the containment structure, except where existing tanks meet the ground. EPA believes that requiring owner/operators with existing tanks to retrofit the containment structure would be financially burdensome and that there is little opportunity for contamination to occur under the small area where the tank touches the ground. For new tanks, the floor must cover the entire area within the containment structure.

In 1985, EPA reserved several sections of the proposed rule for the soon-to-be promulgated secondary containment requirements for hazardous waste storage tanks. Many commenters disagreed with EPA's proposal to require used oil recycling facilities to comply with the hazardous waste tank secondary containment provisions. In the 1991 Supplemental Notice, EPA stated that secondary containment standards similar to those required by the SPCC program may be adequately protective of human health and the environment and may be less burdensome to used oil processing and re-refining facilities. In the 1991 Supplemental Notice, the Agency specifically discussed the provisions for maintaining berms, dikes, or retaining walls around existing aboveground storage tanks. The Supplemental Notice included a diagram depicting a secondary containment structure that the Agency was considering requiring. The Agency believes that a secondary containment structure constructed around the entire storage area will provide adequate protection to the environment against spills and releases of used oil that may occur during used oil storage. Many commenters agreed with the Agency's assessment that this type of secondary containment is adequate for used oil storage areas. Some commenters urged the Agency to include secondary containment requirements in Phase I management standards, suggesting that storage-related spills and releases should be controlled.

Upon evaluation of the comments, and a further consideration of past storage practices at used oil processing and re-refining facilities that have either become Superfund sites or have had RCRA enforcement actions taken against them, EPA has concluded that there is a need to control releases of used oil during storage at processing and re-refining facilities. In fact, as documented by the Agency in the background documents supporting this final rule, past storage practices at used oil management facilities have resulted in releases of used oil to the environment, and in some cases, substantial damages to human health and the environment.[20]

Of the used oil facilities that the Agency has studied, 16 facilities had used oil spills; 15 facilities had leaking tanks and/or containers; 32 facilities recycled and disposed of used oil and wastes in surface impoundments and pits; 5 facilities placed used oil recycling sludges in waste piles directly on the ground; and 1 facility land-farmed used oil recycling sludges. Virtually all the surface impoundments or pits at these facilities were unlined.

Of the facilities that had spills, two were disposing solely used oil/oil recycling wastes, one was a storage facility only, and the remaining 13 were used oil processing and re-refining facilities. Of the facilities that had leaking tanks, two facilities were used oil storage facilities, one was a used oil disposal facility, and the remaining 12 were used oil recyclers. Of the facilities that disposed of used oil and wastes after recycling used oil in surface impoundments, 3 were also generators, 4 were solely disposal facilities, 1 was a storage facility, and the remaining 24 were processing and re-refining facilities. All five facilities that stored used oil recycling sludges in waste piles were processing and re-refining facilities. The facility that land-farmed used oil recycling sludges was a used oil recycling facility.

EPA has concluded that the containment of used oil releases is necessary, since contamination of soil, ground water, or surface water resources with used oil could reduce water quality and make water non-potable or could cause significant ecological harm. EPA believes that used oil handling and storage-related releases at used oil processing and re-refining facilities can be effectively controlled by the use of floors and containment structures made from an oil-impervious material.

As discussed above, the storage areas around aboveground tanks and under storage containers must be equipped with oil-impervious floors and secondary containment structures (dikes and berms or retaining walls) capable of containing all potential spills and releases of used oil until the discovery and clean-up of released used oil.[21] The floor under existing storage tanks must cover the entire area within the dike, berm or retaining wall, except areas where portions of existing tanks meet the ground. This requirement is applicable to the aboveground tanks that are existing when the states adopt the part 279 used oil management standards and the state rule containing the Federal used oil management standards takes effect. The impervious floor under new storage tanks must cover the entire area within the containment structure. The effective date is the same as that discussed for existing tanks.

EPA believes that the secondary containment requirements established today adequately protect against used oil releases to ground water and the existing SPCC requirements provide protection against spills reaching navigable waters. EPA has determined that secondary containment requirements similar to those in 40 CFR parts 264/265, subpart J are not necessary since the requirements promulgated today will effectively contain any spilled or released used oil within the containment structures. Also, the requirement that the entire containment structure be made of a material impervious to used oil will prevent the migration of used oil to soils, surface waters, and ground water.

Although the secondary containment requirements promulgated today are somewhat less burdensome than those required under 40 CFR parts 264/265 subpart J, any used oil processing/re-refining facility that is currently in compliance with the subpart J requirements (*e.g.*, the facility has double-walled tanks with double-walled or otherwise contained pipes) will be deemed in compliance with the secondary containment requirements promulgated today, and therefore need not install a new secondary containment system at the facility. EPA does want to clarify that all aboveground tanks and containers must be within a secondary containment structure that is impervious to used oil, and capable of preventing the migration of used oil spills or releases to the environment.

An April 29, 1992, memorandum from EPA's Assistant Administrator for Solid Waste and Emergency Response (discussed above) addresses

[20] See "Summary Descriptions of Sixty-Three 'Used Oil' Superfund Sites," and "Summary Descriptions of Used Oil-Related Damages at RCRA-Permitted Facilities."

[21] For further discussion of the basis for the secondary containment requirement and the materials suitable for constructing impervious floor and dikes, berms, or retaining walls, see section VI.E.3. of today's preamble.

aboveground storage tank technologies that may be used to provide secondary containment at SPCC-regulated facilities. The memorandum states that alternative aboveground storage tank systems that have capacities generally less than 12,000 gallons may provide protection of navigable waters substantially equivalent to that provided by the secondary containment systems listed in 40 CFR 112.79(c) of the SPCC regulation. An example of an alternative aboveground storage tank system that generally would provide substantially equivalent protection of navigable waters is a shop-fabricated doubled walled tank installed and operated with overfill prevention measures that include an overfill alarm, an automatic flow restrictor or flow shut-off, and constant monitoring of all product transfers including used oil. Used oil tanks meeting with the secondary containment equivalency discussed in the memorandum of April 29, 1992, are considered to be in compliance with the secondary containment requirements for aboveground tanks established in today's rule.

In the 1991 Supplemental Nouce, EPA requested comment on the types of material that could be used to construct oil-impervious structures including berms, dikes, retaining walls, and floors. EPA did not receive any comments specific to the request. Since publication of the 1991 *Notice*, the Agency has studied the permeability of some commonly used construction materials such as cement, clay, asphalt, plastic, and steel. EPA concluded that the selection of a suitable material for construction depends upon the size of the storage units and the site characteristics. As stated in the cost analysis section of this preamble, most of these materials are currently used for the purpose of containing releases under other regulatory programs. EPA believes that any of these materials can adequately prevent releases of used oil to the environment from storage units that are properly operated and maintained at used oil processing and re-refining facilities, therefore, the Agency feels there is no need to specify the type of oil-impervious construction material that must be used at all facilities. For the cost analysis that accompanies today's rule, EPA used a secondary containment scenario that includes a 3-inch asphalt floor with an annual application of sealant. EPA believes that a floor of this type is adequate to contain used oil releases since there should be minimal or no vehicular traffic around the storage tanks or within the bermed, diked, or walled area. When installing new tanks, however, facility owner/operator will have to take into considerations the size of the tank that the floor will be resting upon. Depending on the size of the floor's thickness, and the type of floor installed, the appropriate construction material may change.

f. *Applicable UST and SPCC requirements for used oil storage tanks.* If used oil is stored in underground tanks, the owner or operator of a used oil recycling facility must comply with the requirements of 40 CFR part 280, including the corrective action and closure requirements of part 280 subparts F and G. An underground storage tank used for storage of used oil that meets the underground storage tank definition under 40 CFR 280.12 must comply with part 280 requirements. As discussed in the 1991 Supplemental Notice, technical standards for underground storage tanks (USTs) have been promulgated since publication of the 1985 proposed rule. The Agency stated in the preamble to the UST final rule (53 FR 37112; September 23, 1988) that EPA believes tht used oil, when stored in underground tanks, presents risks similar to other petroleum products stored in USTs. As a result, EPA determined that used oil USTs must comply with the tank upgrading, operation and maintenance, corrosion protection, corrective action, closure, and financial responsibility requirements promulgated under part 280 for other petroleum product USTs. The Agency believes that the subtitle I standards are sufficient to protect human health and the environment from potential releases of used oil from USTs.

In addition to all of the storage requirements discussed above, used oil processing and re-refining facilities that meet the applicability criteria for the SPCC standards contained in 40 CFR part 112 also must comply with all applicable SPCC requirements, including maintaining containment and diversionary structures to control releases of oil from aboveground storage tanks.

g. *Response to releases.* Upon detection of any release or spill within the secondary containment area from transfer operations or from aboveground storage units (tanks and containers), owners or operators must take steps to stop and contain the release, to remove all released used oil from the containment area, and repair or replace the damaged tank or container. Release used oil must be removed from the area and must be managed (*i.e.*, treated, recycled, disposed) in accordance with the requirements of this part and any other applicable parts of this chapter. In addition, whenever there is a catastrophic release or spill of used oil and used oil migrates beyond the containment structure and reaches the environment, corrective measures must be taken to adequately protect human health and the environment from potential damages. This requirement does not apply to past releases of used oil that occurred prior to the effective date of the used oil program within an authorized state in which the facility is located. This above requirement applies only when there is a release to the environment. Under this rule, this would not include releases within contained areas such as concrete floors or impervious containment areas, unless the releases go beyond the contained areas.

In addition to the provisions listed above for releases of used oil and, in addition to the corrective action requirements for releases from USTs provided in 40 CFR part 280, subpart F, owners of used oil processing and re-refining facilities are required, under CERCLA section 103, to report a release of hazardous substances to the environment when the release is equal to or in excess of the reportable quantity (RQ) for the particular substance. Used oils that are contaminated with CERCLA hazardous substances (*e.g.*, due to the presence of elevated levels of lead) are subject to CERCLA release reporting requirements. Therefore, releases of used oil containing such contaminants into the environment in quantities greater than the reportable quantity must be reported to the National Response Center. The current RQs for CERCLA hazardous substances are listed in 40 CFR 302.4. In addition, under 40 CFR part 110, any discharge of oil that violates applicable water quality standards or clauses a film or sheen on a water surface must be reported to the National Response Center.

h. *Analysis Plan.* The owner or operator of a used oil processing or re-refining must establish analytical procedures to ensure a thorough knowledge of the contents of any used oil handled at the facility. These procedures are to be established through a written analysis plan describing the procedures to be used to comply with the analysis requirements, as required by § 279.55. Each facility must prepare an analysis plan which a facility will follow when performing sampling and analysis, keeping records, and when complying with the analytical requirements for documenting the use of oil fuel specification.

For the analyses described below, the owner or operator must specify in the facility's analysis plan the frequency of sampling and analysis. The owner or operator must perform sampling and analysis on a schedule that is adequate to meet all applicable requirements and assures that all used oils managed at the facility are handled safely and in compliance with all applicable used oil and Subtitle C regulations.

i. Rebuttable presumption and halogen determination. An owner or operator of a used oil processor/re-refiner facility must ensure that any used oil handled (*i.e.*, received from a used oil generator or a collector/transporter) at the facility is not mixed with hazardous wastes. Procedures should be established within the facility's written analysis plan (required in § 279.55) and the results of each procedure documented as part of the facility operating record, to demonstrate that the owner or operator will assure against such mixing and comply with the halogen determination requirements of § 279.53. The analysis plan should specify how, or with what methods, the owner or operator will analyze used oil to assure that the used oil is not mixed with hazardous wastes. As discussed above, EPA presumes that any used oil containing more than 1,000 ppm halogens has been mixed with chlorinated hazardous wastes. To rebut this presumption, the owner or operator must be able to document (or provide a copy of documentation from prior used oil handlers) at any time that the used oil was not mixed with hazardous waste (*e.g.*, by demonstrating that the presence of 1,000 ppm or more of total halogens is from some other source). The Agency believes that a facility-prepared analysis plan will identify at what time during the chain of custody, the facility owner/operator will rebut the presumption of mixing. In addition, EPA believes that an analysis plan will also indicate a procedure for handling a shipment of the adulterated used oil if received by an used oil processor/re-refiner facility especially when the given facility is not a co-management facility (*i.e.*, permitted to manage hazardous waste). A facility may rebut the presumption of mixing when accepting used oil for processing, re-refining, or blending; upon producing a specification fuel; prior to marketing it as off-specification fuel; or both when accepting used oil and shipping recycled products (*e.g.*, burner fuel, lube feedstock, or reclaimed lubricants) to the end users.

Under § 279.53, analyzing for total halogens is required to determine whether used oil has been mixed with chlorinated (halogenated) listed hazardous wastes. If the total halogen content exceeds 1,000 ppm, it is presumed that mixing has occurred per the rebuttable presumption codified today as § 261.3(a)(2)(v).

As discussed above, the rebuttable presumption does not apply to: (1) Used metalworking oils/fluids containing chlorinated paraffins on the condition that these used oil/fluids are recycled under a tolling arrangement to produce reclaimed metalworking oils/fluids; or (2) used compressor oils removed from refrigeration units and that are contaminated with chlorinated fluorocarbons (CFCs), on the condition that these used oils are destined for reclamation of the CFCs at an off-site CFC reclamation facility. The exemption applies to these two types of oils that are not mixed with used oil from other sources or other halogenated hazardous wastes.

EPA is concerned about the burning of used oils containing high levels of halogens in uncontrolled burners. Both metalworking oils and used compressor oils that contain a high level of halogenated constituents (>4,000 ppm) can not be burned safely in uncontrolled boilers and furnaces. If such used oils are to be burned for energy recovery, they must be burned at facilities that are in compliance with subpart G of part 279 or, if the used oil has been mixed with hazardous waste, with subpart H of part 266.

ii. Specification used oil fuel. Owners or operators who claim an exemption from regulation under 40 CFR 279.11 for specification used oil fuel must analyze for the specification used oil fuel parameters (*i.e.*, arsenic, cadmium, chromium, lead, total halogens, and flash point) and provide documentation of testing and sampling methods used and the frequency of sampling in the facility's analysis plan. If an owner or operator of a used oil processor/re-refiner facility markets specification used oil fuel, the owner or operator must document that the used oil meets the specification levels in the facility operating record, and must cross reference documentation that the used oil meets the specification to the burner or marketer.

iii. Indicator parameters. In 1985, EPA proposed that all owners and operators of used oil processing and re-refining facilities that also manage hazardous wastes at the same facility, test their used oils for the presence of indicator parameters. Indicator parameters are those constituents that were commonly present in the hazardous wastes handled at the facility, but not commonly found in used oils.

The majority of commenters who commented on the proposed analytical requirements stated that there is no need for the proposed indicator parameter testing at co-management facilities. The commenters responding to the indicator parameter testing requirement argued that co-management facilities are hazardous waste facilities operating under interim status or a full permit. Commenters stated that intentional mixing of used oils and hazardous wastes does not occur at co-management facilities due to the fact that mixing would reduce the marketability and recyclability of the used oil. Upon consideration of the public comments, the Agency has decided not to finalize the proposed requirements for indicator parameter testing.

For the analyses described above, the owner or operator of a used oil recycling facility must specify in the facility's analysis plan the frequency of sampling and analysis. The owner or operator must perform sampling and analysis on a schedule that is adequate to meet all applicable requirements and assures that all used oils managed at the facility are handled safely and in compliance with all applicable used oil management standards.

In the 1985 proposed management standards, EPA requested comment on the need to specify a specific schedule for sampling and analysis at the processing and re-refining facilities. Although EPA received several comments on the subject, the commenters did not agree either on the need to set a specific schedule or what the schedule should be, if EPA specified a schedule. It is apparent from the public comments received on the subject that it is probably not possible to develop a testing frequency schedule that would be appropriate for all types and sizes of used oil processing and re-refining facilities and take into account the many facility-specific variables that affect sampling and analysis frequencies. Therefore, under today's rule, EPA is not providing a specific schedule, but is requiring owners or operators of used oil processing and re-refining facilities to establish a tailored sampling and analysis schedule that will be appropriate for their particular facility and that meets the intent of the sampling and analysis requirements. This schedule must be documented in the facility's analysis plan.

Records of all analyses conducted at the facility to comply with the sampling and analysis requirements must be

maintained at the facility in the facility's operating record for a period of three years, as specified in § 279.57(a).

i. *Tracking of Used Oil.* Commenters favored the 1991-proposed tracking requirements for used oil processors/re-refiners. EPA believes that these facilities are the ultimate decision makers for the fate of used oil. Therefore, the Agency is finalizing the majority of tracking requirements proposed in 1991 which include keeping the records of each used oil shipment accepted for management and the records of each shipment of used oil delivered to the endusers. The requirements are specified in § 279.56. Furthermore, these records may take the form of a log, invoice, manifest, bill of lading, or other shipping documents. These records will provide the information necessary for preparing biennial reports for the facilities' used oil activities required in § 279.57(b) discussed below.

j. *Operating Record.* Owners and operators of used oil processing and re-refining facilities are required to maintain operating records included in § 279.57(a) of today's rule, until closure of the facility. The records include used oil analyses performed in accordance with the analysis plan required under § 279.55 and summary reports detailing all incidences that require implementation of the contingency plan specified at § 279.52(b).

k. *Reporting requirements.* Owners and operators of used oil processing and re-refining facilities are required to report to EPA or an authorized state agency in a letter, on a biennial basis, the following information: (1) The facility's EPA identification number, name and address; (2) the calendar year covered by the report; and (3) the quantities of each type of used oil accepted for recycling and the manner in which used oil is recycled at the site (if the facility recycles used oil in more than one manner, the quantities of used oil recycled should be reported for each recycling method (*e.g.*, burning, processing)).

Reports documenting the information listed above must be submitted to EPA, or the authorized state agency, by March 1 of each even numbered year and cover used oil recycling activities conducted during the previous year. Reports need only be in the form of a letter or spreadsheet and no formal reporting form will be developed.

The information identified above is similar to that listed on the Hazardous Waste Biennial Report Form (No. 8700-13B). The information requests were designed in this manner to assist owners and operators of used oil processor and re-refiner facilities in preparing the used oil biennial report. Many owners and operators are familiar with the hazardous waste biennial reporting form.

Commenters supported the biennial reporting requirements proposed for used oil recyclers in the 1991 Supplemental Notice. As noted in the Supplemental Notice, EPA believes that the information provided by the used oil processing and re-refining facilities will help the Agency when developing Phase II management standards that may include incentives for encouraging DIY-generated used oil recycling and/or more stringent management standards for a particular form of recycling (*e.g.*, used oil burning). EPA also believes that the information collected from processors and re-refiners will allow the Agency to monitor the flow and disposition of used oil and to allow the Agency to assess the relative amounts of used oil that are recycled in different manners.

The reporting requirements promulgated today will apply only to used oil processors and re-refiners and not to used oil burners or to transporters who directly market used oil fuels. The Agency believes that the information that is required of processors and re-refiners will indicate quantities of specification fuel and off-specification fuel produced. In case the Agency wants more specific information on burning activities, EPA may obtain additional information through a survey or by reviewing shipping records maintained by burners and used oil transporters.

l. *Closure.* Owners and operators must ensure that the units and areas used to store and recycle used oil are closed to the extent necessary to protect human health and the environment and in a manner that controls, minimizes, or eliminates post-closure escape of used oil and used oil residues to the ground, atmosphere, and water. At the time of closure, owners and operators who store used oil in aboveground tanks must empty the tanks, remove or decontaminate residues from the tank system, remove and decontaminate containment system components, contaminated media, and any structures and equipment contaminated with used oil released after the effective date of today's rule. Contaminated media, components, structures and equipment, and any used oil removed from the site must be managed as a hazardous waste, if the media, waste, or material meets the definition of hazardous waste, per 40 CFR 261.3(d).

If the facility owner or operator cannot successfully remove and decontaminate all contaminated media at the facility, then the owner or operator must close the tank system(s) and perform closure and post-closure care in accordance with the requirements of 40 CFR 265.310 that apply to landfills. EPA deferred the financial responsibility requirement for used oil processors and re-refiners in the 1985 proposal and 1991 supplemental notice. EPA believes that the closure steps necessary under today's rule can be implemented without the financial responsibility requirements for facility closure established under subpart H of Part 264/265. The closure requirement promulgated today only requires unit closure and removal of contaminated media in the immediate vicinity of the used oil storage/processing unit. EPA believes these costs are not likely to be excessive and can be borne by owners/operators without the need for financial assurance that is necessary for RCRA subtitle C hazardous waste treatment, storage, and disposal facilities. In addition, the Agency believes that many used oil processors/re-refiners would as a business practice routinely set aside funds for complying with the business insurance requirements. (See Cost and Economics Impact of 1992 Used Oil Management Standards, August 1992, available in the docket accompanying this rule.)

Owners and operators who store used oil in underground storage tanks must comply with the closure requirements of 40 CFR part 280, subpart G.

Owners and operators who store used oil in containers must remove all containers from the site at the time of closure. The owner or operator must also remove and decontaminate all residues, contaminated containment system components, contaminated soil, and any structures and equipment contaminated with used oil and manage them as hazardous waste if the media, waste, or material meets the definition of hazardous waste, per 40 CFR 261.3(d) or 261.4(b).

Based on information gathered from documentation of Superfund sites where used oil was identified as one of the major constituents of concern managed at the site, EPA is convinced that closure requirements for tanks and containers and for the area at existing facilities are important. EPA believes that the secondary containment requirements for containers and tanks established today will minimize the need for extensive closure in the future since the potential for a release of used oil to migrate into the environment will be reduced. The requirements of today's rule should ensure against damages that could result at abandoned sites by: (a)

controlling (containing) used oil spills or releases that may occur during the operation of used oil processing and re-refining facilities and (b) requiring the removal of contaminated soils in the vicinity of or beneath the aboveground used oil storage and processing units at closure.

m. *Other applicable requirements.* In addition to complying with the requirements of subpart F, owners and operators of used oil processing and re-refining facilities who also transport used oil off-site must comply with the requirements for used oil transporters in subpart E. Owners and operators of used oil processing and re-refining facilities who market used oil fuels must comply with the requirements of subpart H: owners and operators who burn used oil fuels must comply with the requirements of subpart G. Disposal of used oil must be performed in compliance with the requirements specified in part 279, subpart I. Similarly, management of used oil processing and re-refining residuals must be performed in compliance with the existing RCRA requirements. In addition, used oil generators who recycle used oil on-site in a manner other than burning for energy recovery must comply with the standards promulgated today for used oil processors and re-refiners.

5. Standards for Burners of Off-Specification Used Oil Fuel

a. *Applicability.* 40 CFR part 279, subpart G applies to owners and operators of facilities where off-specification used oil fuel is burned for energy recovery in any boiler or industrial furnace and hazardous waste incinerator subject to regulation under 40 CFR part 264 or 265, subpart O. The requirements are shown in Table VI.5. The requirements of 40 CFR part 279, subpart G are applicable to: (1) Owners and operators of facilities that burn used oil fuel for energy recovery where the fuel does not meet the specification levels for the constituents listed in § 279.11 (previously 40 CFR 266.41); (2) transporters or marketers who burn used oil fuels that do not meet the specification for used oil fuels (used oil transporters are also subject to 40 CFR part 279, subpart E and marketers are also subject to 40 CFR part 279 subpart H); and (3) used oil processing and re-refining facilities that also burn off-specification used oil fuels (used oil processing and re-refining facilities also are subject to 40 CFR part 279, subpart F). Used oil fuel, or used oil sent off-site to be burned for energy recovery, includes any fuel produced from used oil through processing, blending, or other treatment. The requirements of subpart G are merely the existing requirements of the former part 266, subpart E, with minor modifications. EPA summarizes these requirements below.

TABLE VI.5.—STANDARDS FOR BURNERS OF OFF-SPECIFICATION USED OIL

Requirement	New or Existing	Regulatory citation
Burners who perform other management activities.	New	§ 279.60(b)
Restrictions on burning.	Existing	§ 279.61
Notification and EPA identification number.	Existing	§ 279.62
Rebuttable presumption for used oil.	Existing	§ 279.63(a), (b), and (c)
Exceptions from rebuttable presumption for CFC and metalworking oils.	New	§ 279.63(c)(1) and (2)
Record retention for rebuttable presumption.	New	§ 279.63(d)
Type of storage units.	New	§ 279.64(a)
Condition of tanks and containers.	New	§ 279.64(b)
Secondary containment for containers and existing and new above ground tanks.	New	§ 279.64(c), (d) and (e)
Labelling of containers and tanks.	New	§ 279.64(f)
Responses to releases.	New	§ 279.64(g)
Tracking—acceptance and recordkeeping.	Existing	§ 279.65
Certification	Existing	§ 279.66
Management of residues.	New	§ 279.67
SPCC requirements, including spill prevention and control.	Existing (applicable independently).	40 CFR Part 112
UST requirements, including corrective action and financial responsibility.	Existing (applicable independently).	40 CFR Part 280
Inspections	N.A.	None
Closure	N.A.	None

The requirements under part 279, subpart G are not applicable to persons burning used oil fuel that meets the used oil fuel specifications of 40 CFR 279.11,[22] provided the marketer or burner of such fuel complies with the requirements of that section.

Used oils that are hazardous wastes may be burned for energy recovery in compliance with subpart G of part 279, instead of 40 CFR part 266, subpart H (standards for burning hazardous waste in boilers and industrial furnaces), provided the used oil fuel is hazardous solely because it exhibits a characteristic of hazardous waste by its own nature or was mixed with hazardous waste generated by a conditionally exempt small quantity generator regulated under 40 CFR 261.5.

Burners who treat off-specification fuel by processing, blending, or other treatment to meet the specification levels contained in 40 CFR 279.11, must comply with the processing and re-refining facility standards of 40 CFR part 279, subpart F and the used oil marketer standards of subpart H of part 279.

b. *Restrictions.* Used oil fuel that is off-specification (*i.e.*, used oil fuel exceeding any of the specifications of 40 CFR 279.11) may be burned only in industrial furnaces or boilers (defined in 40 CFR 260.10) that meet the following criteria: (1) Are located on the site as part of a manufacturing process (*e.g.*, cement kilns, asphalt plants) where materials are transformed into new products, including the component parts of products, by mechanical or chemical processes; (2) are utility boilers that generate electric power, steam, heated or cooled air, or other gases or fluids for sale for energy purposes; (3) are used oil-fired space heaters, provided that the burner complies with 40 CFR 279.23; or (4) are incinerators in compliance with parts 264/265, subpart O. (See § 279.61 for the specific restrictions.)

c. *On-site Burning in Space Heaters.* Used oil may be burned in a used oil-fired space heater, provided that the space heater burns only used oil that the owner or operator generates and/or used oil obtained from household DIY oil changers. The space heater must have a maximum capacity of not more than 0.5 million BTU per hour and the combustion gases from the burner unit must be vented to the ambient air.

d. *Notification Requirements.* Burners of off-specification used oil fuel must notify the appropriate EPA Regional Administrator using EPA Form 8700-12 or by submitting a letter, stating the location and general description of used oil burning activities, unless the owner or operator of the facility has previously notified the Agency of their used oil burning activities. Upon receipt of this notification, EPA will issue an EPA identification number to the burner. This requirement does not apply to: (1)

[22] The specification levels are: arsenic = 5 ppm, maximum; cadmium = 2 ppm, maximum; chromium = 10 ppm, maximum; lead = 100 ppm, maximum; flash point = 100°F, minimum; total halogens = 4,000 ppm maximum.

Burners who only burn specification used oil fuels; (2) burners of specification used oil fuel who receive the fuel from used oil marketers who have notified EPA of their used oil management activities and who have provided appropriate information concerning specification fuel claims; or (3) generators who burn used oil that is generated on site only in used oil-fired space heaters.

e. *Certification.* Before a burner may accept the first shipment of off-specification used oil fuel from a marketer, the burner must provide a one-time written notice certifying that the burner has notified EPA stating the location and general description of the burner's used oil management activities and that the burner will burn used oil only in an industrial furnace or boiler identified in 40 CFR 279.61(a).

f. *Storage Requirements.* Owners or operators of facilities that burn used oil for energy recovery must store all used oils either in tanks or containers. All aboveground tanks and containers must be maintained in good condition (*i.e.*, no visible signs of leaks or structural damage). EPA believes that the practice of storing used oil in unlined lagoons, ponds, pits or surface impoundments is not very common and it is inherently unsafe and poses an undue risk to human health and the environment.[23] Therefore, today's rule requires that all used oils be stored in aboveground tanks or containers or in underground storage tanks.

The owner or operator of a facility that burns used oil must label all aboveground tanks and containers used to store used oil and all fill pipes used to transfer used oil to underground storage tanks with the words "used oil." EPA is requiring owners and operators to clearly label storage units used to store used oil to assure against accidental mixing and ensure that only used oil is placed in tanks reserved for the storage of used oil.

Owners or operators of facilities that burn off-specification used oil and who store used oil in aboveground tanks or containers must equip the storage area surrounding the existing tanks or storage area holding containers with a floor and secondary containment structures (dikes, berms, or retaining walls) that are made of a material that is impervious to oil and that are capable of containing all potential spills and releases of used oil to soil, surface or containers until the facility owner or operator can take measures to clean up the release. The floor under existing storage tanks must cover the entire area within the containment structure, except where existing tank portions meet the ground. For new tanks, the floor must cover the entire area within the containment structure (for additional discussion, see section VI.5.f of this preamble).

EPA is requiring secondary containment for aboveground storage areas because the Agency has documented that past storage practices at used oil management facilities has resulted in releases of used oil to the environment. In the background documents supporting this final rule, EPA has documented damages that have occurred as a result of past storage practices at used oil management facilities.[24]

If used oil is stored in underground tanks, the owner or operator of a used oil burner facility must comply with the UST requirements of 40 CFR part 280. In addition, burner facilities that meet the applicability criteria for the SPCC standards in 40 CFR part 112 must comply with those provisions as well.

g. *Response to releases.* Owners and operators of used oil burning facilities who store used oil in aboveground tanks and containers must comply with the same release response requirements as those promulgated for used oil processing and re-refining facilities. Whenever there is a release or spill of used oil to the environment, the owner or operator must remove released used oil and contaminated media from the area, including used oils held in the containment area. Released used oils and contaminated media removed from the area must be managed (*i.e.*, treated, recycled, disposed) in accordance with the requirements of this part and any other applicable parts of this chapter. These requirements do not apply to past releases that occurred at the facility prior to the effective date of the used oil program within an authorized state in which the facility is located. This above requirement applies only when there is a release to the environment. Under this rule, this would not include releases within contained areas such as concrete floors or impervious containment area, unless the releases go beyond the contained area.

above for releases of used oil ... addition to the corrective action requirements for releases from USTs provided in 40 CFR part 280, subpart ... used oil burners of off-specification fu... are required, under CERCLA Section 103, to report a release of hazardous substances to the environment when ... release is equal to or in excess of t... reportable quantity (RQ) for the particular substance. Used oils that ... contaminated with CERCLA hazardo... substances (*e.g.*, due to the presence ... elevated levels of lead) are subject to these CERCLA release reporting requirements. Therefore, releases of used oil containing such contaminati... into the environment in quantities greater than the reportable quantity ... must be reported to the National Response Center. The current RQs fo... CERCLA hazardous substances are listed in 40 CFR 302.4. In addition, u... 40 CFR part 110, any discharge of oi... that violates applicable water quali... standards or causes a film or sheen on ... water surface must be reported to th... National Response Center.

h. *Used oil fuel analysis (halogens).* ... used oil burner must ensure that any used oil fuel handled at the burner's ... facility is not mixed with hazardous ... wastes. EPA will continue to presu... (per § 261.3(a)(2)(v), previously § 266.4... that any used oil containing more tha... 1,000 ppm halogens has been mixed ... chlorinated hazardous wastes. To r... this presumption, the owner or operat... must be able to document that the use... oil fuel was not mixed with haz... waste (*e.g.*, by demonstrating th... presence of 1,000 ppm or more of total halogens is from some other source).

Note: Used oil fuel processors or marketers may conduct analyses to do... that the used oil contains less than 1000 pp... halogens. Used oil burners may use this information in making their own determination and in rebutting the presumption of mixing.

i. *Recordkeeping and Reporting Requirements.* A burner who rece... an invoice from a used oil marketer under the requirements of Subpart H must maintain a copy of each invoice ... at least three years. Documentati... o... any used oil fuel analyses also m... t... maintained for at least three years. A burner must maintain a copy of each certification sent to a marketer f... at least three years from the date th... burner received the last shipment of specification used oil fuel from that marketer. A burner may use an acceptance/delivery log in lieu o... invoice.

[23] Any and all storage in of used oil in surface impoundments or other land-based units is strictly prohibited unless the owner or operator of the unit operates the unit in full compliance with 40 CFR part 264/265, subpart K.

[24] See "Summary Descriptions of Sixty-Three 'Used Oil' Superfund Sites," and "Summary Descriptions of Used Oil-Related Damages at RCRA-Permitted Facilities." Both of these documents are available in the docket for today's rule.

No reporting requirements are being promulgated for used oil burners of off-specification fuel. EPA believes that the Agency will be able to obtain burner-specific information by inspecting invoices kept by burners and the acceptance/delivery logs kept by collectors/transporters, processors, and re-refiners.

j. *Possible future regulations for used oil burners.* EPA received several comments suggesting that EPA revise the used oil fuel specification levels, particularly for lead. Such comments are beyond the scope of today's rule, since EPA did not propose any changes and EPA does not address these comments here. None the less, as noted in the 1991 Supplemental Proposal, EPA intends to conduct additional studies of used oil burning activities to address public concerns regarding potential lead emissions from used oil burners. After such studies are complete, EPA may either develop emissions standards for used oil burners or may revise the current specification limits for used oil fuels, if analysis suggests that additional controls are necessary to protect human health and environment.

EPA believes that the phase-down of lead in gasoline over the past 6 to 8 years may have resulted in a significant reduction of lead levels in used oils generated from gasoline-powered engines. The Agency's pre-1985 data show that used automotive engine oils that were sampled from storage tanks at processing and re-refining facilities averaged around 1,200 ppm lead. On the other hand, the Agency's data that were collected in 1988 and 1989 and the data submitted by the commenters in response to the 1991 Supplemental Proposal suggest that used oils from gasoline-powered engines that were sampled from storage tanks averaged approximately 80 ppm lead. These data suggest that the Lead Phase-down Program may have had a significant effect on reducing the lead in gasoline. Based on these data, EPA believes that a significant amount of used oil does not fail the used oil fuel specification limit for lead. However, if the Agency determines that the specification limit for lead should be lowered, greater quantities of used oil may then exceed the specification requirements.

k. *Closure Requirements.* In the 1985 and 1991 proposals, EPA considered deferring closure requirements for used oil burners, based on the lack of risk data supporting the need for closure requirements at these sites. Since 1991, while reviewing the available Superfund site information and RCRA enforcement case data, the Agency has not located substantive damage information specific to burners. This leads the Agency to believe that environmental damages at used oil burner sites does not appear to be a substantial concern (*i.e.*, have not resulted in environmental damage of a significant magnitude that it has resulted in the site being identified as the NPL site). Therefore, the Agency believes that closure requirements for used oil burners are unnecessary at this time, hence, EPA is deferring such requirements.

6. Standards for Used Oil Fuel Marketers

On November 29, 1985, EPA promulgated notification, analysis, and recordkeeping requirements for marketers of used oil fuels as part of the used oil final Phase I burning regulations (40 CFR 266.43). Today EPA is consolidating all of the regulations related to recycled used oil into one part of the CFR to alleviate confusion on the part of the regulated community and to provide consistency in the regulations. Therefore, the used oil fuel marketer requirements previously codified as 40 CFR 266.43 will now be codified as 40 CFR part 279, subpart H (Standards for Used Oil Fuel Marketers). EPA is changing the designated codification of the used oil fuel marketer requirements and reordering the appearance of these requirements without modification. Table VI.6 summarizes the requirements established for the used oil fuel marketers.

TABLE VI.6.—STANDARDS FOR MARKETERS OF USED OIL FUEL

Requirement	New or existing	Regulatory citation
Prohibitions	Existing	§ 279.71.
On-specification used oil-analysis	Existing	§ 279.72.
Notification and EPA identification number	Existing	§ 279.73.
Tracking—off-specification fuel	Existing (invoices)	§ 279.74(a).
Tracking—on-specification fuel	Existing	§ 279.74(b).
Recordkeeping	Existing	§ 279.74(c).
Certification	Existing	§ 279.75.

The used oil fuel marketer requirements are applicable to all used oil handlers that market used oil fuels. Fuel marketing is an activity that may be undertaken by used oil generators, transporters, processors, re-refiners, and used oil burners. Used oil handlers may certify that they are marketing off-specification used oil fuel or first claim that the used oil fuel they are marketing to non-industrial boilers and furnaces meets the specification limits established for used oil fuel. Under today's regulation, no party in the used oil industry can be simply a marketer. EPA believes that marketing is an activity that a used oil handler undertakes when selling used oils as a fuel. An entity that is selling off-specification used oil fuel can either be a generator or a transporter or in some cases a processor or re-refiner. Similarly, an entity selling specification used oil fuel may be a generator, transporter, processor, re-refiner, or a fuel oil dealer. A decision to market used oil as an off-specification fuel is solely an economic decision depending on the costs associated with marketing used oil as on-specification fuel (*i.e.*, used oil fuel meeting the specification limits). In the former case, used oil is shipped, as generated or consolidated without any processing, to an industrial boiler or furnace. In the later case, however, used oil is blended or processed to produce on-specification used oil fuel and is analyzed to document the claim that it meets the specification limits. Therefore, the marketing requirements of 40 CFR part 279, subpart H, in addition to all other applicable provisions of part 279, apply to all used oil marketers.

Under today's definition of marketers, it is logically impossible for a facility to be only a marketer of used oil fuel. EPA believes that a marketer of used oil fuel must either have generated, transported/stored at a transfer facility, and/or processed the used oil before marketing the used oil fuel. EPA received comments stating that persons who blend used oils from other sources should be regulated only as marketers. EPA disagrees. EPA believes that any person who blends different used oils

should be treated as processor (recycler) under today's rules. The blending and fuel production processes, and the associated storage of oils and fuels, have posed environmental risks as documented in the information available for the fuel oil marketers identified as NPL sites and from the RCRA enforcement actions being pursued by the Agency. Thus, EPA believes it is appropriate to regulate those who blend used oils to produce fuels under the processor/re-refiner standards established today. However, those facilities who consolidate shipments of used oil before sending the consolidated oil for recycling are classified as transfer facilities and are subject to the transporter standards.

7. Standards for Disposal of Used Oil and Use as a Dust Suppressant

a. *Disposal of Used Oil.* As explained above, EPA believes that most used oils are recyclable. Since there are cases where particular types or batches of used oil are not recyclable, EPA understands the need to provide for the safe and proper disposal of used oils in these limited circumstances. EPA is today promulgating disposal standards for non-recyclable used oils under 40 CFR part 279, subpart I given in Table VI.7.

TABLE VI.7.—STANDARDS FOR USE AS A DUST SUPPRESSANT AND DISPOSAL OF USED OIL

Requirement	New or existing	Regulatory citation
Disposal	New	§ 279.81
Use as a dust suppressant	New	§ 279.82

On May 20, 1992 (57 FR 21524), EPA promulgated a listing determination for used oils that are disposed. EPA determined that it was not necessary to list these used oils because those used oils that present an undue risk to human health and the environment typically and frequently fail the toxicity characteristic leaching procedure. Since such used oils are identified as a RCRA hazardous waste, EPA saw no need to list any used oils as hazardous waste when they are disposed.

Used oils that are identified as hazardous wastes and are not recyclable must be handled and disposed of as hazardous wastes in accordance with all applicable subtitle C regulations. Used oils that are hazardous wastes because they exhibit one or more characteristics of hazardous waste and are destined for disposal must be accompanied by a hazardous waste manifest when shipped off-site and must be transported to a permitted or interim status subtitle C disposal facility. In addition, all wastes that fail the extraction procedure toxicity (EP) test are currently prohibited from land disposal under 40 CFR part [illegible].

Used oils that are not mixed with listed hazardous wastes and do not exhibit a characteristic may be disposed of in an industrial solid waste landfill or a municipal solid waste landfill. Used oils that are disposed in municipal solid waste landfills after October 9, 1993, must be managed in accordance with the requirements of 40 CFR part 258. In addition, all nonhazardous used oils that cannot be recycled must be disposed of in accordance with all applicable Federal and State solid waste regulations.

b. *Use as a Dust Suppressant.* In the 1985 proposed used oil management standards, EPA proposed to list all used oils as hazardous waste. Since the Hazardous and Solid Waste Amendments banned the use of all hazardous wastes (those that are either listed or exhibit a hazardous waste characteristic other than ignitability) as dust suppressants, the proposed listing of used oils had the effect of banning the use of any used oil as a dust suppressant. Used oils are banned from use as dust suppressants under the statute only when mixed with a listed hazardous waste or when they exhibit the Toxicity Characteristic.

Although the Agency has determined that used oils need not be listed as hazardous wastes, EPA still believes that used oils should not be used for road oiling or as dust suppressants due to the tendency for used oils to contain hazardous wastes or be contaminated with hazardous or toxic constituents. There was overwhelming support from commenters for a ban on the use of used oil for road application and dust suppression. Direct application of used oil to the land allows for direct exposure of used oils and all potential contaminants to the environment. Therefore, in today's final rule, EPA is banning the use of all used oils for road or land application.

EPA recognizes that some states have established road oil control programs. A recent survey of states, however, showed that road oiling is not widely practiced, even in states that have such programs. Today's rule provides for states who wish to continue to allow road oiling under programs designed to control such activities to petition EPA to exempt their state from the national ban. This petition would usually be part of the state authorization package, but it may be a separate petition (*i.e.*, from an unauthorized state). The petition should show how the state will prevent the road application of used oil that is mixed with hazardous waste or that exhibits the toxicity characteristic. The [illegible] would generally demonstrate how the state will minimize environmental impacts of road oiling.

E. Response to Major Comments

1. Listing Used Oil as a Hazardous Waste

Commenters overwhelmingly supported the option not to list used oils as hazardous waste but to rely on management standards to control potential mismanagement of used oils. In fact, commenters to the 1991 Supplemental Notice overwhelmingly supported listing Option Three, no listing of used oils and reliance on management standards to control mismanagement of used oils. EPA has concluded that existing EPA regulations, and particularly the Toxicity Characteristic, adequately control the disposal of used oils that are hazardous wastes. The new Federal criteria for municipal solid waste landfills in part 258, as well as the stormwater regulations and TSCA requirements, adequately regulate the disposal of nonhazardous used oils.

Based on public comments and the recycling presumption discussed in the 1991 Supplemental Notice, EPA has determined that used oils that are recycled do not pose a substantial present or potential threat to human health and the environment when they are managed in accordance with the standards promulgated today from the time they are generated until they are recycled in addition to the existing requirements under other statutes or regulatory programs. In making a no-list determination, EPA considered the technical criteria for listing in 40 CFR 261.11, the fate and possible mismanagement of recycled used oils, and the impact of the management standards proposed in 1985 and 1991 on the recycling of used oils, and as discussed above, EPA has concluded that the management standards issued today control those problems that have occurred in used oil recycling. Therefore, listing used oil is not necessary to ensure adequate protection.

2. Mixtures

Commenters were nearly unanimous in support of EPA's proposal to exclude wipers and other materials contaminated with used oil from the proposed listing. Based on public

comments and commenter-submitted data, the Agency has decided not to list any used oils as hazardous wastes. Therefore, mixtures of used oils and other materials are not automatically hazardous wastes via the mixture rule. Mixtures of used oils and listed hazardous wastes will be regulated as hazardous wastes, whether they are recycled or not. Mixtures of used oil and characteristic hazardous waste that exhibit a hazardous waste characteristic also must be managed as a hazardous waste, whether they are recycled or not. However, mixtures of nonhazardous materials and used oils that exhibit a characteristic by their own nature (*i.e.*, the used oil is characteristically hazardous prior to mixing) or mixtures of used oil and characteristic hazardous waste that do not exhibit a characteristic are subject to the standards in part 279 if they are being recycled. Of course, if such a mixture cannot be recycled and the mixture exhibits a characteristic, it must be disposed in accordance with all applicable subtitle C regulations.

Mixtures of used oil and other materials generally will be regulated under part 279. However, as discussed above, EPA has exempted wastewaters contaminated with very small amounts of used oil, since such mixtures are not likely to pose a significant hazard. If mixtures of used oil and sorbent materials from which used oil can not be separated, however, are burned for energy recovery, the Agency believes that such recycling is acceptable. In addition, it is subjected to the existing used oil specification fuel requirements that are in effect since 1985 and recodified in part 279 today.

3. Controls on Disposal

Commenters supported EPA's proposal to develop guidelines for the disposal of non-hazardous used oil. The standards being promulgated today as part 279 apply to all used oils that are being recycled. Based upon the representations of commenters that most used oil is recyclable and is indeed recycled once it is collected, EPA has adopted a "recycling presumption," which means that the Agency presumes that all used oils will be recycled. A used oil handler who has used oils that cannot be recycled must dispose of the used oil properly. Hazardous used oils must be disposed in subtitle C facilities and new Federal Criteria for municipal solid waste landfills under part 258, which go into effect in October, 1993, will control nonhazardous used oils that are disposed. For these reasons, EPA believes that establishing guidelines for the disposal of used oils is unnecessary.

4. DIY-Generated Used Oils

Nearly all the commenters said that listing used oil as a hazardous waste would discourage the recycling of DIY-generated used oil. As discussed above, EPA is not listing any used oils as hazardous wastes. As a result, the major distincentive cited by commenters for used oil generators to continue accepting used oil from DIY generators has been removed. Nonetheless, in the September 1991 Supplemental Proposal, EPA put forth several non-regulatory incentive options for encouraging increased collection and recycling of DIY-generated used oils. EPA has not evaluated all of these incentive programs to date but will continue to assess the need for DIY incentives, and development of a non-regulatory scheme for DIY used oils may be part of a future used oil package.

5. Recycling Presumption Criteria

As discussed in VI.B of this preamble almost all commenters supported the concept of the recycling presumption, but few supported establishment of formal criteria of "nonrecyclability." Commenters were concerned that the criteria for rebutting the recycling presumption (*e.g.*, water content, BTU value, or any other measure) are not a meaningful measure of recyclability, since basically any used oil can be recycled and the degree of treatment prior to recycling is a function of the cost to the used oil generator. EPA has determined that it is not practical to set such criteria. Therefore, EPA is not establishing formal criteria on which to base a determination of nonrecyclability. Rather, a used oil handler who is not recycling used oils under part 279 must dispose of the used oil in compliance with applicable regulations. In other words, the used oil handler then must determine whether the used oil exhibits any characteristic of hazardous waste and manage the used oil accordingly.

6. Ban on Road Oiling

Commenters agreed that used oils are currently not widely used for road oiling and dust suppression. In fact, 41 out of 50 states prohibit the use of used oil for these purposes. The Agency is aware, however, that the other states allow this practice under certain permitting conditions and at least one commenter favored allowing road oiling under specified conditions. Today's final rule is promulgated pursuant to pre-HSWA authority, specifically, the Used Oil Recycling Act of 1980. Due to this fact, a Federal ban on road oiling will be effective only in unauthorized states on the effective date of this rule. The ban will not be effective in authorized states until the state modifies its program by adopting the ban provision and EPA approves the modification. Under the provisions being promulgated today, a state may submit a waiver to EPA to allow road oiling in that state in accordance with state laws and regulations.

7. CERCLA Liability

Most comments received in response to the 1991 Notice supported implementation of the liability exemption in CERCLA section 114(c). In addition, many commenters favored elimination of a small quantity generator category in the part 279 standards. EPA is not establishing any used oil generator cut-off based on generation rate. All used oil generators are subject to uniform standards in part 279. As a result, no change is necessary to trigger the applicability of the exemption from liability in CERCLA section 114(c). Any used oil generator who meets the statutory definition of a "service station dealer" is eligible for the liability exemption.

8. Storage

Most commenters agreed that minimum technical requirements (*e.g.*, tanks and containers kept in good condition, clean up of spills associated with used oil storage) are necessary for the storage of used oil under part 279. The regulations promulgated today require that used oil be stored in tanks and containers that are maintained in good condition, with no visible leaks or signs of deterioration. These minimum standards provide a certain level of control against leaks and releases from storage units. Additional controls, such as secondary containment for storage areas provide further assurance against migration of used oil and prevention against the contamination of soil, surface water, and ground water. EPA believes that at used oil facilities the use of continuously fed tanks for aboveground storage is limited and when such tanks are being used the owner/operator would install proper shut off valves and other controls to ensure that flow of material between the tanks is restricted in case of a tank rupture or other accidental releases.

9. Secondary Containment

Due to commenter's concerns regarding the technical and financial burden associated with the 40 CFR parts 264/265, subpart J secondary containment requirements, the Agency is not requiring full secondary

containment, such as double-walled tanks, for used oil storage. Used oil transporters, processing and re-refining facilities, and burner facilities must instead equip their tanks and containers with secondary containment consisting of dikes, berms, or retaining walls and a floor. All components of the containment system must be sufficiently impervious to oil to prevent any used oil released to the containment system from migrating out to the soil, ground water, or surface waters. EPA believes that the requirements promulgated today are less burdensome than the supart J requirements, yet they are sufficiently protective of human health and the environment. Although, subpart J standards are not required by today's rule, such requirements, such as a double-walled tank, however, would be sufficient for compliance with today's requirements.

10. Financial Responsibility

In the September 1991 Supplemental Notice, EPA proposed to defer the establishment of financial responsibility requirements for the clean up and closure of used oil generator sites and used oil facilities where used oil is stored in aboveground tanks and containers. Based on commenters' concerns regarding the costs and availability of financial assurance mechanisms, the Agency is not requiring used oil handlers to demonstrate financial responsibility for releases of used oil, except as provided under 40 CFR part 280 for underground storage tanks. EPA agrees with the commenters that a formal financial responsibility requirement similar to that in parts 264/265 is overly burdensome for the majority of used oil handlers. In addition, such a requirement should not be necessary because used oil generally is not stored for long periods of time due to its recyclability and marketability as a commodity. Thus, there is little likelihood of catastrophic spills that might require expensive clean up activities. EPA determined that financial responsibility requirements established in subpart H of part 264/265 is not necessary since unit closure requirement rather than a facility closure requirement is imposed today. The facilities managing used oil in land-based units, however, must be closed like RCRA subtitle C landfills, if the used oil contained in the units subject to closure exhibits characteristic of toxicity.

11. Permit-By-Rule

The majority of commenters believed that the permit-by-rule mechanism was unnecessary for implementation and enforcement of the used oil management system under part 279. EPA agrees with the commenters and has not established any permit-by-rule requirements for used oil facilities. The Agency believes that the recordkeeping requirements in part 279 will provide sufficient information for enforcement of the used oil management standards. The Agency decided against the permit-by-rule requirement because the requirements in today's rule are basic management practices that are largely self-implementing and do not require additional permit consideration of site-specific conditions.

12. Definition of Used Oil

In 1985 and in 1991, EPA proposed a definition of used oil that followed the statutory definition of used oil, but included used synthetic oils within the definition. Several commenters contended that synthetic oils should not be included because they are not in the statutory definition. The definition of used oil promulgated today, as the definition proposed in 1985 and 1991, is very similar to the existing definition in 40 CFR 266.40(b) and the statutory definition in section 1004(36) of RCRA. The only change is the inclusion of synthetic oils within the definition, including those derived from coal or shale. As discussed in the 1985 preamble, EPA believes that synthetic oils should be included in the definition of used oil due to the fact that these oils generally are used for the same purposes as petroleum-derived oils, are mixed and managed in the same manner after use, and present the same level of hazard as petroleum-based oils.

VII. Effective Date

Under RCRA section 3010(b), hazardous waste regulations are generally to become effective six months after final rule promulgation. EPA believes that the policy reasons for allowing facilities six months to come into compliance with new RCRA hazardous waste rules also apply to today's used oil management standards. Therefore, today's final rule for the used oil listing decision and used oil management standards will become effective on March 8, 1993. However, as explained below, in most states the rule will take affect in two to three years, as states adopt the new requirements.

VIII. State Authorization

A. Applicability in Authorized States

Under section 3006 of RCRA, EPA may authorize qualified states to administer and enforce the RCRA program for hazardous wastes within the State. (See 40 CFR part 271 for the standards and requirements for authorization.) Section 3006(h) of RCRA allows EPA to authorize state used oil management programs in the same manner as state hazardous waste programs, even if EPA does not identify or list used oil as a hazardous waste. In addition, EPA retains enforcement authority under sections 3008, 7003, and 3013 of RCRA following authorization of State used oil programs, although authorized States have primary enforcement authority. Sections 3008(d)(4), (d)(5), and (d)(7) of RCRA further clarify that EPA may assess criminal penalties for violations of used oil standards even if it does not identify used oil as a hazardous waste.

For rules written under RCRA provisions that predate the Hazardous and Solid Waste Amendments of 1984 ("HSWA"), States with final authorization administer their hazardous waste programs entirely in lieu of EPA's federal program. The Federal requirements no longer apply in the authorized State. When new, more stringent Federal requirements are promulgated or enacted, the State must develop equivalent authorities within the timeframe set out in the part 271 regulations. The new Federal requirements, however, do not take effect in an authorized State until the State adopts the requirements as a State law. EPA may not enforce them until it approves the State requirements as a revision to the authorized State program.

The Hazardous and Solid Waste Amendments of 1984 revised this system for requirements and prohibitions imposed under provisions added to the statute by the 1984 Amendments. New HSWA rules take effect in authorized States at the same time that they take effect in nonauthorized States. EPA is directed to carry out the HSWA requirements in authorized States until the State is granted authorization to do so. While States must still revise State law to impose HSWA requirements to achieve or retain RCRA authorization, the Federal rules apply until they do so.

Today's rules are generally more stringent than the preexisting Federal rules, which exempted recycled used oils from regulation as hazardous wastes, but provided management standards only for the burning of off-specification used oils. (See former 40 CFR part 266, subpart E.) Thus, states will be required to revise their programs to address today's rules. Moreover, the requirements for burning off-specification used oil promulgated today are more extensive than the preexisting

rules. EPA consequently expects that all States that adopted rules to reflect the existing requirements will need to revise their rules to be equivalent to the new "off-spec" standards.

Today's rules, however, are promulgated under section 3014(a) of RCRA, a provision that predates the 1984 amendments. The rules will take effect in states that do not have final authorization six months from the date that this rule is published in the Federal Register. In authorized states, the rules will not be applicable until a State revises its program to adopt equivalent requirements under State law.

40 CFR 271.21(e)(2) requires States that have final authorization to modify their programs to reflect Federal program changes and to submit their modifications to EPA for approval. The deadline by which the State must modify its program to reflect today's rules is July 1, 1994, if a statutory change is not needed, or July 1, 1995, if a statutory change is necessary. These deadlines may be extended in certain cases under 40 CFR 271.21(e)(3). Once EPA approves the State's submission, the State requirements become federally enforceable subtitle C requirements.

Unauthorized States that submit their final applications for initial authorization less than 12 months after the effective date of this rule are not required to include standards equivalent to these in their applications. Such states, however, must modify their programs to reflect today's rules under the schedule described above. States that submit final applications for initial authorization more than 12 months after the effective date of this rule must include standards equivalent to these rules in their applications. 40 CFR 271.3 sets out the requirements a state must meet when submitting a final application for initial authorization.

States with authorized RCRA programs already may have requirements similar to those in today's rule. These States may continue to enforce and administer their standards as a matter of State law. Such State rules, however, have not been assessed against the Federal rules promulgated today to determine whether they meet the statutory and regulatory requirements for authorization. Thus, such State rules cannot be considered part of the Federal RCRA program. EPA may not enforce them at this time.

B. Administration

As discussed in section VI.D. of the preamble, a used oil handler (e.g., transporter, processor/re-refiner, burner of off-specification rule, and marketer) who has not notified the EPA of the used oil management activity (e.g. used oil transporting, used oil processing and re-refining, fuel oil marketing, and burning of used oil as off-specification fuel) must notify the Agency of used oil activities and obtain an EPA identification number. The used oil generators are not subjected to the notification or EPA identification number requirement. Since 1985, the existing used oil marketers and burners of off-specification fuel have notified and have obtained the EPA identification numbers.

Used oil handlers who would be new to used oil recycling business must notify of their activity under regulations established to implement section 3010 of RCRA.[25] That is, in the unauthorized states, a used oil handler who has not previously notified of the used oil management activities must obtain an EPA notification form from EPA and submit the form (or a letter) 90 days from publication of these rules. In authorized states, the notification deadline will be established under state law (which must be no later than 90 days from effective date of state's used oil rules). The used oil handlers will obtain notification forms from state and submit forms (or letters) with state.

Those used oil generators who intend to become eligible for an exemption from the third-party liability under the CERCLA section 114(c) are required to use the used oil transporters with EPA identification number for sending used oil for offsite recycling. In authorized states, such generators must make sure that the used oil transporter they intend to use has notified the Agency and has an EPA identification number.

IX. Relationship of This Rule to Other Programs

A. RCRA

Land Disposal Restrictions

HSWA mandated that the Agency promulgate land disposal prohibition determinations under a specific schedule for wastes identified and listed prior to the enactment of HSWA (RCRA sections 3004(d), 3004(e), and 3004(g)(4), 42 U.S.C. 6924 (d), (e) and (g)(4). If the Agency failed to promulgate land disposal restrictions by the dates specified in section 3004(g)(4), the wastes were absolutely prohibited from land disposal after May 8, 1990 (or in some cases November 8, 1988, or July 8, 1987). HSWA also requires the Agency to make a land disposal prohibition determination for any hazardous waste that is newly identified or listed in 40 CFR part 261 after November 8, 1984, within six months of the date the new listing is promulgated (RCRA section 3004(g)(4), 42 U.S.C. 6924(g)(4). However, the statute does not provide for automatic restriction or prohibition of the land disposal of such wastes if EPA fails to meet this deadline.

Since used oils that are recycled are exempt from subtitle C regulation under § 261.6(a)(4), used oils that are recycled are not subject to the land disposal restrictions requirements of 40 CFR part 268. In effect, today's part 279 standards are crafted to restrict the land disposal of used oils and, therefore, the used oil management standards further the goals of the LDR program. Used oils that are disposed and exhibit a hazardous characteristic or are mixed with a listed hazardous waste remain subject to all applicable subtitle C requirements, including the land disposal restrictions requirements of 40 CFR part 268.

Wastes, including used oils that are destined for disposal, that exhibit the TC are considered newly identified wastes and are not yet covered by the LDR, unless also EP Toxic (see the Third Land Disposal Restrictions Rule, June 1, 1990, 55 FR 22520). EPA published an Advance Notice of Proposed Rulemaking for the land disposal restriction of TC wastes (56 FR 55160, October 24, 1991) and continues to evaluate the treatability and capacity analyses for these wastes. The Agency is currently developing a final rule to address this issue.

B. MARPOL 73/78

The International Convention for the Prevention of Pollution from Ships (1973), as modified by the 1978 Protocol addressing the same topic, is known as MARPOL 73/78. This is an international agreement that focuses on preventing ship-generated ocean pollution. Annexes I–V of MARPOL 73/78 address ocean pollution from oil, noxious liquid substances (*i.e.*, bulk liquid chemicals), harmful substances, sewage, and garbage, respectively.

Concerning today's rule, the Agency believes that used oil and hazardous waste management requirements apply to used oil generated upon ships only upon removal of the oily waste from the ship. Therefore, used oil on-board is not subject to RCRA requirements, and MARPOL requirements applicable to on-board oil wastes (hazardous and non-

[25] The regulations established today regulate used oil under the authority of section 3014(a) of RCRA. Since EPA is not listing or identifying recycled used oil as a hazardous waste under today's rule, section 3010 of RCRA technically does not apply. EPA is, however, incorporating the 3010 notification requirements into its used oil management standards.

hazardous) will not conflict with the part 279 requirements.

The Agency has determined that the ship owner/operator, the owner of the used oil, and the person removing the used oil from the ship can all be considered "generators" of the used oil for purposes of 40 CFR 260.10. Any of these parties could perform any or all of the duties of the generator.

C. Clean Water Act (CWA)

The Clean Water Act authorizes EPA to control the discharge of pollutants into navigable waters. Section 311(b)(5) of the Act establishes reporting requirements for the release of hazardous substances and oils into navigable waters, which include wetlands. Concerning used oil, releases of oil to navigable waters that (1) cause a sheen to appear on the surface, (2) violate applicable water quality standards, or (3) cause a sludge or emulsion to be deposited beneath the surface of the water or adjoining shorelines is reportable.

The Clean Water Act and recently enacted Oil Pollution Act authorize EPA to regulate activities that may harm navigable waters. As part of this mandate, EPA has established the Spill Prevention Control and Countermeasure (SPCC) program, which is designed to protect surface water from oil contamination. Each facility subject to the requirements is required to prepare and maintain an SPCC plan, which includes provisions for appropriate containment or diversionary structures to prevent discharged oil from reaching navigable waters. Concerning today's rule, used oil handlers must comply with all applicable SPCC requirements contained in 40 CFR part 112. EPA has, however, built the part 279 requirements upon the existing SPCC rules to minimize disruptions to existing regulatory programs.

D. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

Section 104 of CERCLA authorizes the federal government to respond to any release or substantial threat of a release into the environment of any hazardous substance and any release or threatened release of a pollutant or contaminant that may present an imminent and substantial danger to public health. Section 101(14) defines the term "hazardous substance" and section 101(33) defines "pollutant or contaminant." Both of these definitions expressly exclude "petroleum, including crude oil or any fraction thereof" unless a petroleum waste has been specifically listed under RCRA or other environmental statutes. The Agency has interpreted the petroleum exclusion to include crude oil and fractions of crude oil, including hazardous substances that are indigenous in petroleum substances. However, hazardous substances added to petroleum or that increase in concentration solely as a result of contamination of the petroleum are not part of the petroleum and thus are not excluded.[26] Therefore, used oil that contains a hazardous substance due to contamination is subject to CERCLA reporting, response, and liability provisions.

E. Hazardous Materials Transportation Act (HMTA)

The U.S. Department of Transportation (DOT) regulates the transportation of hazardous materials[27] in commerce (49 CFR parts 171 to 179). The regulations address: (a) Interstate transportation of hazardous materials by motor vehicle, rail car, aircraft and vessel and (b) intrastate transportation of certain hazardous materials (hazardous wastes, hazardous substances, and flammable cryogenic liquids in portable tanks and cargo tanks) by motor vehicle. Used oil may be flammable or combustible under DOT classifications. In addition, used oil that exhibits a characteristic of hazardous waste and is destined for disposal is classified as a hazardous material due to the requirement that hazardous used oils being disposed must be accompanied by a hazardous waste manifest.

Used oil generators (shippers) have to comply with any and all applicable DOT regulations for identification and classification, packaging, marking, labeling, and manifesting of used oil that is destined for disposal. Transporters (carriers) will have to comply with any and all applicable DOT regulations for placarding, manifesting, recordkeeping, reporting, and incident response for such used oils.

F. Toxic Substances Control Act (TSCA)

TSCA authorizes EPA to control the manufacture, import, use and disposal of chemical substances. Section 6(e) of TSCA mandates EPA to control the manufacture, import, use, and disposal of polychlorinated biphenyls (PCBs). A primary use of PCBs, a viscous oil, was as an insulating material for electrical equipment (dielectric). PCBs were almost always mixed with mineral oil, silicone, or other oily materials. Because of the potential hazards posed by the uncontrolled use and disposal of PCBs, EPA has established a comprehensive program to control PCBs from cradle to grave.

TSCA regulations control the use of PCBs [illegible] for dust suppression. 40 CFR 761.20(e), prohibits the use of "waste oil" that contains any detectable concentration of PCBs as a sealant, coating, or dust control agent. Concerning today's rule, used oil used for dust suppression must meet the requirements of both RCRA and TSCA.

A release of 1 pound of PCBs into the environment must be reported immediately to the National Response Center in accordance with section 103(c) of CERCLA. However, TSCA regulations require that any spill of material containing 50 ppm or greater PCBs into sewers, drinking water, surface water, grazing lands, or vegetable gardens must be reported. Concerning today's rule, if the used oil contains PCBs, the most stringent, applicable reporting requirement must be followed.

X. Regulatory Impact Analysis

Today's final rule combines a decision not to list recycled used oil with a set of tailored management standards for recycled used oil under section 3014 of RCRA applicable to used oil generators and subsequent handlers. This section of the preamble summarizes the cost and economic impact screening analysis of the 1992 used oil management standards.

Executive Order 12291 (46 FR 13193) requires that a regulatory agency determine whether a new regulation will be "major" and, if so, that a Regulatory Impact Analysis (RIA) be conducted. Three criteria are used to define a major rule: (1) That the rule has an annual effect on the economy of $100 million or more, (2) that the rule creates a major increase in costs or prices, or (3) that the rule has significant adverse effects on competition, employment, investment, productivity, innovation, or the ability of US based enterprises to compete with foreign-based enterprises in domestic or export markets. The Environmental Protection Agency believes that the 1992 Used Oil Management Standards do not comprise a major rule, and therefore a complete RIA is not required. The results of this cost screening analysis support this conclusion. A further discussion of the cost screening analysis is available in the regulatory docket for today's rule in a report titled, "Cost and Economic Impact of 1992 Used Oil Management Standards," August 4, 1992.

[26] Memorandum from Francis Blake, EPA's General Counsel, concerning the CERCLA petroleum exclusion, July 31, 1987.

[27] Any material identified or classified as a hazardous waste under RCRA is classified a hazardous material under DOT (49 CFR 171.3).

Based on the preliminary cost screening analysis for the options presented in the September Supplemental Notice, public comments received, and subsequent analysis in response to comments, the Agency estimates that these management standards will most likely impose nationwide annualized compliance costs of less than $10 million per year, within a range of between $4 and $11 million. Costs of this magnitude are not expected to result in measurable changes in recycled used oil flows, either for on-site uses or within the commercial recycling sectors. With possible localized exceptions, the Agency does not expect the standards to result in a substantial number of business failures among used oil recycling companies or to affect employment, prices, or international trade in any measurable degree.

Although the Agency has not been able to adequately quantify the benefits to the environment or to human health of these management standards, due to the lack of comprehensive data on the frequency and extent of used oil releases to the environment, EPA believes that today's decisions will result in two principal types of benefits. First, by requiring specific secondary containment measures for used oil storage and other tankage at all major used oil handling facilities, the Agency is providing an additional safeguard against any substantial environmental release of used oil to the soil, to ground waters, or to surface waters at points where releases would be most likely to occur.

The Agency does not expect today's decisions by themselves to substantially expand used oil recycling. However, it is a relatively low cost insurance policy against the environmental mismanagement of used oil resources within the commercial recycling sectors. Implementation of section 3014 management standards limits CERCLA liability for those automobile servicing facilities that accept do-it-yourselfer (DIY) used oil for recycling and thus encourages expansion of collection locations. Thus, today's rule is consistent with the could provide a necessary complement to a wide variety of possible future private sector, State, or federal government initiatives to encourage increased recycling of household and other do-it-yourselfer used oil not presently being adequately managed and which is generally not effectively controlled by traditional regulatory approaches.

The remainder of this section of the preamble briefly describes the major options for management standards considered by the Agency in reaching today's decision, summarizes estimated compliance cost, and reviews expected impacts.

A. Regulatory Options Considered

EPA has considered a wide range of management standards options over the years, ranging from a listing of used oil as a hazardous waste under virtually full subtitle C standards for generators and handlers to various tailored options under section 3014(a) of RCRA. A summary of the approximate compliance costs for several of these alternatives is presented in Table X.1.

TABLE X-1.—HISTORICAL COMPARISON OF COMPLIANCE COSTS OF OPTIONS CONSIDERED FOR USED OIL MANAGEMENT STANDARDS

(Millions of 1991 dollars per year)

Listing recycled used oil as hazardous waste without tailored 3014 standards (1985 proposal option updated to 1991) [1]	$500
Section 3014 management options (1985 proposal updated to 1991) [2]	$204
1991 supplemental notice [3]	$2-25
1992 final rule	$4-11

[1] Option assumed burning as used oil fuel under part 266, subpart E, rather than as hazardous waste under subparts D and H. Costs are updated to 1991 from the 1985 RIA to allow for inflation and certain intervening regulatory changes such as the underground storage tank (UST) rule. However, costs for this historical proposal do not include estimates for corrective action for prior releases or cost implications of the mixture and derived from rules. Costs are not revised to address comments on the 1985 proposed rule.

[2] Costs updated from the 1985 RIA to allow for inflation, but not to respond to comments.

[3] Costs are as presented in table X.D.1. (56 FR 48071, September 23, 1991). They are not revised to address comments. However, see subsection A.2 below for discussion of other cost estimates.

1. Listing Recycled Used Oil Without Tailored Standards

Listing recycled used oil, without issuing special section 3014 Management Standards or otherwise exempting recycled used oil from subtitle C regulations, would have subjected recycled used oil generators, handlers, and users to the full spectrum of hazardous waste management standards. These would include recordkeeping and manifesting of all shipments, storage requirements including secondary containment, facility closure and financial assurance, and additional burning restrictions. In the extreme it would also impose facility corrective action for prior releases, although this was not covered in the 1985 RIA or in the present update.

Since this was not presented as an explicit option in the September 1991 Supplemental Notice, the Agency did not present compliance cost estimates for Full subtitle C management of recycled oil in the 1991 Cost and Impact Screening Analysis. However, a similar Full subtitle C management scenario was presented as Alternative 1 in the Regulatory Impact Analysis (November, 1985) accompanying the 1985 used oil proposed rulemaking. The Agency has subsequently revised and updated the 1985 estimate for this regulatory alternative to account for intervening changes in certain subtitle C requirements, recycle market changes and general cost inflation. We found that, even assuming retention of the present part 266 subpart E used oil burning requirements (in place of the part 266, subparts D and H hazardous waste burning standards for boilers and furnaces), the incremental annual cost of subtitle C management for recycled used oil would still cost about $500 million per year, or about $0.53 per gallon of oil recycled. This does not include consideration of additional possibly substantial costs for prior release corrective action or for implications of the mixing and derived-from rules.

The Agency has long recognized that used oil management standards drawn too stringently could be counterproductive: that by imposing too high a cost on acceptable forms of recycling, the regulations could actually encourage increased dumping and other environmentally undesirable practices by generators, commercial haulers, and others.

Although incremental management costs of $0.53 per gallon for recycling would still be substantially less than alternative subtitle C disposal options for most generators, costs in this range would also provide a strong incentive to avoid regulation altogether by engaging in illegal dumping and improper land disposal and burning activity. The Agency notes that virtually all used oil fuel is currently sold for little more than and in some instances less than 53 cents per gallon: Imposing regulatory requirements which cost this amount would virtually eliminate recycling incentives within most of the commercial recycling sector.

2. Tailored Standards Under Section 3014

More appropriate to today's final rule, the Agency has also considered a wide range of tailored standards under section 3014(a) of RCRA. The estimated annual cost in the RIA for the 1985 proposal was $167 million ($204 million updated to 1991). The 1985 proposal closely paralleled subtitle C Standards in many respects.

The September 1991 Supplemental Notice provided additional options which were substantially less costly than earlier proposals, but which still covered all sectors and a wide range of permitting, testing, spill prevention and cleanup, storage, recordkeeping and reporting requirements.

The nationwide annual costs estimated for the 1991 Supplemental Proposal ranged from $25 million per year (with no small quantity generator exemption) to about $2 million per year with an extensive SQG exemption.

Various commenters criticized the 1991 estimates as being too low. In a few instances it was argued that EPA's unit costs for specific activities or services were too low. Another criticism was that the Agency has overestimated the degree to which various standards were already being met, either through normal business practices at establishments (e.g., generator recordkeeping regarding used oil sales transactions) or due to the pre-existence of other federal, State or local regulatory requirements (e.g., OSHA workplace regulations, SPCC spill prevention and storage requirements, or local fire ordinances).

The Agency has reviewed its estimating assumptions in detail. While, in the main, most of the assumptions and resulting cost estimates in the September 1991 costs analysis are reasonable given the limited available data the Agency was able to gather, we agree that many of the estimates are subject to substantial uncertainties and should be interpreted accordingly. In addition, several possible management standard elements were not included in the cost screening, either due to oversight or to the premise of the Notice that certain elements might be considered subsequently in a Phase II proposal. Examples of additional management standard options and annual costs that could have been added in a more extensive analysis include the following:

- Subtitle C secondary containment for used oil collection and processor tankage—$8 million.
- Closure and financial responsibility for processors and rerefiners—$2 million.
- Mandatory testing of all incoming and outgoing shipments of used oil—$15–20 million.

Though not costed in detail, with these and other possible design features, especially more extensive requirements on the nation's nearly 700,000 commercial, industrial, and large farms used oil generators (though not necessarily included explicitly in the September Notice), the national cost estimates for used oil regulation in the 1991 Proposal could well have exceeded $100 million per year. On the other hand, several of the options discussed, especially combinations involving small quantity or other generator exemptions and only selective controls on other sectors, would have suggested costs on the order of $10 million or less.

Based on 750 million gallons per year of used oil entering the commercial used oil recycling system, national management standards costing $100 to $200 million per year would translate roughly into an average of 13 to 26 cents per gallon of oil recycled. As stated above, this additional cost (which EPA estimates to equal or comprise a significant fraction of the price of products derived from used oil) would have dramatically reduced used oil recycling and may have led to increased uncontrolled disposal.

B. Final Rule Compliance Costs

As described in section VI of this preamble, today's rulemaking pertains only to land based management standards for recycled used oil under section 3014(a) of RCRA. It does not impose hazardous waste listing or further regulation of used oil processing or rerefining residuals, which continue to be subject to testing for toxicity characteristics under existing regulations prior to disposal.

1. Nationwide Annual Costs

Table X.2 summarizes the nationwide annual compliance costs for today's rule, by affected sector and for each substantive requirement. Total estimated costs range between approximately $4.1 to $11.0 million per year, with a best estimate of about $7.5 million. The major portion of the total falls on the generating sector ($2.7 to $5.9 million, mostly for future spill cleanups of environmental releases) and on the used oil processing sector ($1.3 to $4.8 million, primarily for biennial reporting, secondary containment of tank storage areas, additional operational recordkeeping, and new closure requirements).

TABLE X–2.—NATIONWIDE ANNUAL COMPLIANCE COSTS FOR 1992 USED OIL MANAGEMENT STANDARDS

[In thousands of dollars]

Requirement	Generators	Independent collectors	Burners (off-spec)	Processors/ rerefiners/fuel oil dealers	Totals
Storage:					
Label tanks and drums	602	2	3	4–6	611–61
Drums and tanks in "good" condition	61–99	(*)	(*)	(*)	61–
Secondary containment		15–179	11–136	69–884	95–1,2
Reporting, planning, recordkeeping:					
Identification numbers		1	(*)	(*)	1
Biennial report				118–155	118–1
Analysis plan				9–12	9–
Contingency plan				69–116	69–1
Shipment and delivery records		(*)	(*)	(*)	
Operating record				435–580	435–580
Closure				613–2,838	613–2,8
Response to environmental releases	2,183–6,281	6	(*)	3–4	2,191–6,2
Totals	2,746–6853	23–187	14–141	1,327–4 784	4,110–10,9

* Indicates the facility type is subject to the requirement, but no incremental cost is incurred, while a blank space indicates the facility type is not subject to the requirement.

For several of the line item requirements, a wide range of estimated costs is presented, reflecting substantial uncertainty regarding the extent of existing baseline compliance with the newly imposed standards. As noted in the preamble to the September 1991 Supplemental Notice, many existing federal, State, and local government regulations already directly regulate or impinge upon many of the same practices addressed by today's rules.

For example, at least 7 States regulate used oils as hazardous wastes in varying degrees, and both the federal oil spill prevention and control and counter measures program (SPCC) and OSHA regulations relate to preparedness and prevention as well as cleanup of spilled oils including used oils.

In particular, it is notable that SPCC regulations cover all of the 90 percent or more of all major used oil handling facilities (collectors, processors, fuel oil dealers, and burners) that are located near surface waters. Although the presence of these other regulations has in some instances allowed the Agency to forgo new regulatory requirements, in other cases, lack of data or definitive standards contributes to considerable uncertainty regarding the adequacy of existing standards or extent of compliance. For some additional used oil requirements contained in today's rule, such as spill cleanup for non-SPCC generators or closure soil remediation at processing facilities, EPA does not have sufficiently comprehensive information on the frequency or extent of necessary compliance actions to estimate potential costs more precisely.

2. Individual Facility Costs

Costs at the individual facility level can vary widely, depending on baseline compliance assumptions and differing sector requirements in today's management standards. In general, the lowest unit costs will be experienced by generators, since they face the fewest and (usually) the least costly new requirements. The vast majority of generators will face no incremental costs other than tank or container labeling.

Compliance costs at the individual facility level are presented in Table X.3 for commercial used oil handlers and burners of off-specification used oil fuel. Within the commercial management sectors, the lowest facility-level costs will be born by smaller independent collectors and industrial boiler and furnace burners of off-specification fuel. Burners that only burn specification fuel experience no new requirements and are not considered within the scope of affected facilities in this analysis. For independent collectors and affected burners, the higher cost facilities are those requiring upgraded secondary containment, including both secondary release containment berms and impervious pavement in storage areas. Independent collectors may also incur environmental release costs for releases outside of secondary containment areas. Such facilities may or may not currently be in compliance with baseline SPCC and OSHA regulations. Facilities in these sectors with adequate preexisting secondary containment (50 to 90 percent of facilities according to EPA's costing assumptions) will otherwise face negligible new cost requirements.

TABLE X-3.—ANNUAL FACILITY-LEVEL COMPLIANCE COSTS: COMMERCIAL USED OIL HANDLERS AND BURNERS

Facility type	Total number of facilities [1]	Cost range for affected facilities (dollars per year)
Independent collector	383	$6–$1,976
Minor processors	70	4,280–22,389
Major processors	112	6,989–44,155
Re-refiners	4	9,246–64,671
Fuel oil dealers:		
Low estimate	25	4,280–22,389
High estimate	100	4,280–22,389
Total handlers:		
Low estimate	594	6–64,671
High estimate	669	6–64,671
Burners	1,155	2–335

[1] The number of facilities affected by individual requirements varies by requirement, from zero cost (unaffected) up to all facilities affected.

The most substantial unit costs will be born by facilities in the processing sectors (including processors, rerefiners, and fuel oil dealers that blend off-specification fuel). All facilities in this sector will face additional record keeping, reporting, and contingency planning as well as new tank closure requirements. In addition, the cost estimates assume that some fraction will require upgraded secondary containment, closure soil treatment, and release response costs to meet today's standards.

3. Cost Per Gallon of Used Oil

The total annual costs of these section 3014 management standards ($4.1 to $11.0 million per year), averaged across the nation's total annual recycling rate of about 900 million gallons per year, approximates 0.5 to 1.2 cents per gallon of recycled oil. Focusing only on the 775 million gallons per year flowing through the commercial recycling system, the total nationwide compliance cost of $1.3 to $4.8 million for the recycling sectors would translate into an average cost to commercial recyclers of about 0.2 to 0.6 cents per gallon by EPA's estimates.

Table X.4 summarizes the Agency's cost per gallon estimates in more detail for affected facilities in the commercial handling and burning sectors. The highest cost per gallon figures are at the small processor and fuel oil dealer-blender facilities, with costs at the most affected of these facilities possibly ranging as high as 2.2 cents per gallon. These high relative costs are explained primarily by the relatively low volume of used oil handled and the relatively high fixed costs of secondary containment and closure requiring soil cleanup.

TABLE X-4.—NATIONAL AVERAGE AND INDIVIDUAL FACILITY-LEVEL COMPLIANCE COST-PER-GALLON: COMMERCIAL USED OIL HANDLERS AND BURNERS

Facility type	Total number of facilities	Facility cost per gallon (cents)	National average cost per gallon (cents)
Independent collector	383	0.00–0.66	0.02–0.16
Minor processors	70	0.43–2.24	0.46–1.20
Major processors	112	0.14–0.88	0.16–0.50
Rerefiners	4	0.05–0.32	0.05–0.16
Fuel oil dealers:			
Low estimate	25	0.43–2.24	[1]0.17–0.45
High estimate	100	0.43–2.24	[1]0.69–1.82
Total handlers:			
Low estimate	594	0.00–2.24	0.16–0.20
High estimate	669	0.00–2.24	0.48–0.58
Burners	1,155	0.00–0.22	[1]0.00–0.03

[1] Includes both on-spec and off-spec oil, for a total of 66 million gallons for fuel oil dealers and 55.1 million gallons for burners. If considered separately, off-spec oil will be a fraction of this total, which would make the cost-per-gallon higher.

In contrast, larger processors and rerefiners, even those with similar more stringent requirements, would experience substantially lower per gallon compliance costs, due to the economies of scale inherent in their larger oil volumes and the nature of the major compliance activities. Among the larger facilities in the processing and rerefiner groups, even the worst case situations would still face per gallon costs of less than one cent per gallon of oil. Most facilities would see costs less than a half-cent per gallon, and a substantial fraction would be under a quarter-cent.

C. Final Rule Impacts

1. Effects on Used Oil Flows

Costs for generators are primarily fixed costs or spill clean-up costs which may correlate only weakly with the volume of used oil handled. Therefore, EPA does not expect generator compliance costs to influence acceptance of household Do-It-Yourself (DIY) used oil or to adversely change the relative costs of recycling compared

with dumping or disposal. Thus, used oil flows to recycling should not be negatively affected by these rules, and recycling flows could be positively affected due to reduced spills and spill losses and the CERCLA exemptions for service stations.

Costs for the commercial recycling sectors (including collectors, processors, rerefiners, and fuel oil dealers) total $1.3 to 4.8 million per year. If substantial enough, these costs should have affected recycle flows, either by causing a loss of collector/processor facilities or by being shifted back onto generators and providing a disincentive to recycle. However, set against 775 million gallon per year entering the commercial recycle flows, these total compliance costs average only 0.2 to 0.6 cents per gallon. These costs are not large enough to substantially affect generator decisions concerning recycling, even if all these costs were passed back to the generator in pickup charges. In the worst case, a few small processors could face unit costs as high as 2.2 cents per gallon if they have to install secondary containment and also face soil removal treatment closure costs. This does not suggest major repercussions for recycle flows, but could involve some small processing facility dislocations.

Burners face new compliance costs for storage of used oil derived fuel under today's rulemaking only if they burn off-specification fuel and are not already in compliance due to prior SPCC or OSHA requirements. Numbers of such burners are not known with any accuracy, although about 1200 in total have notified EPA as off-specification burners since 1985. Affected burners have three options:

(1) Incur the costs and either absorb them or pass them back to fuel marketers in negotiated lower prices. The total maximum cost here for the maximally affected burner is 0.2 cents per gallon. It is questionable whether this is a decision-changing level.

(2) Substitute fuel—either virgin fuel oil, currently at a higher cost of up to 15 percent, or specification used oil fuel from another used oil fuel dealer.

(3) Negotiate with the present used oil fuel supplier to pre-blend (with other used oil or virgin fuel) to meet the specification.

Basically the same analysis and options apply to fuel oil dealers that blend off-specification fuel as for burners. EPA's current estimate is that less than 25 percent of marketed used oil-derived fuel is routed through dealers. The fractions of total used oil fuel that is currently off-specification fuel is thought to be low, based on recent communications with used oil processing industry representatives and EPA's own sampling of unprocessed used oil. Based on the low compliance cost per gallon, flows in this sector will not be significantly affected one way or another.

2. Effects on Used Oil Management Structure

In general, the structure of the recycling industry could be somewhat influenced by today's rule. If anything, there will be a tendency for some small processors that do not now have adequate secondary containment to become less competitive (2.2 cents gallon maximum competitive disadvantage). These would generally be the same facilities with prior releases to the environment that would have to be cleaned up at closure (with soil treatment) and they may opt to close. Already-marginal operations with poor credit might not survive this requirement.

There may also be some tendency for rerefiners to be advantaged with respect to other processors because of lower cost/gallon compliance costs. The main factors influencing this judgment are:

1. Rerefiners are newer and are arguably (according to their comments) already in compliance with all or most of today's requirements.

2. Rerefiners are large and have economies of scale relative to smaller processors in terms of compliance cost per gallon.

3. Rerefiners are less affected by fuel market (burner) effects, because they typically produce only a small fraction of output as fuel and the rerefined fuel product is typically unregulated specification fuel.

In summary, the Agency expects no effects on generators. Generators ultimately pay the total costs (either directly or indirectly, via shifting) but these total costs spread over hundreds of thousands of generators will not measurably affect generator day-to-day decisions.

3. Effects on Human Health and the Environment

Since the Agency believes that recycle flows will not be obstructed or seriously altered by this rule, the Agency expects no negative effects on human health or the environment due to compliance costs. Do-It-Yourself oil recycling will not be decreased and may in fact be increased by the CERCLA exemption for service stations.

The four major effects of today's rule making would generally be positive, but of unknown magnitude. These include:

1. Increased spill cleanup and reduced environmental releases for generators.

2. Better secondary containment and future spill cleanup for larger handlers.

3. Closure requirements that provide for cleanup of prior tankage area releases at processor/handler facilities.

4. More comprehensive tracking at the collector level, due to expansion of notification and recordkeeping for all collectors and not just those who currently market directly to burners.

4. Relationship to Future Agency Actions Regarding Financial Incentives or Other Actions

Today's management standards are designed to protect human health and environmental risk from ground pathway damages with minimum effect on existing used oil recycling flows and markets. As such they provide minimum interference with used oil markets and thus are inherently neutral with respect to future incentive programs. Since the Agency believes they do not measurably redirect flows, today's rules do not preempt or compete with objectives or goals of incentives currently under study to improve recycling. Basically today's rules provide uniform standards to be met by used oil handlers in terms of storage and tracking. They do not compete with, preclude, or bias future Agency or other initiatives to expand recycling nor are the costs of today's rules large enough to affect the efficiency of such future programs.

The Agency believes that today's management standards are compatible with any future program designed to increase (or redirect) recycling since they do not in themselves introduce any arbitrary or unnecessary imbalances between or among recycling technologies or end-used used-oil derived product markets.

XI. Regulatory Flexibility Act

The Regulatory Flexibility Act (RFA) of 1980 (Pub. L. 96-345), requires Federal agencies to consider "small entities" throughout the regulatory process. Section 603 of the RFA requires an initial screening analysis to be performed to determine whether a substantial number of small entities will be significantly affected by the regulation. If so, regulatory alternatives which eliminate or mitigate the impacts must be considered.

Based on employment or sales, the vast majority of all used oil generators, collectors and processors are small businesses: blenders of virgin and used oil fuel, re-refiners, and burners are also likely to be small businesses. Overall, the economic analysis indicates that impacts are not significant for over 99 percent of the generators and for all of the other facility types affected, with the possible exception of some minor processors and some fuel oil dealers that currently blend used oil fuel with virgin oil fuel. Only a small fraction of

the farm section (about 2.5 percent), including only large commercial farms, will be subject to today's rule as a result of the small farm generator exemption.

A very small fraction (less than 0.2 percent) of small business used oil generators may face incremental costs of approximately $1,300 per year to cleanup a 250 gallon spill. This annual cost would only be incremental if the facility would not have cleaned up this spill without these new requirements to address release to the environment. We believe this is not an unreasonable cost burden for a very small fraction of small businesses, especially given the potential environmental damage of a spill of this size. Approximately 90 percent of generators would incur cost of less than $1 per year for labels for tanks and drums.

For the remaining sectors, only some minor processors and some fuel blenders/fuel oil dealers would incur significant costs. Approximately 30 percent of minor processors in the high-cost scenario would face incremental compliance costs of 2.2 cents per gallon. This cost increase may be sufficient to put the facility at a competitive disadvantage with other used oil processors. These minor processors might not be able to pass these costs back to customers since other firms that had already invested in these measures would incur lower costs. If the facility were already a marginal operation with poor credit, it might be forced to close.

Similarly, some small business fuel oil dealers that blend used oil fuel with virgin oil fuel might incur cost as high as 2.2 cents per gallon of used oil. Since the used oil is blended with virgin fuel, the cost impact per gallon of final product would be substantially less (only 0.2 cents per gallon of finished product assuming a typical blending rate of 10 percent used oil). Furthermore, these blenders may have other, low cost, option for avoiding compliance costs such as refusing to accept off-specification oil from used oil suppliers, or simply discontinuing blending used oil at all.

In general, although a large population of small businesses will be subject to various provisions of this rule, only an extremely small fraction of these businesses will incur substantial costs. Therefore the Agency certifies that the final rule will not have significant economic impacts on substantial numbers of small businesses or entities.

XII. Paperwork Reduction Act

The information collection requirements in this final rule have been submitted for approval to the Office of Management and Budget (OMB) under the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.* When approved, or if not approved by the effective date of this rule, EPA will publish a technical amendment to that effect in the Federal Register. An information Collection Request document has been prepared by EPA [ICR No. 1286.03] and a copy may be obtained from Sandy Farmer, Information Policy Branch, EPA, 401 M Street, SW.

Public reporting burden for this collection of information varies by sector. The public reporting burden for used oil transporters averages from 18 to 27 minutes annually per respondent. For used oil processing and re-refining facilities, the reporting burden averages from 48 minutes to 25 hours annually per respondent, and for burners of off-specification fuel, the reporting burden averages as 9 minutes annually per respondent. The type of information required includes, time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC, 20460; and to the Office of Management and Budget, Washington, DC, 20503, marked "Attention: Desk Officer for EPA."

List of Subjects

40 CFR Part 260

Administrative practice and procedure, Confidential business information, Hazardous waste.

40 CFR Part 261

Hazardous waste, Recycling, Reporting and recordkeeping requirements.

40 CFR Part 266

Energy, Hazardous waste, Petroleum, Recycling, Reporting and recordkeeping requirements.

40 CFR Part 271

Administrative practice and procedure, Confidential business information, Hazardous materials transportation, Hazardous waste, Indians-lands, Intergovernmental relations, Penalties, Reporting and recordkeeping requirements, Water pollution control, Water supply.

40 CFR Part 279

Petroleum, Recycling, Reporting and recordkeeping requirements, Used oil.

Dated: August 11, 1992.

William K. Reilly,

Administrator.

For the reasons set out in the preamble, 40 CFR chapter I is amended as follows:

PART 260—HAZARDOUS WASTE MANAGEMENT SYSTEM: GENERAL

1. The authority citation for part 260 continues to read as follows:

Authority: 42 U.S.C. 6905, 6912(a), 6921-6927, 6930, 6934, 6935, 6937, 6938, 6939, and 6974.

2. Section 260.10 is amended by adding a definition for "Used Oil", in alphabetical order to read as follows:

§ 260.10 Definitions.

* * * * *

Used oil means any oil that has been refined from crude oil, or any synthetic oil, that has been used and as a result of such use is contaminated by physical or chemical impurities.

* * * * *

PART 261—IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

3. The authority citation for part 261 continues to read as follows:

Authority: 42 U.S.C. 6905, 6912(a), 6921, 6922, and 6938.

4. Section 261.3(a)(2) is amended by adding paragraph (v) to read as follows:

§ 261.3 Definition of Hazardous Waste.

(a) * * *

(2) * * *

(v) *Rebuttable presumption for used oil.* Used oil containing more than 1000 ppm total halogens is presumed to be a hazardous waste because it has been mixed with halogenated hazardous waste listed in subpart D of part 261 of this chapter. Persons may rebut this presumption by demonstrating that the used oil does not contain hazardous waste (for example, by using an analytical method from SW-846, Third Edition, to show that the used oil does not contain significant concentrations of halogenated hazardous constituents listed in appendix VIII of part 261 of this chapter). EPA Publication SW-846, Third Edition, is available for the cost of $110.00 from the Government Printing Office, Superintendent of Documents, PO Box 371954, Pittsburgh, PA 15250-7954, 202-783-3238 (document number 955-001-00000-1).

(A) The rebuttable presumption does not apply to metalworking oils/fluids containing chlorinated paraffins, if they are processed, through a tolling agreement, to reclaim metalworking

oils/fluids. The presumption does apply to metalworking oils/fluids if such oils/fluids are recycled in any other manner, or disposed.

(B) The rebuttable presumption does not apply to used oils contaminated with chlorofluorocarbons (CFCs) removed from refrigeration units where the CFCs are destined for reclamation. The rebuttable presumption does apply to used oils contaminated with CFCs that have been mixed with used oil from sources other than refrigeration units.

• • • • •

§ 261.5 [Amended]

5. Section 261.5(j) is amended by revising "subpart E of part 266" to read "subpart G of part 279".

§ 261.6 [Amended]

6. Section 261.6 is amended by removing paragraph (a)(2)(iii); and redesignating paragraphs (a)(2) (iv) and (v) as paragraphs (a)(2) (iii) and (iv).

7. Section 261.6 is amended by removing paragraph (a)(3) (iii), and redesignating paragraphs (a)(3) (iv) through (a)(3)(viii) as paragraphs (a)(3)(iii) through (a)(3)(vii).

8. Section 261.6 is amended by adding paragraph (a) (4) to read as follows:

§ 261.6 Requirements for recyclable materials.

(a) • • •

(4) Used oil that is recycled and is also a hazardous waste solely because it exhibits a hazardous characteristic is not subject to the requirements of parts 260 through 268 of this chapter, but is regulated under part 279 of this chapter. Used oil that is recycled includes any used oil which is reused, following its original use, for any purpose (including the purpose for which the oil was originally used). Such term includes, but is not limited to, oil which is re-refined, reclaimed, burned for energy recovery, or reprocessed.

• • • • •

PART 266—STANDARDS FOR THE MANAGEMENT OF SPECIFIC HAZARDOUS WASTES AND SPECIFIC TYPES OF HAZARDOUS WASTE MANAGEMENT FACILITIES

9. The authority citation for part 266 continues to read as follows:

Authority: Secs. 1006, 2002(a), 3004, and 3014 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended (42 U.S.C. 6905, 6912(a), 6924, and 6934).

Subpart E—[Removed]

10. Subpart E of part 266 is removed and reserved.

11. Section 266.100 is amended by revising paragraph (b)(1) to read as follows:

§ 266.100 Applicability.

• • • • •

(b) • • •

(1) Used oil burned for energy recovery that is also a hazardous waste solely because it exhibits a characteristic of hazardous waste identified in subpart C of part 261 of this chapter. Such used oil is subject to regulation under part 279 of this chapter.

• • • • •

PART 271—REQUIREMENTS FOR AUTHORIZATION OF STATE HAZARDOUS WASTE PROGRAMS

12. The authority citation for part 271 continues to read as follows:

Authority: 42 U.S.C. 6905, 6912(a), and 6926.

Subpart A—Requirements for Final Authorization

13. Section 271.1(a) is amended by revising paragraph (a) to read as follows:

§ 271.1 Purpose and Scope.

(a) This subpart specifies the procedures EPA will follow in approving, revising, and withdrawing approval of State programs and the requirements State programs must meet to be approved by the Administrator under sections 3006(b), (f) and (h) of RCRA.

• • • • •

14. Subpart A of part 271 is amended by adding § 271.26 to read as follows:

§ 271.26 Requirements for used oil management.

The State shall have standards for used oil management which are equivalent to 40 CFR part 279. These standards shall include:

(a) Standards for used oil generators which are equivalent to those under subpart C of part 279 of this chapter;

(b) Standards for used oil collection centers and aggregation points which are equivalent to those under subpart D of part 279 of this chapter;

(c) Standards for used oil transporters and transfer facilities which are equivalent to those under subpart E of part 279 of this chapter;

(d) Standards for used oil processors and re-refiners which are equivalent to those under subpart F of part 279 of this chapter;

(e) Standards for used oil burners who burn off-specification used oil for energy recovery which are equivalent to those under subpart G of part 279 of this chapter;

(f) Standards for used oil fuel marketers which are equivalent to those under subpart H of part 279 of this chapter; and

(g) Standards for use as a dust suppressant and disposal of used oil which are equivalent to those under subpart I of part 279 of this chapter. A State may petition (as part of its authorization petition submitted to EPA under § 271.5 EPA to allow the use of used oil (that is not mixed with hazardous waste and does not exhibit a characteristic other than ignitability) as a dust suppressant. The State must show that it has a program in place to prevent the use of used oil/hazardous waste mixtures or used oil exhibiting a characteristic other than ignitability as dust suppressant. In addition, such programs must minimize the impacts of use as a dust suppressant on the environment.

15. Title 40 of the Code of Federal Regulations is amended by adding part 279 to read as follows:

PART 279—STANDARDS FOR THE MANAGEMENT OF USED OIL

Subpart A—Definitions

Sec.
279.1 Definitions.

Subpart B—Applicability

279.10 Applicability.
279.11 Used oil specifications.
279.12 Prohibitions.

Subpart C—Standards for Used Oil Generators

279.20 Applicability.
279.21 Hazardous waste mixing.
279.22 Used oil storage.
279.23 On-site burning in space heaters.
279.24 Off-site shipments.

Subpart D—Standards for Used Oil Collection Centers and Aggregation Points

279.30 Do-it-yourselfer used oil collection centers.
279.31 Used oil collection centers.
279.32 Used oil aggregate points owned by the generator.

Subpart E—Standards for Used Oil Transporter and Transfer Facilities

279.40 Applicability.
279.41 Restrictions on transporters who are not also processors or re-refiners.
279.42 Notification.
279.43 Used oil transportation.
279.44 Rebuttable presumption for used oil.
279.45 Used oil storage at transfer facilities.
279.46 Tracking.
279.47 Management of residues.

Subpart F—Standards for Used Oil Processors and Re-Refiners

279.50 Applicability.
279.51 Notification.
279.52 General facility standards.
279.53 Rebuttable presumption for used oil.

Authority: Sections 1008, 2002(a), 3001 through 3007, 3010, 3014, and 7004 of the Solid Waste Disposal Act, as amended (42 U.S.C. 6905, 6912(a), 6921 through 6927, 6930, 6934, and 6974); and Sections 101(37) and 114(c) of CERCLA (42 U.S.C. 9601(37) and 9614(c)).

Subpart A—Definitions

§ 279.1 Definitions.

Terms that are defined in §§ 260.10, 261.1, and 280.12 of this chapter have the same meanings when used in this part.

Aboveground tank means a tank used to store or process used oil that is not an underground storage tank as defined in § 280.12 of this chapter.

Container means any portable device in which a material is stored, transported, treated, disposed of, or otherwise handled.

Do-it-yourselfer used oil collection center means any site or facility that accepts/aggregates and stores used oil collected only from household do-it-yourselfers.

Existing tank means a tank that is used for the storage or processing of used oil and that is in operation, or for which installation has commenced on or prior to the effective date of the authorized used oil program for the State in which the tank is located. Installation will be considered to have commenced if the owner or operator has obtained all federal, state, and local approvals or permits necessary to begin installation of the tank and if either (1) A continuous on-site installation program has begun, or

(2) The owner or operator has entered into contractual obligations—which cannot be canceled or modified without substantial loss—for installation of the tank to be completed within a reasonable time.

Household "do-it-yourselfer" used oil means oil that is derived from households, such as used oil generated by individuals who generate used oil through the maintenance of their personal vehicles.

Household "do-it-yourselfer" used oil generator means an individual who generates household "do-it-yourselfer" used oil.

New tank means a tank that will be used to store or process used oil and for which installation has commenced after the effective date of the authorized used oil program for the State in which the tank is located.

Processing means chemical or physical operations designed to produce from used oil, or to make used oil more amenable for production of, fuel oils, lubricants, or other used oil-derived product. Processing includes, but is not limited to: blending used oil with virgin petroleum products, blending used oils to meet the fuel specification, filtration, simple distillation, chemical or physical separation and re-refining.

Re-refining distillation bottoms means the heavy fraction produced by vacuum distillation of filtered and dehydrated used oil. The composition of still bottoms varies with column operation and feedstock.

Tank means any stationary device, designed to contain an accumulation of used oil which is constructed primarily of non-earthen materials, (e.g., wood, concrete, steel, plastic) which provides structural support.

Used oil means any oil that has been refined from crude oil, or any synthetic oil, that has been used and as a result of such use is contaminated by physical or chemical impurities.

Used oil aggregation point means any site or facility that accepts, aggregates, and/or stores used oil collected only from other used oil generation sites owned or operated by the owner or operator of the aggregation point, from which used oil is transported to the aggregation point in shipments of no more than 55 gallons. Used oil aggregation points may also accept used oil from household do-it-yourselfers.

Used oil burner means a facility where used oil not meeting the specification requirements in § 279.11 is burned for energy recovery in devices identified in § 279.61(a).

Used oil collection center means any site or facility that is registered/licensed/permitted/recognized by a state/county/municipal government to manage used oil and accepts/aggregates and stores used oil collected from used oil generators regulated under subpart C of this part who bring used oil to the collection center in shipments of no more than 55 gallons under the provisions of § 279.24. Used oil collection centers may also accept used oil from household do-it-yourselfers.

Used oil fuel marketer means any person who conducts either of the following activities:

(1) Directs a shipment of off-specification used oil from their facility to a used oil burner; or

(2) First claims that used oil that is to be burned for energy recovery meets the used oil fuel specifications set forth in § 279.11 of this part.

Used oil generator means any person, by site, whose act or process produces used oil or whose act first causes used oil to become subject to regulation.

Used oil processor/re-refiner means a facility that processes used oil.

Used oil transfer facility means any transportation related facility including loading docks, parking areas, storage areas, and other areas where shipments of used oil are held for more than 24 hours during the normal course of transportation and not longer than 35 days. Transfer facilities that store used oil for more than 35 days are subject to regulation under subpart F of this part.

Used oil transporter means any person who transports used oil, any person who collects used oil from more than one generator and transports the collected oil, and owners and operators of used oil transfer facilities. Used oil transporters may consolidate or aggregate loads of used oil for purposes of transportation but, with the following exception, may not process used oil. Transporters may conduct incidental processing operations that occur in the normal course of used oil transportation (e.g., settling and water separation), but that are not designed to produce (or make more amenable for production of) used oil derived products or used oil fuel.

Subpart B—Applicability

§ 279.10 Applicability.

This section identifies those materials which are subject to regulation as used oil under this part. This section also identifies some materials that are not subject to regulation as used oil under this part, and indicates whether these materials may be subject to regulation as hazardous waste under parts 260 through 266, 268, 270, and 124 of this chapter.

(a) *Used oil.* EPA presumes that used oil is to be recycled unless a used oil handler disposes of used oil, or sends used oil for disposal. Except as provided in § 279.11, the regulations of this part apply to used oil, and to materials identified in this section as being subject to regulation as used oil, whether or not the used oil or material exhibits any characteristics of hazardous waste identified in subpart C of part 261 of this chapter.

(b) *Mixtures of used oil and hazardous waste*—(1) *Listed hazardous waste.* (i) Mixtures of used oil and hazardous waste that is listed in subpart D of part 261 of this chapter are subject to regulation as hazardous waste under parts 260 through 266, 268, 270, and 124 of this chapter, rather than as used oil under this part.

(ii) *Rebuttable presumption for used oil.* Used oil containing more than 1,000 ppm total halogens is presumed to be a hazardous waste because it has been mixed with halogenated hazardous waste listed in subpart D of part 261 of this chapter. Persons may rebut this presumption by demonstrating that the used oil does not contain hazardous waste (for example, by using an analytical method from SW–846, Edition III, to show that the used oil does not contain significant concentrations of halogenated hazardous constituents listed in appendix VIII of part 261 of this chapter). EPA Publication SW–846, Third Edition, is available for the cost of $110.00 from the Government Printing Office, Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA 15250–7954, (202) 783–3238 (document number 955–001–00000–1).

(A) The rebuttable presumption does not apply to metalworking oils/fluids containing chlorinated paraffins, if they are processed, through a tolling arrangement as described in § 279.24(c), to reclaim metalworking oils/fluids. The presumption does apply to metalworking oils/fluids if such oils/fluids are recycled in any other manner, or disposed.

(B) The rebuttable presumption does not apply to used oils contaminated with chlorofluorocarbons (CFCs) removed from refrigeration units where the CFCs are destined for reclamation. The rebuttable presumption does apply to used oils contaminated with CFCs that have been mixed with used oil from sources other than refrigeration units.

(2) *Characteristic hazardous waste.* Mixtures of used oil and hazardous waste that exhibits a hazardous waste characteristic identified in subpart C of part 261 of this chapter are subject to:

(i) Except as provided in paragraph (b)(2)(iii) of this section, regulation as hazardous waste under parts 260 through 266, 268, 270, and 124 of this chapter rather than as used oil under this part, if the resultant mixture exhibits any characteristics of hazardous waste identified in subpart C of part 261 of this chapter.

(ii) Regulation as used oil under this part, if the resultant mixture does not exhibit any characteristics of hazardous waste identified under subpart C of part 261 of this chapter.

(iii) Regulation as used oil under this part, if the mixture is of used oil and a waste which is hazardous solely because it exhibits the characteristic of ignitability and is not listed in subpart D of part 261 of this chapter (e.g., mineral spirits), provided that the mixture does not exhibit the characteristic of ignitability under § 261.21 of this chapter.

(3) *Conditionally exempt small quantity generator hazardous waste.* Mixtures of used oil and conditionally exempt small quantity generator hazardous waste regulated under § 261.5 of this chapter are subject to regulation as used oil under this part.

(c) *Mixtures of used oil with non-hazardous solid wastes.* Mixtures of used oil and non-hazardous solid waste are subject to regulation as used oil under this part.

(d) *Mixtures of used oil with products.* (1) Except as provided in paragraph (d)(2) of this section, mixtures of used oil and fuels or other products are subject to regulation as used oil under this part.

(2) Mixtures of used oil and diesel fuel mixed on-site by the generator of the used oil for use in the generator's own vehicles are not subject to this part once the used oil and diesel fuel have been mixed. Prior to mixing, the used oil is subject to the requirements of subpart C of this part.

(e) *Materials derived from used oil.* (1) Materials that are reclaimed from used oil that are used beneficially and are not burned for energy recovery or used in a manner constituting disposal (e.g., re-refined lubricants) are:

(i) Not used oil and thus are not subject to this part, and

(ii) Not solid wastes and are thus not subject to the hazardous waste regulations of parts 260 through 266, 268, 270, and 124 of this chapter as provided in § 261.3(c)(2)(i) of this chapter.

(2) Materials produced from used oil that are burned for energy recovery (e.g., used oil fuels) are subject to regulation as used oil under this part.

(3) Except as provided in paragraph (e)(4) of this section, materials derived from used oil that are disposed of or used in a manner constituting disposal are:

(i) Not used oil and thus are not subject to this Part, and

(ii) Are solid wastes and thus are subject to the hazardous waste regulations of parts 260 through 266, 268, 270, and 124 of this chapter if the materials are identified as hazardous waste.

(4) Re-refining distillation bottoms that are used as feedstock to manufacture asphalt products are:

(i) Not subject to this part at this time, and

(ii) Not subject to the hazardous waste regulations of parts 260 through 266, 268, 270, and 124 of this chapter at this time.

(f) *Wastewater.* Wastewater, the discharge of which is subject to regulation under either section 402 or section 307(b) of the Clean Water Act (including wastewaters at facilities which have eliminated the discharge of wastewater), contaminated with *de minimis* quantities of used oil are not subject to the requirements of this part. For purposes of this paragraph, *"de minimis"* quantities of used oils are defined as small spills, leaks, or drippings from pumps, machinery, pipes, and other similar equipment during normal operations or small amounts of oil lost to the wastewater treatment system during washing or draining operations. This exception will not apply if the used oil is discarded as a result of abnormal manufacturing operations resulting in substantial leaks, spills, or other releases, or to used oil recovered from wastewaters.

(g) *Used oil introduced into crude oil or natural gas pipelines.* Used oil that is placed directly into a crude oil or natural gas pipeline is subject to the management standards of this part only prior to the point of introduction to the pipeline. Once the used oil is introduced to the pipeline, the material is exempt from the requirements of this part.

(h) *Used oil on vessels.* Used oil produced on vessels from normal shipboard operations is not subject to this part until it is transported ashore.

(i) *PCB contaminated used oil.* PCB containing used oil regulated under part 761 of this chapter is exempt from regulation under this part.

§ 279.11 Used oil specifications.

Used oil burned for energy recovery, and any fuel produced from used oil by processing, blending, or other treatment, is subject to regulation under this part unless it is shown not to exceed any of the allowable levels of the constituents and properties in the specification shown in Table 1. Once used oil that is to be burned for energy recovery has

been shown not to exceed any specification and the person making that showing complies with §§ 279.72, 279.73, and 279.74(b), the used oil is no longer subject to this part.

TABLE 1—USED OIL NOT EXCEEDING ANY SPECIFICATION LEVEL IS NOT SUBJECT TO THIS PART WHEN BURNED FOR ENERGY RECOVERY [1]

Constituent/property	Allowable level
Arsenic	5 ppm maximum.
Cadmium	2 ppm maximum.
Chromium	10 ppm maximum.
Lead	100 ppm maximum.
Flash point	100 °F minimum.
Total halogens	4,000 ppm maximum. [2]

[1] The specification does not apply to mixtures of used oil and hazardous waste that continue to be regulated as hazardous waste (see § 279.10(b)).

[2] Used oil containing more than 1,000 ppm total halogens is presumed to be a hazardous waste under the rebuttable presumption provided under § 279.10(b)(1). Such used oil is subject to subpart H of part 266 of this chapter rather than this part when burned for energy recovery unless the presumption of mixing can be successfully rebutted.

§ 279.12 Prohibitions.

(a) *Surface impoundment prohibition.* Used oil shall not be managed in surface impoundments or waste piles unless the units are subject to regulation under parts 264 or 265 of this chapter.

(b) *Use as a dust suppressant.* The use of used oil as a dust suppressant is prohibited, except when such activity takes place in one of the states listed in § 279.82(c).

(c) *Burning in particular units.* Off-specification used oil fuel may be burned for energy recovery in only the following devices:

(1) Industrial furnaces identified in § 260.10 of this chapter;

(2) Boilers, as defined in § 260.10 of this chapter, that are identified as follows:

(i) Industrial boilers located on the site of a facility engaged in a manufacturing process where substances are transformed into new products, including the component parts of products, by mechanical or chemical processes;

(ii) Utility boilers used to produce electric power, steam, heated or cooled air, or other gases or fluids for sale; or

(iii) Used oil-fired space heaters provided that the burner meets the provisions of § 279.23.

Subpart C—Standards for Used Oil Generators

§ 279.20 Applicability.

(a) *General.* Except as provided in paragraphs (a)(1) through (a)(4) of this section, this subpart applies to all used oil generators. A used oil generator is any person, by site, whose act or process produces used oil or whose act first causes used oil to become subject to regulation.

(1) *Household "do-it-yourselfer" used oil generators.* Household "do-it-yourselfer" used oil generators are not subject to regulation under this part.

(2) *Vessels.* Vessels at sea or at port are not subject to this subpart. For purposes of this subpart, used oil produced on vessels from normal shipboard operations is considered to be generated at the time it is transported ashore. The owner or operator of the vessel and the person(s) removing or accepting used oil from the vessel are co-generators of the used oil and are both responsible for managing the waste in compliance with this subpart once the used oil is transported ashore. The co-generenerators may decide among them which party will fulfill the requirements of this subpart.

(3) *Diesel fuel.* Mixtures of used oil and diesel fuel mixed by the generator of the used oil for use in the generator's own vehicles are not subject to this part once the used oil and diesel fuel have been mixed. Prior to mixing, the used oil fuel is subject to the requirements of this subpart.

(4) *Farmers.* Farmers who generate an average of 25 gallons per month or less of used oil from vehicles or machinery used on the farm in a calendar year are not subject to the requirements of this part.

(b) *Other applicable provisions.* Used oil generators who conduct the following activities are subject to the requirements of other applicable provisions of this part as indicated in paragraphs (b)(1) through (5) of this section:

(1) Generators who transport used oil, except under the self-transport provisions of § 279.24 (a) and (b), must also comply with subpart E of this part.

(2) Generators who process or re-refine used oil must also comply with subpart F of this part.

(3) Generators who burn off-specification used oil for energy recovery, except under the on-site space heater provisions of § 279.23, must also comply with subpart G of this part.

(4) Generators who direct shipments of off-specification used oil from their facility to a used oil burner or first claim that used oil that is to be burned for energy recovery meets the used oil fuel specifications set forth in § 279.11 must also comply with subpart H of this part.

(5) Generators who dispose of used oil, including the use of used oil as a dust suppressant, must also comply with subpart I of this part.

§ 279.21 Hazardous waste mixing.

(a) Generators shall not mix hazardous waste with used oil except as provided in § 279.10(b)(2) (ii) and (iii).

(b) The rebuttable presumption for used oil of § 279.10(b)(1)(ii) applies to used oil managed by generators. Under the rebuttable presumption for used oil of § 279.10(b)(1)(ii), used oil containing greater than 1,000 ppm total halogens is presumed to be a hazardous waste and thus must be managed as hazardous waste and not as used oil unless the presumption is rebutted. However, the rebuttable presumption does not apply to certain metalworking oils/fluids and certain used oils removed from refrigeration units.

§ 279.22 Used oil storage.

As specified in § 279.10(f), wastewaters containing "de minimis" quantities of used oil are not subject to the requirements of this part, including the prohibition on storage in units other than tanks or containers. Used oil generators are subject to all applicable Spill Prevention, Control and Countermeasures (40 CFR part 112) in addition to the requirements of this Subpart. Used oil generators are also subject to the Underground Storage Tank (40 CFR part 280) standards for used oil stored in underground tanks whether or not the used oil exhibits any characteristics of hazardous waste, in addition to the requirements of this subpart.

(a) *Storage units.* Used oil generators shall not store used oil in units other than tanks, containers, or units subject to regulation under parts 264 or 265 of this chapter.

(b) *Condition of units.* Containers and aboveground tanks used to store used oil at generator facilities must be:

(1) In good condition (no severe rusting, apparent structural defects or deterioration); and

(2) Not leaking (no visible leaks).

(c) *Labels.* (1) Containers and aboveground tanks used to store used oil at generator facilities must be labeled or marked clearly with the words "Used Oil."

(2) Fill pipes used to transfer used oil into underground storage tanks at generator facilities must be labeled or marked clearly with the words "Used Oil."

(d) *Response to releases.* Upon detection of a release of used oil to the environment not subject to the requirements of part 280, subpart F of this chapter which has occurred after the effective date of the authorized used oil program for the State in which the

release is located, a generator must perform the following cleanup steps:

(1) Stop the release;

(2) Contain the released used oil;

(3) Clean up and manage properly the released used oil and other materials; and

(4) If necessary to prevent future releases, repair or replace any leaking used oil storage containers or tanks prior to returning them to service.

§ 279.23 On-site burning in space heaters.

(a) Generators may burn used oil in used oil-fired space heaters provided that:

(1) The heater burns only used oil that the owner or operator generates or used oil received from household do-it-yourself used oil generators;

(2) The heater is designed to have a maximum capacity of not more than 0.5 million Btu per hour; and

(3) The combustion gases from the heater are vented to the ambient air.

(b) (Reserved)

§ 279.24 Off-site shipments.

Except as provided in paragraphs (a) through (c) of this section, generators must ensure that their used oil is transported only by transporters who have obtained EPA identification numbers.

(a) *Self-transportation of small amounts to approved collection centers.* Generators may transport, without an EPA identification number, used oil that is generated at the generator's site and used oil collected from household do-it-yourselfers to a used oil collection center provided that:

(1) The generator transports the used oil in a vehicle owned by the generator or owned by an employee of the generator;

(2) The generator transports no more than 55 gallons of used oil at any time; and

(3) The generator transports the used oil to a used oil collection center that is registered, licensed, permitted, or recognized by a state/county/municipal government to manage used oil.

(b) *Self-transportation of small amounts to aggregation points owned by the generator.* Generators may transport, without an EPA identification number, used oil that is generated at the generator's site to an aggregation point provided that:

(1) The generator transports the used oil in a vehicle owned by the generator or owned by an employee of the generator;

(2) The generator transports no more than 55 gallons of used oil at any time; and

(3) The generator transports the used oil to an aggregation point that is owned and/or operated by the same generator.

(c) *Tolling arrangements.* Used oil generators may arrange for used oil to be transported by a transporter without an EPA identification number if the used oil is reclaimed under a contractual agreement pursuant to which reclaimed oil is returned by the processor/re-refiner to the generator for use as a lubricant, cutting oil, or coolant. The contract (known as a "tolling arrangement") must indicate:

(1) The type of used oil and the frequency of shipments;

(2) That the vehicle used to transport the used oil to the processing/re-refining facility and to deliver recycled used oil back to the generator is owned and operated by the used oil processor/re-refiner; and

(3) That reclaimed oil will be returned to the generator.

Subpart D—Standards for Used Oil Collection Centers and Aggregation Points

§ 279.30 Do-it-yourselfer used oil collection centers.

(a) *Applicability.* This section applies to owners or operators of all do-it-yourselfer (DIY) used oil collection centers. A DIY used oil collection center is any site or facility that accepts/aggregates and stores used oil collected only from household do-it-yourselfers.

(b) *DIY used oil collection center requirements.* Owners or operators of all DIY used oil collection centers must comply with the generator standards in subpart C of this part.

§ 279.31 Used oil collection centers.

(a) *Applicability.* This section applies to owners or operators of used oil collection centers. A used oil collection center is any site or facility that accepts/aggregates and stores used oil collected from used oil generators regulated under subpart C of this part who bring used oil to the collection center in shipments of no more than 55 gallons under the provisions of § 279.24(a). Used oil collection centers may also accept used oil from household do-it-yourselfers.

(b) *Used oil collection center requirements.* Owners or operators of all used oil collection centers must:

(1) Comply with the generator standards in subpart C of this part; and

(2) Be registered/licensed/permitted/recognized by a state/county/municipal government to manage used oil.

§ 279.32 Used oil aggregation points owned by the generator.

(a) *Applicability.* This section applies to owners or operators of all used oil aggregation points. A used oil aggregation point is any site or facility that accepts, aggregates, and/or stores used oil collected only from other used oil generation sites owned or operated by the owner or operator of the aggregation point, from which used oil is transported to the aggregation point in shipments of no more than 55 gallons under the provisions of § 279.24(b). Used oil aggregation points may also accept used oil from household do-it-yourselfers.

(b) *Used oil aggregation point requirements.* Owners or operators of all used oil aggregation points must comply with the generator standards in subpart C of this part.

Subpart E—Standards for Used Oil Transporter and Transfer Facilities

§ 279.40 Applicability.

(a) *General.* Except as provided in paragraphs (a)(1) through (a)(4) of this section, this subpart applies to all used oil transporters. Used oil transporters are persons who transport used oil, persons who collect used oil from more than one generator and transport the collected oil, and owners and operators of used oil transfer facilities.

(1) This subpart does not apply to on-site transportation.

(2) This subpart does not apply to generators who transport shipments of used oil totalling 55 gallons or less from the generator to a used oil collection center as specified in § 279.24(a).

(3) This subpart does not apply to generators who transport shipments of used oil totalling 55 gallons or less from the generator to a used oil aggregation point owned or operated by the same generator as specified in § 279.24(b).

(4) This subpart does not apply to transportation of used oil generated by household do-it-yourselfers from the initial generator to a regulated used oil generator, collection center, aggregation point, processor/re-refiner, or burner subject to the requirements of this part. Except as provided in paragraphs (a)(1) through (a)(3) of this section, this subpart does, however, apply to transportation of collected household do-it-yourselfer used oil from regulated used oil generators, collection centers, aggregation points, or other facilities where household do-it-yourselfer used oil is collected.

(b) *Imports and exports.* Transporters who import used oil from abroad or export used oil outside of the United

States are subject to the requirements of this subpart from the time the used oil enters and until the time it exits the United States.

(c) *Trucks used to transport hazardous waste.* Unless trucks previously used to transport hazardous waste are emptied as described in § 261.7 of this chapter prior to transporting used oil, the used oil is considered to have been mixed with the hazardous waste and must be managed as hazardous waste unless, under the provisions of § 279.10(b), the hazardous waste/used oil mixture is determined not to be hazardous waste.

(d) *Other applicable provisions.* Used oil transporters who conduct the following activities are also subject to other applicable provisions of this part as indicated in paragraphs (d)(1) through (5) of this section:

(1) Transporters who generate used oil must also comply with subpart C of this part;

(2) Transporters who process or re-refine used oil, except as provided in § 279.41, must also comply with subpart F of this part;

(3) Transporters who burn off-specification used oil for energy recovery must also comply with subpart G of this part;

(4) Transporters who direct shipments of off-specification used oil from their facility to a used oil burner or first claim that used oil that is to be burned for energy recovery meets the used oil fuel specifications set forth in § 279.11 must also comply with subpart H of this partuel Marketers of this part; and

(5) Transporters who dispose of used oil, including the use of used oil as a dust suppressant, must also comply with subpart I of this part.

§ 279.41 Restrictions on transporters who are not also processors or re-refiners.

(a) Used oil transporters may consolidate or aggregate loads of used oil for purposes of transportation. However, except as provided in paragraph (b) of this section, used oil transporters may not process used oil unless they also comply with the requirements for processors/re-refiners in subpart F of this part.

(b) Transporters may conduct incidental processing operations that occur in the normal course of used oil transportation (e.g., settling and water separation), but that are not designed to produce (or make more amenable for production of) used oil derived products unless they also comply with the processor/re-refiner requirements in subpart F of this part.

§ 279.42 Notification.

(a) *Identification numbers.* Used oil transporters who have not previously complied with the notification requirements of RCRA section 3010 must comply with these requirements and obtain an EPA identification number.

(b) *Mechanics of notification.* A used oil transporter who has not received an EPA identification number may obtain one by notifying the Regional Administrator of their used oil activity by submitting either:

(1) A completed EPA Form 8700–12 (To obtain EPA Form 8700–12 call RCRA/Superfund Hotline at 1–800–424–9346 or 703–920–9810); or

(2) A letter requesting an EPA identification number.

Call RCRA/Superfund Hotline to determine where to send a letter requesting an EPA identification number. The letter should include the following information:

(i) Transporter company name;

(ii) Owner of the transporter company;

(iii) Mailing address for the transporter;

(iv) Name and telephone number for the transporter point of contact;

(v) Type of transport activity (i.e., transport only, transport and transfer facility, transfer facility only);

(vi) Location of all transfer facilities at which used oil is stored;

(vii) Name and telephone number for a contact at each transfer facility.

§ 279.43 Used oil transportation.

(a) *Deliveries.* A used oil transporter must deliver all used oil received to:

(1) Another used oil transporter, provided that the transporter has obtained an EPA identification number;

(2) A used oil processing/re-refining facility who has obtained an EPA identification number;

(3) An off-specification used oil burner facility who has obtained an EPA identification number; or

(4) An on-specification used oil burner facility.

(b) *Shipping.* Used oil transporters must comply with all applicable packaging, labeling, and placarding requirements of the U.S. Department of Transportation under 49 CFR parts 173, 178 and 179. Used oil that meets the definition of combustible liquid (flash point below 200 °F but at or greater than 100 °F) or flammable liquid (flash point below 100 °F) is subject to Department of Transportation Hazardous Materials Regulations at 49 CFR Parts 100 through 177.

(c) *Used oil discharges.* (1) In the event of a discharge of used oil during transportation, the transporter must take appropriate immediate action to protect human health and the environment (e.g., notify local authorities, dike the discharge area).

(2) If a discharge of used oil occurs during transportation and an official (State or local government or a Federal Agency) acting within the scope of official responsibilities determines that immediate removal of the used oil is necessary to protect human health or the environment, that official may authorize the removal of the used oil by transporters who do not have EPA identification numbers.

(3) An air, rail, highway, or water transporter who has discharged used oil must:

(i) Give notice, if required by 49 CFR 171.15 to the National Response Center (800–424–8802 or 202–426–2675); and

(ii) Report in writing as required by 49 CFR 171.16 to the Director, Office of Hazardous Materials Regulations, Materials Transportation Bureau, Department of Transportation, Washington, DC 20590.

(4) A water transporter who has discharged used oil must give notice as required by 33 CFR 153.203.

(5) A transporter must clean up any used oil discharged that occurs during transportation or take such action as may be required or approved by federal, state, or local officials so that the used oil discharge no longer presents a hazard to human health or the environment.

§ 279.44 Rebuttable presumption for used oil.

(a) To ensure that used oil is not a hazardous waste under the rebuttable presumption of § 279.10(b)(1)(ii), the used oil transporter must determine whether the total halogen content of used oil being transported or stored at a transfer facility is above or below 1,000 ppm.

(b) The transporter must make this determination by:

(1) Testing the used oil; or

(2) Applying knowledge of the halogen content of the used oil in light of the materials or processes used.

(c) If the used oil contains greater than or equal to 1,000 ppm total halogens, it is presumed to be a hazardous waste because it has been mixed with halogenated hazardous waste listed in subpart D of part 261 of this chapter. The owner or operator may rebut the presumption by demonstrating that the used oil does not contain hazardous waste (for example, by using an analytical method from SW–846, Edition III, to show that the used oil does not contain significant concentrations of halogenated hazardous constituents

listed in Appendix VIII of part 261 of this chapter). EPA Publication SW–846, Third Edition, is available for the cost of $110.00 from the Government Printing Office, Superintendent of Documents, PO Box 371954, Pittsburgh, PA 15250–7954, (202) 783–3238 (document number 955–001–00000–1).

(1) The rebuttable presumption does not apply to metalworking oils/fluids containing chlorinated paraffins, if they are processed, through a tolling arrangement as described in § 279.24(c), to reclaim metalworking oils/fluids. The presumption does apply to metalworking oils/fluids if such oils/fluids are recycled in any other manner, or disposed.

(2) The rebuttable presumption does not apply to used oils contaminated with chlorofluorocarbons (CFCs) removed from refrigeration units if the CFC are destined for reclamation. The rebuttable presumption does apply to used oils contaminated with CFCs that have been mixed with used oil from sources other than refrigeration units.

(d) *Record retention.* Records of analyses conducted or information used to comply with paragraphs (a), (b), and (c) of this section must be maintained by the transporter for at least 3 years.

§ 279.45 Used oil storage at transfer facilities.

As specified in § 279.10(f), wastewaters containing "de minimis" quantities of used oil are not subject to the requirements of this part, including the prohibition on storage in units other than tanks or containers. Used oil transporters are subject to all applicable Spill Prevention, Control and Countermeasures (40 CFR part 112) in addition to the requirements of this subpart. Used oil generators are also subject to the Underground Storage Tank (40 CFR part 280) standards for used oil stored in underground tanks whether or not the used oil exhibits any characteristics of hazardous waste, in addition to the requirements of this subpart.

(a) *Applicability.* This section applies to used oil transfer facilities. Used oil transfer facilities are transportation related facilities including loading docks, parking areas, storage areas, and other areas where shipments of used oil are held for more than 24 hours during the normal course of transportation and not longer than 35 days. Transfer facilities that store used oil for more than 35 days are subject to regulation under subpart F of this chapter.

(b) *Storage units.* Owners or operators of used oil transfer facilities may not store used oil in units other than tanks, containers, or units subject to regulation under parts 264 or 265 of this chapter.

(c) *Condition of units.* Containers and aboveground tanks used to store used oil at transfer facilities must be:

(1) In good condition (no severe rusting, apparent structural defects or deterioration); and

(2) Not leaking (no visible leaks).

(d) *Secondary containment for containers.* Containers used to store used oil at transfer facilities must be equipped with a secondary containment system.

(1) The secondary containment system must consist of, at a minimum:

(i) Dikes, berms or retaining walls; and

(ii) A floor. The floor must cover the entire area within the dikes, berms, or retaining walls.

(2) The entire containment system, including walls and floors, must be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.

(e) *Secondary containment for existing aboveground tanks.* Existing aboveground tanks used to store used oil at transfer facilities must be equipped with a secondary containment system.

(1) The secondary containment system must consist of, at a minimum:

(i) Dikes, berms or retaining walls; and

(ii) A floor. The floor must cover the entire area within the dike, berm, or retaining wall except areas where existing portions of the tank meet the ground; or

(iii) An equivalent secondary containment system.

(2) The entire containment system, including walls and floors, must be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.

(f) *Secondary containment for new aboveground tanks.* New aboveground tanks used to store used oil at transfer facilities must be equipped with a secondary containment system.

(1) The secondary containment system must consist of, at a minimum:

(i) Dikes, berms or retaining walls; and

(ii) A floor. The floor must cover the entire area within the dike, berm, or retaining wall; or

(iii) An equivalent secondary containment system.

(2) The entire containment system, including walls and floors, must be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.

(g) *Labels.* (1) Containers and aboveground tanks used to store used oil at transfer facilities must be labeled or marked clearly with the words "Used Oil."

(2) Fill pipes used to transfer used oil into underground storage tanks at transfer facilities must be labeled or marked clearly with the words "Used Oil."

(h) *Response to releases.* Upon detection of a release of used oil to the environment not subject to the requirements of part 280 subpart F which has occurred after the effective date of the authorized used oil program for the State in which the release is located, the owner/operator of a transfer facility must perform the following cleanup steps:

(1) Stop the release;

(2) Contain the release used oil;

(3) Clean up and manage properly the released used oil and other materials; and

(4) If necessary, repair or replace any leaking used oil storage containers or tanks prior to returning them to service.

§ 279.46 Tracking.

(a) *Acceptance.* Used oil transporters must keep a record of each used oil shipment accepted for transport. Records for each shipment must include:

(1) The name and address of the generator, transporter, or processor/re-refiner who provided the used oil for transport;

(2) The EPA identification number (if applicable) of the generator, transporter, or processor/re-refiner who provided the used oil for transport;

(3) The quantity of used oil accepted;

(4) The date of acceptance; and

(5) The signature, dated upon receipt of the used oil, of a representative of the generator, transporter, or processor/re-refiner who provided the used oil for transport.

(b) *Deliveries.* Used oil transporters must keep a record of each shipment of used oil that is delivered to another used oil transporter, or to a used oil burner, processor/re-refiner, or disposal facility. Records of each delivery must include:

(1) The name and address of the receiving facility or transporter;

(2) The EPA identification number of the receiving facility or transporter;

(3) The quantity of used oil delivered;

(4) The date of delivery;

(5) The signature, dated upon receipt of the used oil, of a representative of the receiving facility or transporter.

(c) *Exports of used oil.* Used oil transporters must maintain the records described in paragraphs (b)(1) through (b)(4) of this section for each shipment of used oil exported to any foreign country.

(d) *Record retention.* The records described in paragraphs (a), (b), and (c) of this section must be maintained for at least three years.

§ 279.47 Management of residues.

Transporters who generate residues from the storage or transport of used oil must manage the residues as specified in § 279.10(e).

Subpart F—Standards for Used Oil Processors and Re-Refiners

§ 279.50 Applicability.

(a) The requirements of this subpart apply to owners and operators of facilities that process used oil. Processing means chemical or physical operations designed to produce from used oil, or to make used oil more amenable for production of, fuel oils, lubricants, or other used oil-derived products. Processing includes, but is not limited to: blending used oil with virgin petroleum products, blending used oils to meet the fuel specification, filtration, simple distillation, chemical or physical separation and re-refining. The requirements of this subpart do not apply to:

(1) Transporters that conduct incidental processing operations that occur during the normal course of transportation as provided in § 279.41; or

(2) Burners that conduct incidental processing operations that occur during the normal course of used oil management prior to burning as provided in § 279.61(b).

(b) *Other applicable provisions.* Used oil processors/re-refiners who conduct the following activities are also subject to the requirements of other applicable provisions of this part as indicated in paragraphs (b)(1) through (b)(5) of this section.

(1) Processors/re-refiners who generate used oil must also comply with subpart C of this part;

(2) Processors/re-refiners who transport used oil must also comply with subpart E of this part;

(3) Except as provided in paragraphs (b)(3)(i) and (b)(3)(ii) of this section, processors/re-refiners who burn off-specification used oil for energy recovery must also comply with subpart G of this part. Processor/re-refiners burning used oil for energy recovery under the following conditions are not subject to subpart G of this part:

(i) The used oil is burned in an on-site space heater that meets the requirements of § 279.23; or

(ii) The used oil is burned for purposes of processing used oil, which is considered burning incidentally to used oil processing;

(4) Processors/re-refiners who direct shipments of off-specification used oil from their facility to a used oil burner or first claim that used oil that is to be burned for energy recovery meets the used oil fuel specifications set forth in § 279.11 must also comply with subpart H of this part; and

(5) Processors/re-refiners who dispose of used oil, including the use of used oil as a dust suppressant, also must comply with subpart I of this part.

§ 279.51 Notification.

(a) *Identification numbers.* Used oil processors and re-refiners who have not previously complied with the notification requirements of RCRA section 3010 must comply with these requirements and obtain an EPA identification number.

(b) *Mechanics of notification.* A used oil processor or re-refiner who has not received an EPA identification number may obtain one by notifying the Regional Administrator of their used oil activity by submitting either:

(1) A completed EPA Form 8700-12 (To obtain EPA Form 8700-12 call RCRA/Superfund Hotline at 1-800-424-9346 or 703-920-9810); or

(2) A letter requesting an EPA identification number.

Call RCRA/Superfund Hotline to determine where to send a letter requesting an EPA identification number. The letter should include the following information:

(i) Processor or re-refiner company name;

(ii) Owner of the processor or re-refiner company;

(iii) Mailing address for the processor or re-refiner;

(iv) Name and telephone number for the processor or re-refiner point of contact;

(v) Type of used oil activity (i.e., process only, process and re-refine);

(vi) Location of the processor or re-refiner facility.

§ 279.52 General facility standards.

(a) *Preparedness and prevention.* Owners and operators of used oil processors and re-refiners facilities must comply with the following requirements:

(1) *Maintenance and operation of facility.* Facilities must be maintained and operated to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of used oil to air, soil, or surface water which could threaten human health or the environment.

(2) *Required equipment.* All facilities must be equipped with the following, unless none of the hazards posed by used oil handled at the facility could require a particular kind of equipment specified in paragraphs (a)(2)(i) through (iv) of this section:

(i) An internal communications or alarm system capable of providing immediate emergency instruction (voice or signal) to facility personnel;

(ii) A device, such as a telephone (immediately available at the scene of operations) or a hand-held two-way radio, capable of summoning emergency assistance from local police departments, fire departments, or State or local emergency response teams;

(iii) Portable fire extinguishers, fire control equipment (including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals), spill control equipment and decontamination equipment; and

(iv) Water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or automatic sprinklers, or water spray systems.

(3) *Testing and maintenance of equipment.* All facility communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment, where required, must be tested and maintained as necessary to assure its proper operation in time of emergency.

(4) *Access to communications or alarm system.* (i) Whenever used oil is being poured, mixed, spread, or otherwise handled, all personnel involved in the operation must have immediate access to an internal alarm or emergency communication device, either directly or through visual or voice contact with another employee, unless such a device is not required in paragraph (a)(2) of this section.

(ii) If there is ever just one employee on the premises while the facility is operating, the employee must have immediate access to a device, such as a telephone (immediately available at the scene of operation) or a hand-held two-way radio, capable of summoning external emergency assistance, unless such a device is not required in paragraph (a)(2) of this section.

(5) *Required aisle space.* The owner or operator must maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation in an emergency.

unless aisle space is not needed for any of these purposes.

(6) *Arrangements with local authorities.* (i) The owner or operator must attempt to make the following arrangements, as appropriate for the type of used oil handled at the facility and the potential need for the services of these organizations:

(A) Arrangements to familiarize police, fire departments, and emergency response teams with the layout of the facility, properties of used oil handled at the facility and associated hazards, places where facility personnel would normally be working, entrances to roads inside the facility, and possible evacuation routes;

(B) Where more than one police and fire department might respond to an emergency, agreements designating primary emergency authority to a specific police and a specific fire department, and agreements with any others to provide support to the primary emergency authority;

(C) Agreements with State emergency response teams, emergency response contractors, and equipment suppliers; and

(D) Arrangements to familiarize local hospitals with the properties of used oil handled at the facility and the types of injuries or illnesses which could result from fires, explosions, or releases at the facility.

(ii) Where State or local authorities decline to enter into such arrangements, the owner or operator must document the refusal in the operating record.

(b) *Contingency plan and emergency procedures.* Owners and operators of used oil processors and re-refiners facilities must comply with the following requirements:

(1) *Purpose and implementation of contingency plan.* (i) Each owner or operator must have a contingency plan for the facility. The contingency plan must be designed to minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or non-sudden release of used oil to air, soil, or surface water.

(ii) The provisions of the plan must be carried out immediately whenever there is a fire, explosion, or release of used oil which could threaten human health or the environment.

(2) *Content of contingency plan.* (i) The contingency plan must describe the actions facility personnel must take to comply with paragraphs (b) (1) and (6) of this section in response to fires, explosions, or any unplanned sudden or non-sudden release of used oil to air, soil, or surface water at the facility.

(ii) If the owner or operator has already prepared a Spill Prevention, Control, and Countermeasures (SPCC) Plan in accordance with part 112 of this chapter, or part 1510 of chapter V of this title, or some other emergency or contingency plan, the owner or operator need only amend that plan to incorporate used oil management provisions that are sufficient to comply with the requirements of this part.

(iii) The plan must describe arrangements agreed to by local police departments, fire departments, hospitals, contractors, and State and local emergency response teams to coordinate emergency services, pursuant to paragraph (a)(6) of this section.

(iv) The plan must list names, addresses, and phone numbers (office and home) of all persons qualified to act as emergency coordinator (see paragraph (b)(5) of this section), and this list must be kept up to date. Where more than one person is listed, one must be named as primary emergency coordinator and others must be listed in the order in which they will assume responsibility as alternates.

(v) The plan must include a list of all emergency equipment at the facility (such as fire extinguishing systems, spill control equipment, communications and alarm systems (internal and external), and decontamination equipment), where this equipment is required. This list must be kept up to date. In addition, the plan must include the location and a physical description of each item on the list, and a brief outline of its capabilities.

(vi) The plan must include an evacuation plan for facility personnel where there is a possibility that evacuation could be necessary. This plan must describe signal(s) to be used to begin evacuation, evacuation routes, and alternate evacuation routes (in cases where the primary routes could be blocked by releases of used oil or fires).

(3) *Copies of contingency plan.* A copy of the contingency plan and all revisions to the plan must be:

(i) Maintained at the facility; and

(ii) Submitted to all local police departments, fire departments, hospitals, and State and local emergency response teams that may be called upon to provide emergency services.

(4) *Amendment of contingency plan.* The contingency plan must be reviewed, and immediately amended, if necessary, whenever:

(i) Applicable regulations are revised;

(ii) The plan fails in an emergency;

(iii) The facility changes—in its design, construction, operation, maintenance, or other circumstances—in a way that materially increases the potential for fires, explosions, or releases of used oil, or changes the response necessary in an emergency;

(iv) The list of emergency coordinators changes; or

(v) The list of emergency equipment changes.

(5) *Emergency coordinator.* At all times, there must be at least one employee either on the facility premises or on call (i.e., available to respond to an emergency by reaching the facility within a short period of time) with the responsibility for coordinating all emergency response measures. This emergency coordinator must be thoroughly familiar with all aspects of the facility's contingency plan, all operations and activities at the facility, the location and characteristic of used oil handled, the location of all records within the facility, and facility layout. In addition, this person must have the authority to commit the resources needed to carry out the contingency plan.

Guidance: The emergency coordinator's responsibilities are more fully spelled out in paragraph (b)(6) of this section. Applicable responsibilities for the emergency coordinator vary, depending on factors such as type and variety of used oil handled by the facility, and type and complexity of the facility.

(6) *Emergency procedures.* (i) Whenever there is an imminent or actual emergency situation, the emergency coordinator (or the desig[nee] when the emergency coordinator is on call) must immediately:

(A) Activate internal facility alarms or communication systems, where applicable, to notify all facility personnel; and

(B) Notify appropriate State or local agencies with designated response role if their help is needed.

(ii) Whenever there is a release, fire, or explosion, the emergency coordinator must immediately identify the character, exact source, amount, and a real extent of any released materials. He may do this by observation or review of facility records of manifests and, if necessary, by chemical analysis.

(iii) Concurrently, the emergency coordinator must assess possible hazards to human health or the environment that may result from the release, fire, or explosion. This assessment must consider both direct and indirect effects of the release, fire, or explosion (e.g., the effects of any toxic, irritating, or asphyxiating gases that are generated, or the effects of any hazardous surface water run-offs from water of chemical agents used to contr[ol] fire and heat-induced explosions).

(iv) If the emergency coordinator determines that the facility has had a release, fire, or explosion which could threaten human health, or the environment, outside the facility, he must report his findings as follows:

(A) If his assessment indicated that evacuation of local areas may be advisable, he must immediately notify appropriate local authorities. He must be available to help appropriate officials decide whether local areas should be evacuated; and

(B) He must immediately notify either the government official designated as the on-scene coordinator for the geographical area (in the applicable regional contingency plan under part 1510 of this title), or the National Response Center (using their 24-hour toll free number 800/424-8802). The report must include:

(1) Name and telephone number of reporter;

(2) Name and address of facility;

(3) Time and type of incident (e.g., release, fire);

(4) Name and quantity of material(s) involved, to the extent known;

(5) The extent of injuries, if any; and

(6) The possible hazards to human health, or the environment, outside the facility.

(v) During an emergency, the emergency coordinator must take all reasonable measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other used oil or hazardous waste at the facility. These measures must include, where applicable, stopping processes and operation, collecting and containing released used oil, and removing or isolating containers.

(vi) If the facility stops operation in response to a fire, explosion, or release, the emergency coordinator must monitor for leaks, pressure buildup, gas generation, or ruptures in valves, pipes, or other equipment, wherever this is appropriate.

(vii) Immediately after an emergency, the emergency coordinator must provide for recycling, storing, or disposing of recovered used oil, contaminated soil or surface water, or any other material that results from a release, fire, or explosion at the facility.

(viii) The emergency coordinator must ensure that, in the affected area(s) of the facility:

(A) No waste or used oil that may be incompatible with the released material is recycled, treated, stored, or disposed of until cleanup procedures are completed; and

(B) All emergency equipment listed in the contingency plan is cleaned and fit for its intended use before operations are resumed.

(C) The owner or operator must notify the Regional Administrator, and appropriate State and local authorities that the facility is in compliance with paragraph (h) of this section before operations are resumed in the affected area(s) of the facility.

(ix) The owner or operator must note in the operating record the time, date and details of any incident that requires implementing the contingency plan. Within 15 days after the incident, he must submit a written report on the incident to the Regional Administrator. The report must include:

(A) Name, address, and telephone number of the owner or operator;

(B) Name, address, and telephone number of the facility;

(C) Date, time, and type of incident (e.g., fire, explosion);

(D) Name and quantity of material(s) involved;

(E) The extent of injuries, if any;

(F) An assessment of actual or potential hazards to human health or the environment, where this is applicable;

(G) Estimated quantity and disposition of recovered material that resulted from the incident.

§ 279.53 Rebuttable presumption for used oil.

(a) To ensure that used oil managed at a processing/re-refining facility is not hazardous waste under the rebuttable presumption of § 279.10(b)(1)(ii), the owner or operator of a used oil processing/re-refining facility must determine whether the total halogen content of used oil managed at the facility is above or below 1,000 ppm.

(b) The owner or operator must make this determination by:

(1) Testing the used oil; or

(2) Applying knowledge of the halogen content of the used oil in light of the materials or processes used.

(c) If the used oil contains greater than or equal to 1,000 ppm total halogens, it is presumed to be a hazardous waste because it has been mixed with halogenated hazardous waste listed in subpart D of part 261 of this chapter. The owner or operator may rebut the presumption by demonstrating that the used oil does not contain hazardous waste (for example, by using an analytical method from SW-846, Edition III, to show that the used oil does not contain significant concentrations of halogenated hazardous constituents listed in appendix VIII of part 261 of this chapter). EPA Publication SW-846, Third Edition, is available for the cost of $110.00 from the Government Printing Office, Superintendent of Documents, P.O. Box 371954, Pittsburgh PA 15250-7954, (202) 783-3238 (document number 955-001-00000-1).

(1) The rebuttable presumption does not apply to metalworking oils/fluids containing chlorinated paraffins, if they are processed, through a tolling agreement, to reclaim metalworking oils/fluids. The presumption does apply to metalworking oils/fluids if such oils/fluids are recycled in any other manner, or disposed.

(2) The rebuttable presumption does not apply to used oils contaminated with chlorofluorocarbons (CFCs) removed from refrigeration units where the CFCs are destined for reclamation. The rebuttable presumption does apply to used oils contaminated with CFCs that have been mixed with used oil from sources other than refrigeration units.

§ 279.54 Used oil management.

As specified in § 279.10(f), wastewaters containing "de minimis" quantities of used oil are not subject to the requirements of this part, including the prohibition on storage in units other than tanks or containers. Used oil processor/re-refiners are subject to all applicable Spill Prevention, Control and Countermeasures (40 CFR part 112) in addition to the requirements of this subpart. Used oil generators are also subject to the Underground Storage Tank (40 CFR part 280) standards for used oil stored in underground tanks whether or not the used oil exhibits any characteristics of hazardous waste, in addition to the requirements of this subpart.

(a) *Management units.* Used oil processors/re-refiners may not store or process used oil in units other than tanks, containers, or units subject to regulation under part 264 or 265 of this chapter.

(b) *Condition of units.* Containers and aboveground tanks used to store or process used oil at processing and re-refining facilities must be:

(1) In good condition (no severe rusting, apparent structural defects or deterioration); and

(2) Not leaking (no visible leaks).

(c) *Secondary containment for containers.* Containers used to store or process used oil at processing and re-refining facilities must be equipped with a secondary containment system.

(1) The secondary containment system must consist of, at a minimum:

(i) Dikes, berms or retaining walls; and

(ii) A floor. The floor must cover the entire area within the dike, berm, or retaining wall.

(2) The entire containment system, including walls and floor, must be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.

(d) *Secondary containment for existing aboveground tanks.* Existing aboveground tanks used to store or process used oil at processing and re-refining facilities must be equipped with a secondary containment system.

(1) The secondary containment system must consist of, at a minimum:

(i) Dikes, berms or retaining walls; and

(ii) A floor. The floor must cover the entire area within the dike, berm, or retaining wall except areas where existing portions of the tank meet the ground; or

(iii) An equivalent secondary containment system.

(2) The entire containment system, including walls and floor, must be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.

(e) *Secondary containment for new aboveground tanks.* New aboveground tanks used to store or process used oil at processing and re-refining facilities must be equipped with a secondary containment system.

(1) The secondary containment system must consist of, at a minimum:

(i) Dikes, berms or retaining walls; and

(ii) A floor. The floor must cover the entire area within the dike, berm, or retaining wall; or

(iii) An equivalent secondary containment system.

(2) The entire containment system, including walls and floor, must be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.

(f) *Labels.* (1) Containers and aboveground tanks used to store or process used oil at processing and re-refining facilities must be labeled or marked clearly with the words "Used Oil."

(2) Fill pipes used to transfer used oil into underground storage tanks at processing and re-refining facilities must be labeled or marked clearly with the words "Used Oil."

(g) *Response to releases.* Upon detection of a release of used oil to the environment not subject to the requirements of part 280, subpart F of this chapter which has occurred after the effective date of the authorized used oil program for the State in which the release is located, an owner/operator must perform the following cleanup steps:

(1) Stop the release;

(2) Contain the released used oil;

(3) Clean up and mange properly the released used oil and other materials; and

(4) If necessary, repair or replace any leaking used oil storage containers or tanks prior to returning them to service.

(h) *Closure.*—(1) *Aboveground tanks.* Owners and operators who store or process used oil in aboveground tanks must comply with the following requirements:

(i) At closure of a tank system, the owner or operator must remove or decontaminate used oil residues in tanks, contaminated containment system components, contaminated soils, and structures and equipment contaminated with used oil, and manage them as hazardous waste, unless the materials are not hazardous waste under this chapter.

(ii) If the owner or operator demonstrates that not all contaminated soils can be practicably removed or decontaminated as required in paragraph (h)(1)(i) of this section, then the owner or operator must close the tank system and perform post-closure care in accordance with the closure and post-closure care requirements that apply to hazardous waste landfills (§ 265.310 of this chapter).

(2) *Containers.* Owners and operators who store used oil in containers must comply with the following requirements:

(i) At closure, containers holding used oils or residues of used oil must be removed from the site;

(ii) The owner or operator must remove or decontaminate used oil residues, contaminated containment system components, contaminated soils, and structures and equipment contaminated with used oil, and manage them as hazardous waste, unless the materials are not hazardous waste under part 261 of this chapter.

§ 279.55 Analysis plan.

Owners or operators of used oil processing and re-refining facilities must develop and follow a written analysis plan describing the procedures that will be used to comply with the analysis requirements of § 279.53 and, if applicable, § 279.72. The owner or operator must keep the plan at the facility.

(a) *Rebuttable presumption for used oil in § 279.53.* At at minimum, the plan must specify the following:

(1) Whether sample analyses or knowledge of the halogen content of the used oil will be used to make this determination.

(2) If sample analyses are used to make this determination:

(i) The sampling method used to obtain representative samples to be analyzed. A representative sample may be obtained using either:

(A) One of the sampling methods in appendix I of part 261 of this chapter; or

(B) A method shown to be equivalent under §§ 260.20 and 260.21 of this chapter;

(ii) The frequency of sampling to be performed, and whether the analysis will be performed on-site or off-site; and

(iii) The methods used to analyze used oil for the parameters specified in § 279.53; and

(3) The type of information that will be used to determine the halogen content of the used oil.

(b) *On-specification used oil fuel in § 279.72.* At a minimum, the plan must specify the following if § 279.72 is applicable:

(1) Whether sample analyses or other information will be used to make this determination;

(2) If sample analyses are used to make this determination:

(i) The sampling method used to obtain representative samples to be analyzed. A representative sample may be obtained using either:

(A) One of the sampling methods in appendix I of part 261 of this chapter; or

(B) A method shown to be equivalent under § 260.20 and 260.21 of this chapter;

(ii) Whether used oil will be sampled and analyzed prior to or after any processing/re-refining;

(iii) The frequency of sampling to be performed, and whether the analysis will be performed on-site or off-site; and

(iv) The methods used to analyze used oil for the parameters specified in § 279.72; and

(3) The type of information that will be used to make the on-specification used oil fuel determination.

§ 279.56 Tracking.

(a) *Acceptance.* Used oil processors/re-refiners must keep a record of each used oil shipment accepted for processing/re-refining. These records may take the form of a log, invoice, manifest, bill of lading or other shipping documents. Records for each shipment must include the following information:

(1) The name and address of the transporter who delivered the used oil to the processor/re-refiner;

(2) The name and address of the generator or processor/re-refining from

whom the used oil was sent for processing/re-refining;

(3) The EPA identification number of the transporter who delivered the used oil to the processor/re-refiner;

(4) The EPA identification number (if applicable) of the generator or processor/re-refiner from whom the used oil was sent for processing/re-refining;

(5) The quantity of used oil accepted; and

(6) The date of acceptance.

(b) *Delivery.* Used oil processor/re-refiners must keep a record of each shipment of used oil that is shipped to a used oil burner, processor/ re-refiner, or disposal facility. These records may take the form of a log, invoice, manifest, bill of lading or other shipping documents. Records for each shipment must include the following information:

(1) The name and address of the transporter who delivers the used oil to the burner, processor/re-refiner or disposal facility;

(2) The name and address of the burner, processor/re-refiner or disposal facility who will receive the used oil;

(3) The EPA identification number of the transporter who delivers the used oil to the burner, processor/re-refiner or disposal facility;

(4) The EPA identification number of the burner, processor/re-refiner, or disposal facility who will receive the used oil;

(5) The quantity of used oil shipped; and

(6) The date of shipment.

(c) *Record retention.* The records described in paragraphs (a) and (b) of this section must be maintained for at least three years.

§ 279.57 Operating record and reporting.

(a) *Operating record.* (1) The owner or operator must keep a written operating record at the facility.

(2) The following information must be recorded, as it becomes available, and maintained in the operating record until closure of the facility:

(i) Records and results of used oil analyses performed as described in the analysis plan required under § 279.55; and

(ii) Summary reports and details of all incidents that require implementation of the contingency plan as specified in § 279.52(b).

(b) *Reporting.* A used oil processor/re-refiner must report to the Regional Administrator, in the form of a letter, on a biennial basis (by March 1 of each even numbered year), the following information concerning used oil activities during the previous calendar year:

(1) The EPA identification number, name, and address of the processor/re-refiner;

(2) The calendar year covered by the report; and

(3) The quantities of used oil accepted for processing/re-refining and the manner in which the used oil is processed/re-refined, including the specific processes employed.

§ 279.58 Off-site shipments of used oil.

Used oil processors/re-refiners who initiate shipments of used oil off-site must ship the used oil using a used oil transporter who has obtained an EPA identification number.

§ 279.59 Management of residues.

Owners and operators who generate residues from the storage, processing, or re-fining of used oil must manage the residues as specified in § 279.10(e).

Subpart G—Standards for Used Oil Burners Who Burn Off-Specification Used Oil for Energy Recovery

§ 279.60 Applicability.

(a) *General.* The requirements of this subpart apply to used oil burners except as specified in paragraphs (a)(1) and (a)(2) of this section. A used oil burner is a facility where used oil not meeting the specification requirements in § 279.11 is burned for energy recovery in devices identified in § 279.61(a). Facilities burning used oil for energy recovery under the following conditions are not subject to this Subpart:

(1) The used oil is burned by the generator in an on-site space heater under the provisions of § 279.23; or

(2) The used oil is burned by a processor/re-refiner for purposes of processing used oil, which is considered burning incidentally to used oil processing.

(b) *Other applicable provisions.* Used oil burners who conduct the following activities are also subject to the requirements of other applicable provisions of this part as indicated below.

(1) Burners who generate used oil must also comply this subpart C of this part;

(2) Burners who transport used oil must also comply with subpart E of this part;

(3) Except as provided in § 279.61(b), burners who process or re-refine used oil must also comply with subpart F of this part;

(4) Burners who direct shipments of off-specification used oil from their facility to a used oil burner or first claim that used oil that is to be burned for energy recovery meets the used oil fuel specifications set forth in § 279.11 must also comply with subpart H of this part; and

(5) Burners who dispose of used oil, including the use of used oil as a dust suppressant, must comply with subpart I of this part.

(c) *Specification fuel.* This subpart does not apply to persons burning used oil that meets the used oil fuel specification of § 279.11, provided that the burner complies with the requirements of subpart H of this part.

§ 279.61 Restrictions on burning.

(a) Off-specification used oil fuel may be burned for energy recovery in only the following devices:

(1) Industrial furnaces identified in § 260.10 of this chapter;

(2) Boilers, as defined in § 260.10 of this chapter, that are identified as follows:

(i) Industrial boilers located on the site of a facility engaged in a manufacturing process where substances are transformed into new products, including the component parts of products, by mechanical or chemical processes;

(ii) Utility boilers used to produce electric power, steam, heated or cooled air, or other gases or fluids for sale; or

(iii) Used oil-fired space heaters provided that the burner meets the provisions of § 279.23; or

(3) Hazardous waste incinerators subject to regulation under subpart O of parts 264 or 265 of this chapter.

(b)(1) With the following exception, used oil burners may not process used oil unless they also comply with the requirements of subpart F of this part.

(2) Used oil burners may aggregate off-specification used oil with virgin oil or on-specification used oil for purposes of burning, but may not aggregate for purposes of producing on-specification used oil.

§ 279.62 Notification

(a) *Identification numbers.* Used oil burners who have not previously complied with the notification requirements of RCRA section 3010 must comply with these requirements and obtain an EPA identification number.

(b) *Mechanics of notification.* A used oil burner who has not received an EPA identification number may obtain one by notifying the Regional Administrator of their used oil activity by submitting either:

(1) A completed EPA Form 8700-12 (To obtain EPA Form 8700-12 call RCRA/Superfund Hotline at 1-800-424-9346 or 703-920-9810); or

(2) A letter requesting an EPA identification number. Call the RCRA/Superfund Hotline to determine where to send a letter requesting an EPA identification number. The letter should include the following information:

(i) Burner company name:

(ii) Owner of the burner company:

(iii) Mailing address for the burner:

(iv) Name and telephone number for the burner point of contact:

(v) Type of used oil activity: and

(vi) Location of the burner facility.

§ 279.63 Rebuttable presumption for used oil.

(a) To ensure that used oil managed at a used oil burner facility is not hazardous waste under the rebuttable presumption of § 279.10(b)(1)(ii), a used oil burner must determine whether the total halogen content of used oil managed at the facility is above or below 1,000 ppm.

(b) The used oil burner must determine if the used oil contains above or below 1,000 ppm total halogens by:

(1) Testing the used oil;

(2) Applying knowledge of the halogen content of the used oil in light of the materials or processes used; or

(3) If the used oil has been received from a processor/refiner subject to regulation under subpart F of this part, using information provided by the processor/re-refiner.

(c) If the used oil contains greater than or equal to 1,000 ppm total halogens, it is presumed to be a hazardous waste/ because it has been mixed with halogenated hazardous waste listed in subpart D of part 261 of this chapter. The owner or operator may rebut the presumption by demonstrating that the used oil does not contain hazardous waste (for example, by using an analytical method from SW-846, Edition III, to show that the used oil does not contain significant concentrations of halogenated hazardous constituents listed in appendix VIII of part 261 of this chapter). EPA Publication SW-846, Third Edition, is available for the cost of $110.00 from the Government Printing Office, Superintendent of Documents, PO Box 371954, Pittsburgh, PA 15250-7954, 202-783-3238 (document number 955-001-00000-1).

(1) The rebuttable presumption does not apply to metalworking oils/fluids containing chlorinated paraffins, if they are processed, through a tolling arrangement as described in § 279.24(c), to reclaim metalworking oils/fluids. The presumption does apply to metalworking oils/fluids if such oils/fluids are recycled in any other manner, or disposed.

(2) The rebuttable presumption does not apply to used oils contaminated with chlorofluorocarbons (CFCs) removed from refrigeration units where the CFCs are destined for reclamation. The rebuttable presumption does apply to used oils contaminated with CFCs that have been mixed with used oil from sources other than refrigeration units.

(d) *Record retention.* Records of analyses conducted or information used to comply with paragraphs (a), (b), and (c) of this section must be maintained by the burner for at least 3 years.

§ 279.64 Used oil storage.

As specified in § 279.10(f), wastewaters containing "de minimis" quantities of used oil are not subject to the requirements of this Part, including the prohibition on storage in units other than tanks or containers. Used oil burners are subject to all applicable Spill Prevention, Control and Countermeasures (40 CFR part 112) in addition to the requirements of this subpart. Used oil generators are also subject to the Underground Storage Tank (40 CFR part 280) standards for used oil stored in underground tanks whether or not the used oil exhibits any characteristics of hazardous waste, in addition to the requirements of this subpart.

(a) *Storage units.* Used oil burners may not store used oil in units other than tanks, containers, or units subject to regulation under parts 264 or 265 of this chapter.

(b) *Condition of units.* Containers and aboveground tanks used to store oil at burner facilities must be:

(1) In good condition (no severe rusting, apparent structural defects or deterioration); and

(2) Not leaking (no visible leaks).

(c) *Secondary containment for containers.* Containers used to store used oil at burner facilities must be equipped with a secondary containment system.

(1) The secondary containment system must consist of, at a minimum:

(i) Dikes, berms or retaining walls; and

(ii) A floor. The floor must cover the entire area within the dike, berm, or retaining wall.

(2) The entire containment system, including walls and floor, must be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.

(d) *Secondary containment for existing aboveground tanks.* Existing aboveground tanks used to store used oil at burner facilities must be equipped with a secondary containment system.

(1) The secondary containment system must consist of, at a minimum:

(i) Dikes, berms or retaining walls; and

(ii) A floor. The floor must cover the entire area within the dike, berm, or retaining wall except areas where existing portions of the tank meet the ground; or

(iii) An equivalent secondary containment system.

(2) The entire containment system, including walls and floor, must be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.

(e) *Secondary containment for existing aboveground tanks.* New aboveground tanks used to store used oil at burner facilities must be equipped with a secondary containment system.

(1) The secondary containment system must consist of, at a minimum:

(i) Dikes, berms or retaining walls; and

(ii) A floor. The floor must cover the entire area within the dike, berm, or retaining wall; or

(iii) An equivalent secondary containment system.

(2) The entire containment system, including walls and floor, must be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.

(f) *Labels.* (1) Containers and aboveground tanks used to store used oil at burner facilities must be labeled or marked clearly with the words "Used Oil."

(2) Fill pipes used to transfer used oil into underground storage tanks at burner facilities must be labeled or marked clearly with the words "Used Oil."

(g) *Response to releases.* Upon detection of a release of used oil to the environment not subject to the requirements of part 280 subpart F which has occurred after the effective date of the authorized used oil program for the State in which the release is located, a burner must perform the following cleanup steps:

(1) Stop the release;

(2) Contain the released used oil;

(3) Clean up and manage properly the released used oil and other materials; and

(4) If necessary, repair or replace any leaking used oil storage containers or tanks prior to returning them to service.

§ 279.65 Tracking.

(a) *Acceptance.* Used oil burners must keep a record of each used oil shipment accepted for burning. These records may take the form of a log, invoice, manifest, bill of lading, or other shipping documents. Records for each shipment must include the following information:

(1) The name and address of the transporter who delivered the used oil to the burner;

(2) The name and address of the generator or processor/re-refiner from whom the used oil was sent to the burner;

(3) The EPA identification number of the transporter who delivered the used oil to the burner;

(4) The EPA identification number (if applicable) of the generator or processor/re-refiner from whom the used oil was sent to the burner;

(5) The quantity of used oil accepted; and

(6) The date of acceptance.

(b) *Record retention.* The records described in paragraph (a) of this section must be maintained for at least three years.

§ 279.66 Notices.

(a) *Certification.* Before a burner accepts the first shipment of off-specification used oil fuel from a generator, transporter, or processor/re-refiner, the burner must provide to the generator, transporter, or processor/re-refiner a one-time written and signed notice certifying that:

(1) The burner has notified EPA stating the l ation and general description of his used oil management activities; and

(2) The burner will burn the used oil only in an industrial furnace or boiler identified in § 279.61(a).

(b) *Certification retention.* The certification described in paragraph (a) of this section must be maintained for three years from the date the burner last receives shipment of off-specification used oil from that generator, transporter, or processor/re-refiner.

§ 279.67 Management of residues.

Burners who generate residues from the storage or burning of used oil must manage the residues as specified in § 279.10(e).

Subpart H—Standards for Used Oil Fuel Marketers

§ 279.70 Applicability.

(a) Any person who conducts either of the following activities is subject to the requirements of this section:

(1) Directs a shipment of off-specification used oil from their facility to a used oil burner; or

(2) First claims that used oil that is to be burned for energy recovery meets the used oil fuel specifications set forth in § 279.11.

(b) The following persons are not marketers subject to this subpart:

(1) Used oil generators, and transporters who transport used oil received only from generators, unless the generator or transporter directs a shipment of off-specification used oil from their facility to a used oil burner. However, processors/re-refiners who burn some used oil fuel for purposes of processing are considered to be burning incidentally to processing. Thus, generators and transporters who direct shipments of off-specification used oil to processor/re-refiners who incidently burn used oil are not marketers subject to this Subpart;

(2) Persons who direct shipments of on-specification used oil and who are not the first person to claim the oil meets the used oil fuel specifications of § 279.11.

(c) Any person subject to the requirements of this Subpart must also comply with one of the following:

(1) Subpart C of this part—Standards for Used Oil Generators;

(2) Subpart E of this part—Standards for Used Oil Transporters and Transfer Facilities;

(3) Subpart F of this part—Standards for Used Oil Processors and Re-refiners; or

(4) Subpart G of this part—Standards for Used Oil Burners who Burn Off-Specification Used Oil for Energy Recovery.

§ 279.71 Prohibitions.

A used oil fuel marketer may initiate a shipment of off-specification used oil only to a used oil burner who:

(a) Has an EPA identification number; and

(b) Burns the used oil in an industrial furnace or boiler identified in § 279.61(a).

§ 279.72 On-specification used oil fuel.

(a) *Analysis of used oil fuel.* A generator, transporter, processor/re-refiner, or burner may determine that used oil that is to be burned for energy recovery meets the fuel specifications of § 279.11 by performing analyses or obtaining copies of analyses or other information documenting that the used oil fuel meets the specifications. Such used oil that is to be burned for energy recovery is not subject to further regulation under this part.

(b) *Record retention.* A generator, transporter, processor/re-refiner, or burner who first claims that used oil that is to be burned for energy recovery meets the specifications for used oil fuel under § 279.11, must keep copies of analyses of the used oil (or other information used to make the determination) for three years.

§ 279.73 Notification.

(a) A used oil fuel marketer subject to the requirements of this section who has not previously complied with the notification requirements of RCRA Section 3010 must comply with these requirements and obtain an EPA identification number.

(b) A marketer who has not received an EPA identification number may obtain one by notifying the Regional Administrator of their used oil activity by submitting either:

(1) A completed EPA Form 8700–12; or

(2) A letter requesting an EPA identification number. The letter should include the following information:

(i) Marketer company name;

(ii) Owner of the marketer;

(iii) Mailing address for the marketer;

(iv) Name and telephone number for the marketer point of contact; and

(v) Type of used oil activity (i.e., generator directing shipments of off-specification used oil to a burner).

§ 279.74 Tracking.

(a) *Off-specification used oil delivery.* Any used oil generator who directs a shipment of off-specification used oil to a burner must keep a record of each shipment of used oil to a used oil burner. These records may take the form of a log, invoice, manifest, bill of lading or other shipping documents. Records for each shipment must include the following information:

(1) The name and address of the transporter who delivers the used oil to the burner;

(2) The name and address of the burner who will receive the used oil;

(3) The EPA identification number of the transporter who delivers the used oil to the burner;

(4) The EPA identification number of the burner;

(5) The quantity of used oil shipped; and

(6) The date of shipment.

(b) *On-specification used oil delivery.* A generator, transporter, processor/re-refiner, or burner who first claims that used oil that is to be burned for energy recovery meets the fuel specifications under § 279.11 must keep a record of each shipment of used oil to an on-specification used oil burner. Records for each shipment must include the following information:

(1) The name and address of the facility receiving the shipment;

(2) The quantity of used oil fuel delivered:

(3) The date of shipment or delivery: and

(4) A cross-reference to the record of used oil analysis or other information used to make the determination that the oil meets the specification as required under § 279.72(a).

(c) *Record retention.* The records described in paragraphs (a) and (b) of this section must be maintained for at least three years.

§ 279.75 Notices.

(a) *Certification.* Before a used oil generator, transporter, or processor/re-refiner directs the first shipment of off-specification used oil fuel to a burner, he must obtain a one-time written and signed notice from the burner certifying that:

(1) The burner has notified EPA stating the location and general description of used oil management activities; and

(2) The burner will burn the off-specification used oil only in an industrial furnace or boiler identified in § 279.61(a).

(b) *Certification retention.* The certification described in paragraph (a) of this section must be maintained for three years from the date the last shipment of off-specification used oil is shipped to the burner.

Subpart I—Standards for Use as a Dust Suppressant and Disposal of Used Oil

§ 279.80 Applicability.

The requirements of this subpart apply to all used oils that cannot be recycled and are therefore being disposed.

§ 279.81 Disposal.

(a) *Disposal of hazardous used oils.* Used oils that are identified as a hazardous waste and cannot be recycled in accordance with this part must be managed in accordance with the hazardous waste management requirements of parts 260 through 266, 268, 270 and 124 of this chapter.

(b) *Disposal of nonhazardous used oils.* Used oils that are not hazardous wastes and cannot be recycled under this part must be disposed in accordance with the requirements of parts 257 and 258 of this chapter.

§ 279.82 Use as a dust suppressant.

(a) The use of used oil as a dust suppressant is prohibited except when such activity takes place in one of the states listed in paragraph (c) of this section.

(b) A State may petition (e.g., as part of its authorization petition submitted to EPA under § 271.5 of this chapter or by a separate submission) EPA to allow the use of used oil (that is not mixed with hazardous waste and does not exhibit a characteristic other than ignitability) as a dust suppressant. The State must show that it has a program in place to prevent the use of used oil/hazardous waste mixtures or used oil exhibiting a characteristic other than ignitability as a dust suppressant. In addition, such programs must minimize the impacts of use as a dust suppressant on the environment.

(c) *List of States.* [Reserved]

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§ 279.65 Tracking.

(a) *Acceptance.* Used oil burners must keep a record of each used oil shipment accepted for burning. These records may take the form of a log, invoice, manifest, bill of lading, or other shipping documents. Records for each shipment must include the following information:

(1) The name and address of the transporter who delivered the used oil to the burner;

(2) The name and address of the generator or processor/re-refiner from whom the used oil was sent to the burner;

(3) The EPA identification number of the transporter who delivered the used oil to the burner;

(4) The EPA identification number (if applicable) of the generator or processor/re-refiner from whom the used oil was sent to the burner;

(5) The quantity of used oil accepted; and

(6) The date of acceptance.

(b) *Record retention.* The records described in paragraph (a) of this section must be maintained for at least three years.

§ 279.66 Notices.

(a) *Certification.* Before a burner accepts the first shipment of off-specification used oil fuel from a generator, transporter, or processor/re-refiner, the burner must provide to the generator, transporter, or processor/re-refiner a one-time written and signed notice certifying that:

(1) The burner has notified EPA stating the location and general description of his used oil management activities; and

(2) The burner will burn the used oil only in an industrial furnace or boiler identified in § 279.61(a).

(b) *Certification retention.* The certification described in paragraph (a) of this section must be maintained for three years from the date the burner last receives shipment of off-specification used oil from that generator, transporter, or processor/re-refiner.

§ 279.67 Management of residues.

Burners who generate residues from the storage or burning of used oil must manage the residues as specified in § 279.10(e).

Subpart H—Standards for Used Oil Fuel Marketers

§ 279.70 Applicability.

(a) Any person who conducts either of the following activities is subject to the requirements of this section:

(1) Directs a shipment of off-specification used oil from their facility to a used oil burner; or

(2) First claims that used oil that is to be burned for energy recovery meets the used oil fuel specifications set forth in § 279.11.

(b) The following persons are not marketers subject to this subpart:

(1) Used oil generators, and transporters who transport used oil received only from generators, unless the generator or transporter directs a shipment of off-specification used oil from their facility to a used oil burner. However, processors/re-refiners who burn some used oil fuel for purposes of processing are considered to be burning incidentally to processing. Thus, generators and transporters who direct shipments of off-specification used oil to processor/re-refiners who incidently burn used oil are not marketers subject to this Subpart;

(2) Persons who direct shipments of on-specification used oil and who are not the first person to claim the oil meets the used oil fuel specifications of § 279.11.

(c) Any person subject to the requirements of this Subpart must also comply with one of the following:

(1) Subpart C of this part—Standards for Used Oil Generators;

(2) Subpart E of this part—Standards for Used Oil Transporters and Transfer Facilities;

(3) Subpart F of this part—Standards for Used Oil Processors and Re-refiners; or

(4) Subpart G of this part—Standards for Used Oil Burners who Burn Off-Specification Used Oil for Energy Recovery.

§ 279.71 Prohibitions.

A used oil fuel marketer may initiate a shipment of off-specification used oil only to a used oil burner who:

(a) Has an EPA identification number; and

(b) Burns the used oil in an industrial furnace or boiler identified in § 279.61(a).

§ 279.72 On-specification used oil fuel.

(a) *Analysis of used oil fuel.* A generator, transporter, processor/re-refiner, or burner may determine that used oil that is to be burned for energy recovery meets the fuel specifications of § 279.11 by performing analyses or obtaining copies of analyses or other information documenting that the used oil fuel meets the specifications. Such used oil that is to be burned for energy recovery is not subject to further regulation under this part.

(b) *Record retention.* A generator, transporter, processor/re-refiner, or burner who first claims that used oil that is to be burned for energy recovery meets the specifications for used oil fuel under § 279.11, must keep copies of analyses of the used oil (or other information used to make the determination) for three years.

§ 279.73 Notification.

(a) A used oil fuel marketer subject to the requirements of this section who has not previously complied with the notification requirements of RCRA Section 3010 must comply with these requirements and obtain an EPA identification number.

(b) A marketer who has not received an EPA identification number may obtain one by notifying the Regional Administrator of their used oil activity by submitting either:

(1) A completed EPA Form 8700-12; or

(2) A letter requesting an EPA identification number. The letter should include the following information:

(i) Marketer company name;

(ii) Owner of the marketer;

(iii) Mailing address for the marketer;

(iv) Name and telephone number for the marketer point of contact; and

(v) Type of used oil activity (i.e., generator directing shipments of off-specification used oil to a burner).

§ 279.74 Tracking.

(a) *Off-specification used oil delivery.* Any used oil generator who directs a shipment of off-specification used oil to a burner must keep a record of each shipment of used oil to a used oil burner. These records may take the form of a log, invoice, manifest, bill of lading or other shipping documents. Records for each shipment must include the following information:

(1) The name and address of the transporter who delivers the used oil to the burner;

(2) The name and address of the burner who will receive the used oil;

(3) The EPA identification number of the transporter who delivers the used oil to the burner;

(4) The EPA identification number of the burner;

(5) The quantity of used oil shipped; and

(6) The date of shipment.

(b) *On-specification used oil delivery.* A generator, transporter, processor/re-refiner, or burner who first claims that used oil that is to be burned for energy recovery meets the fuel specifications under § 279.11 must keep a record of each shipment of used oil to an on-specification used oil burner. Records for each shipment must include the following information:

(1) The name and address of the facility receiving the shipment;

(2) The quantity of used oil fuel delivered;

(3) The date of shipment or delivery; and

(4) A cross-reference to the record of used oil analysis or other information used to make the determination that the oil meets the specification as required under § 279.72(a).

(c) *Record retention.* The records described in paragraphs (a) and (b) of this section must be maintained for at least three years.

§ 279.75 Notices.

(a) *Certification.* Before a used oil generator, transporter, or processor/re-refiner directs the first shipment of off-specification used oil fuel to a burner, he must obtain a one-time written and signed notice from the burner certifying that:

(1) The burner has notified EPA stating the location and general description of used oil management activities; and

(2) The burner will burn the off-specification used oil only in an industrial furnace or boiler identified in § 279.61(a).

(b) *Certification retention.* The certification described in paragraph (a) of this section must be maintained for three years from the date the last shipment of off-specification used oil was shipped to the burner.

Subpart I—Standards for Use as a Dust Suppressant and Disposal of Used Oil

§ 279.80 Applicability.

The requirements of this subpart apply to all used oils that cannot be recycled and are therefore being disposed.

§ 279.81 Disposal.

(a) *Disposal of hazardous used oils.* Used oils that are identified as a hazardous waste and cannot be recycled in accordance with this part must be managed in accordance with the hazardous waste management requirements of parts 260 through 266, 268, 270 and 124 of this chapter.

(b) *Disposal of nonhazardous used oils.* Used oils that are not hazardous wastes and cannot be recycled under this part must be disposed in accordance with the requirements parts 257 and 258 of this chapter.

§ 279.82 Use as a dust suppressant.

(a) The use of used oil as a dust suppressant is prohibited except when such activity takes place one of the states listed in paragraph (c) of this section.

(b) A State may petition (e.g., as part of its authorization petition submitted to EPA under § 271.5 of this chapter or by a separate submission) EPA to allow the use of used oil (that is not mixed with hazardous waste and does not exhibit a characteristic other than ignitability) as a dust suppressant. The State must show that it has a program in place to prevent the use of used oil/hazardous waste mixtures or used oil exhibiting a characteristic other than ignitability as a dust suppressant. In addition, such programs must minimize the impacts of use as a dust suppressant on the environment.

(c) *List of States.* [Reserved]

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APPENDIX 6
State (FDEP) Regulations: Chapters 17-701, 17-702, 17-710, 17-730

SOLID WASTE MANAGEMENT FACILITIES REGULATIONS
CHAPTER 17-701

CHAPTER 17-701
SOLID WASTE MANAGEMENT FACILITIES

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17-701.001 Declaration and Intent.
Specific Authority: 403.061, 403.704, F.S.
Law Implemented: 403.021, 403.061, 403.087, 403.701 through 403.8055, F.S.
History: New 10-1-74; Amended 5-24-79; Previously Numbered as 17-7.01; Formerly 17-7.001, Amended 6-25-90, Repealed 1-6-93

17-701.020 Definitions.
History: Transferred from 10D-12.02, 10-1-74; Revised 7-20-76; Amended 5-24-79, 6-13-84, 4-25-85, 7-1-85; Previously Numbered as 17-7.02; Amended 12-10-85; Formerly 17-7.02; Amended 8-2-89, 6-25-90. Transferred to 17-701.200.

17-701.030 Solid Waste Management Permit Requirements.
Specific Authority: 403.061, 403.704, F.S.
Law Implemented: 403.021, 403.061, 403.087, 403.702, 403.704, 403.705, 403.707, 403.708, F.S.
History: Transferred from 10-D12.03, 10D-12.04, 10D-12.07, 10-1-74; Amended 5-24-79, 6-13-84, 7-1-85; Previously Numbered as 17-7.03; Amended 12-10-85; Formerly 17-7.03, Amended 6-25-90, Repealed 1-6-93.

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Specific Authority: 403.061, 403.704, F.S.
Law Implemented: 403.021, 403.061, 403.087, 403.702, 403.704, 403.705, 403.707, 403.708, F.S.
History: Transferred from 10D-12.06, 10D-12.07, 10-1-74; Amended 5-24-79, 5-27-82; Previously Numbered as 17-7.04; Amended 12-10-85; Formerly 17-7.040; Amended 6-25-90, Transferred to 17-701.300.

17-701.050 Sanitary Landfill Criteria.
Specific Authority: 403.061, 403.704, F.S.
Law Implemented: 403.702, 403.704, 403.705, 403.707, 403.708, F.S.
History: Transferred from 10D-12.07, 10-1-74; Revised 5-11-75, 7-20-76; Amended 5-24-79; Previously Numbered as 17-7.05; Amended 12-10-85; Formerly 17-7.050; Amended: 7-19-90, Repealed 1-6-93.

17-701.060 Special Waste Handling.
Specific Authority: 403.061, 403.704, 403.705, 403.8055, F.S.
Law Implemented: 403.021, 403.061, 403.087, 403.702, 403.704, 403.705, 403.707, 403.708, F.S.

History: Transferred from 10D-12.07, 10-1-74; Amended 5-24-79, 11-25-82, 7-10-84; Previously Numbered as 17-7.06; Amended 12-10-85; Formerly 17-7.060, Transferred to 17-701.520.

17-701.061 Construction and Demolition Debris Disposal
Specific Authority: 403.061, 403.704, 403.707, F.S.
Law Implemented: 403.706, 403.707, F.S.
History: New 8-2-89, Transferred to 17-701.730.

17-701.070 Closure of Landfills.
Specific Authority: 403.061, 403.704, F.S.
Law Implemented: 403.021, 403.061, 403.087, 403.702, 403.704, 403.705, 403.707, 403.708, F.S.
History: New 10-1-74; Amended 5-24-79, 7-1-85; Previously Numbered as 17-7.07; Amended 12-10-85; Formerly 17-7.070, Repealed 1-6-93.

17-701.071 Closure Schedule.
Specific Authority: 403.704, F.S.
Law Implemented: 403.704, 403.707, F.S.
History: New 7-1-85; Formerly 17-7.071, Repealed 1-6-93.

17-701.072 Closure Permit Application Submittal.
Specific Authority: 403.704, F.S.
Law Implemented: 403.704, 403.707, F.S.
History: New 7-1-85; Formerly 17-7.072, Repealed 1-6-93.

17-701.073 Closure Plan Requirements.
Specific Authority: 403.704, F.S.
Law Implemented: 403.704, 403.707, F.S.
History: New 7-1-85; Formerly 17-7.073, Repealed 1-6-93.

17-701.074 Closure Procedures.
Specific Authority: 403.704, F.S.
Law Implemented: 403.704, 403.707, F.S.
History: New 7-1-85; Formerly 17-7.074, Transferred to 17-701.610.

17-701.075 Long Term Care.
Specific Authority: 403.704, F.S.
Law Implemented: 403.704, 403.707, F.S.
History: New 7-1-85, Formerly 17-7.075, Transferred to 17-701.620.

17-701.076 Financial Responsibility.
Specific Authority: 403.704, F.S.
Law Implemented: 403.704, 403.707, F.S.
History: New 7-1-85; Formerly 17-7.076, Amended 11-28-89, Transferred to 17-701.630.

17-701.077 Permit Application Requirements.
Specific Authority: 403.704, F.S.
Law Implemented: 403.704, 403.707, F.S.
History: New 7-1-85; Transferred to 17-701.030(3), 12-10-85.

17-701.078 Approval of Alternative Procedures and Requirements.
Specific Authority: 403.704, F.S.
Law Implemented: 403.704, 403.707, F.S.
History: New 7-1-85; Amended 12-10-85; Formerly 17-7.078, Transferred to 17-701.310.

17-701.080 Supervision and Inspection.
Specific Authority: 403.061, F.S.
Law Implemented: 403.021, 403.031, 403.061, 403.087, 403.701 through 403.713, F.S., Chapter 74-342.
History: Transferred from 10D-12.07, 10-1-74; Previously Numbered as 17-7.08; Formerly 17-7.080, Repealed 1-6-93.

17-701.090 Volume Reduction Plants.
Specific Authority: 403.061, 403.704, F.S.
Law Implemented: 403.021, 403.061, 403.087, 403.702, 403.704, 403.705, 403.707, 403.708, F.S.
History: New 10-1-74; Amended 5-24-79; Previously Numbered as 17-7.09; Formerly 17-7.090, Repealed 1-6-93.

17-701.091 Transfer Stations.
Specific Authority: 403.061, 403.7044, F.S.
Law Implemented: 403.021, 403.061, 403.087, 403.702, 403.704, 403.705, 403.707, 403.708, F.S.
History: New 5-24-79; Formerly 17-7.091, Repealed 1-6-93.

17-701.100 Intent.
The intent of this rule is to establish standards for the construction, operation, and closure of solid waste management facilities to minimize their threat to public health and the environment, and to implement the provisions of the Florida Solid Waste Management Act, Sections 403.701-403.715, Florida Statutes.
Specific Authority: 403.061, 403.704, F.S.
Laws Implemented: 403.021, 403.061, 403.087, 403.701 through 403.717, F.S.
History: New 1-6-93.

17-701.120 Notification of Disposal Activity.
Specific Authority: 403.061, 403.704, F.S.
Law Implemented: 403.707, F.S.
History: New 6-13-84; Amended 4-25-85; Previously Numbered as 17-7.12; Formerly 17-7.120, Repealed 1-6-93.

17-701.130 Forms.
Specific Authority: 120.53(1), 403.061, F.S.
Law Implemented: 120.53(1), 120.55, 403.0875, 403.7125, F.S.
History: New 11-30-82; Amended 6-16-84, 9-12-84, 2-25-85, 7-1-85; Formerly 17-1.206 and Amended 12-10-85; Formerly 17-7.130, Amended 11-28-89, Repealed 1-6-93.

17-701.200 Definitions. The following words, phrases or terms as used in this chapter, unless the context indicates otherwise, shall have the following meaning:

(1) "Agricultural wastes" means the solid wastes resulting from normal farming operations, the raising and slaughtering of animals, and the processing of animal products, orchard, and field crops, which are stored, transported, or disposed of as an unwanted waste material.

(2) "Air quality standards" means, unless otherwise specified, those standards set forth in Chapter 17-272, F.A.C.

(3) "ASTM" means the American Society for Testing and Materials.

(4) "Aquifer" means a geologic formation, group of formations, or part of a formation capable of yielding a significant amount of ground water to wells, springs, or surface water.

(5) "Biohazardous waste" has the meaning given it in Rule 17-712.200, F.A.C.

(6) "Biological waste" has the meaning given it in Rule 17-712.200, F.A.C.

(7) "Bird hazard" means an increase in the likelihood of bird/aircraft collisions that may cause damage to the aircraft or injury to its occupants.

(8) "Bulky wastes" means items whose large size or weight precludes or complicates their handling by normal collection, processing, or disposal methods.

(9) "Cell" means a volume of solid waste received since the last previous application of initial cover. The compacted waste and subsequent initial cover constitute a cell which usually contains wastes deposited in one day.

(10) "Clean debris" means any solid waste which is virtually inert, which is not a pollution threat to ground water or surface waters, is not a fire hazard, and is likely to retain its physical and chemical structure under expected conditions of disposal or use. The term includes brick, glass, ceramics, and uncontaminated concrete including embedded pipe or steel.

(11) "Closing" means the time at which a solid waste management facility ceases to accept wastes, and includes those actions taken by the owner or operator of the facility to prepare the facility for any necessary monitoring and maintenance after closing.

(12) "Closure" means the cessation of operation of a solid waste management facility and the act of securing such a facility so that it will pose no significant threat to human health or the environment. This includes closing, long term monitoring, maintenance, and financial responsibility.

(13) "Cm/sec" means centimeters per second.

(14) "Compost" has the meaning given it in Rule 17-709.200, F.A.C.

(15) "Composting" has the meaning given it in Rule 17-709.200, F.A.C.

(16) "Composite liner" means a liner comprised of a geomembrane, which is underlain and in direct contact with a soil component.

(17) "Construction and demolition debris" means materials generally considered to be not water soluble and non-hazardous in nature, including but not limited to steel, glass, brick, concrete, asphalt roofing material, pipe, gypsum wallboard, and lumber, from the construction or destruction of a structure as part of a construction or demolition project or from the renovation of a structure. The term includes rocks, soils, tree remains, trees, and other vegetative matter which normally results from land clearing or land development operations for a construction project. Mixing of construction and demolition debris with other types of solid waste, including material which is not from the actual construction or destruction of a structure, will cause it to be classified as other than construction and demolition debris.

(18) "Department" means the State of Florida Department of Environmental Regulation.

(19) "Design period" means the operating life of the solid waste management facility plus any long-term care period after closing.

(20) "Disposal" means the discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid waste into or upon any land or water so that such solid waste or any constituent thereof may enter other lands or be emitted into the air or discharged into any waters, including ground waters, or otherwise enter the environment.

(21) "Engineer of record" means a professional engineer registered in the State of Florida in accordance with provisions of Chapter 471, F.S., who is appointed by the owner or operator of the solid waste management facility.

(22) "Facility" means all contiguous land and structures, other appurtenances, and improvements on the land used for solid waste management.

(23) "Fill" means man-made deposits of earth or waste materials used to fill excavations, to increase the vertical or horizontal extent of land or solid waste disposal units, or to build embankments.

(24) "Final cover" means the materials used to cover the top and sides of a landfill when fill operations cease.

(25) "Garbage" means all kitchen and table food waste, and animal or vegetative waste that is attendant with or results from the storage, preparation, cooking, or handling of food materials.

(26) "Gas condensate" means the liquid generated as a result of gas recovery processes at a landfill.

(27) "Gas control system" means a system of wells, trenches, pipes, and other related structures that vents the gas produced in a solid waste disposal unit to the atmosphere.

(28) "Gas recovery facility" means a system of wells, trenches, pipes, and other related ancillary structures such as manholes, compressors, and monitoring installations that collect and transport the gas produced in a waste disposal unit to one or more gas processing points or flares. The flow of gas through such a system may be produced by naturally occurring gas pressure gradients or may be aided by an induced draft generated by mechanical means.

(29) "Generation" means the act or process of producing solid waste.

(30) "Geomembrane" means a low-permeability synthetic membrane used as an integral part of a system designed to limit the movement of liquid or gas in the system.

(31) "Geonet" means a type of a geogrid that allows planar flow of liquids and serves as a drainage system.

(32) "Geotextile" means a permeable textile used as a part of a system designed to act as a filter to prevent the flow of fine particles into drainage systems, to provide planar flow for drainage, to serve as a cushion to protect geomembranes, or to provide structural support.

(33) "Ground water" means water beneath the surface of the ground within a zone of saturation, whether or not it is flowing through known and definite channels.

(34) "Hazardous waste" means a solid waste regulated by the Department as a hazardous waste pursuant to Chapter 17-730, F.A.C.

(35) "Household waste" means any solid waste, including garbage, trash, and sanitary waste in septic tanks, derived from households, including single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds, and day-use recreation areas.

(36) "Industrial solid waste" means solid waste generated by manufacturing or industrial processes that is not a hazardous waste. Such waste may include, but is not limited to, waste resulting from the following manufacturing processes: electric power generation; fertilizer/agricultural chemicals; food and related products or byproducts; inorganic chemicals; iron and steel manufacturing; leather and leather products; nonferrous metals manufacturing or foundries; organic chemicals; plastics and resins manufacturing; pulp and paper industry; rubber and miscellaneous plastic products; stone, glass, clay, and concrete products; textile manufacturing; transportation equipment; and water treatment. This term does not include mining waste or oil and gas waste.

(37) "Initial cover" means a 6-inch layer of compacted earth, used to cover an area of solid waste before placement of additional waste, intermediate cover, or final cover. The term also includes other material or thickness, approved by the Department, that minimizes vector breeding, animal attraction, and moisture infiltration, minimizes fire potential, prevents blowing litter, controls odors, and improves landfill appearance.

(38) "Intermediate cover" means a layer of compacted earth at least one foot in depth applied to a solid waste disposal unit. The term also includes other material or thickness, approved by the Department, that minimizes vectors, odors, and fire, and is consistent with the leachate control design of the landfill.

(39) "Landfill" means a solid waste disposal facility, which is an area of land or an excavation where wastes are or have been placed for disposal, for which a permit, other than a general permit, is required by Section 403.707, F.S. This term shall not include:

(a) A land spreading site; or

(b) A surface impoundment; or

(c) An injection well defined under and subject to the provisions of Chapter 17-28, F.A.C.

(40) "Lateral expansion" means any horizontal increase in the dimensions of the waste boundary of an existing solid waste disposal unit.

(41) "Leachate" means liquid that has passed through or emerged from solid waste and may contain soluble, suspended or miscible materials.

(42)"Lift" means a completed horizontal series of cells.

(43) "Lined landfill" means a landfill constructed with a liner made of synthetic materials, low-permeability soils, or a combination of these materials, which has been approved by the Department, and which has met the Department's landfill design criteria at the time of permitting.

17-701.200(36) - 17-701.200(43)

(44) "Liner" means a continuous layer of low-permeability natural or synthetic materials, under the bottom and sides of a landfill, solid waste disposal unit, or leachate surface impoundment, which controls the downward or lateral escape of waste constituents, or leachate.

(45) "Liner system" means a system of leachate collection and liner layers comprised of natural or synthetic materials installed between the subgrade and the waste for the purpose of containing the waste and collecting and removing leachate.

(46) "Liquid waste" means any waste material that is determined to contain free liquids as defined by Method 9095 (Paint Filter Liquids Test), as described in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods" (EPA Pub. No. SW-846).

(47) "Lower explosive limit" means the lowest percent by volume of a mixture of explosive gases which will propagate a flame in air at a temperature of 25 degrees Celsius and atmospheric pressure.

(48) "Materials recovery" means any process by which one or more of the various components in solid waste is separated and concentrated for reuse.

(49) "Materials recovery facility" means a solid waste management facility that provides for the extraction from solid waste of recyclable materials, materials suitable for use as a fuel or soil amendment, or any combination of such materials.

(50) "Method detection limit" means the smallest concentration of an analyte of interest that can be measured and reported with 99 percent confidence that the concentration is greater than zero. The method detection limit shall be determined pursuant to procedures outlined in Appendix B of 40 CFR Part 136, which is hereby incorporated by reference.

(51) "Monitoring wells" means strategically located wells from which water samples are drawn for water quality analysis.

(52) "Normal farming operations" means the customary and generally accepted activities, practices, and procedures that farmers adopt, use, or engage in during the production and preparation for market of poultry, livestock, and associated farm products; and in the production, harvesting, or packaging of agricultural crops which include agronomic, horticultural, and silvicultural crops. Included is the management, collection, storage, composting, transportation, and utilization of organic agricultural waste, manure, and materials solely derived from agricultural crops.

17-701.200(44) - 17-701.200(52)

(53) "100-year floodplain" means the lowland and relatively flat areas adjoining inland and coastal waters, including flood-prone areas of offshore islands, that are inundated by the 100-year flood.

(54) "On-site" means on the same or geographically contiguous property, which may be divided by public or private right-of-way.

(55) "Open burning" means the burning of any material under such conditions that the products of combustion are emitted directly into the atmosphere.

(56) "Operator" means any person, including the owner, who is principally engaged in, and is in charge of, the actual operation, supervision, and maintenance of a solid waste management facility.

(57) "Person" means any and all persons, natural or artificial, including any individual, firm, or association; any municipal or private corporation organized or existing under the laws of Florida or any other state; any county of this state; and any governmental agency of this state or the Federal Government.

(58) "Processing" means any technique designed to change the physical, chemical, or biological character or composition of any solid waste so as to render it safe for transport, amenable to recovery, storage or recycling; safe for disposal; or reduced in volume or concentration.

(59) "Professional engineer" means an engineer registered in the State of Florida in accordance with Chapter 471, F.S.

(60) "Professional geologist" means a geologist registered in the State of Florida in accordance with Chapter 492, F.S.

(61) "Recovered materials" means those materials which have known recycling potential, can be feasibly recycled, and have been diverted or removed from the solid waste stream for sale, use, or reuse, by separation, collection, or processing.

(62) "Recyclable material" means those materials which are capable of being recycled and which would otherwise be processed or disposed of as solid waste.

(63) "Recycling" means any process by which solid waste, or materials which would otherwise become solid waste, are collected, separated, or processed and reused or returned to use in the form of raw materials or products.

(64) "Resource recovery" means the process of recovering materials or energy from solid waste, excluding those materials or solid waste under control of the Nuclear Regulatory Commission.

(65) "Sanitary nuisance" means a condition created by any person, or the keeping, maintaining, propagation, existence, or permitting of anything by a person by which the health or lives of individuals may be threatened or impaired, or by which disease may be caused or transmitted.

(66) "Shallow water supply well" means any potable water well which pumps water from an unconfined water table aquifer.

(67) "Shredding" means a process of reducing the particle size of solid waste through the use of grinding, shredding, milling, or rasping machines.

(68) "Site" means the area of land or water within the property boundaries of a solid waste management facility where one or more solid waste processing, resource recovery, recycling, storage, or disposal areas are located.

(69) "Solid waste" means garbage, refuse, yard trash, construction and demolition debris, white goods, special waste, ashes, sludge, or other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from domestic, industrial, commercial, mining, agricultural, or governmental operations. Materials not regulated as solid waste pursuant to this Chapter are: nuclear source or byproduct materials regulated under Chapter 404, F.S., or under the Federal Atomic Energy Act of 1954 as amended; suspended or dissolved materials in domestic sewage effluent or irrigation return flows, or other regulated point source discharges; regulated air emissions; and fluids or wastes associated with natural gas or crude oil exploration or production.

(70) "Solid waste disposal facility" means any solid waste management facility which is the final resting place for solid waste, including landfills and incineration facilities that produce ash from the process of incinerating municipal solid waste.

(71) "Solid waste disposal unit" means a discrete area of land used for the disposal of solid waste.

(72) "Solid waste management" means the process by which solid waste is collected, transported, stored, separated, processed, or disposed of in any other way, according to an orderly, purposeful, and planned program.

(73) "Solid waste management facility" means any solid waste disposal area, volume reduction plant, transfer station, or other facility, the purpose of which is resource recovery or the disposal, recycling, processing, or storage of solid waste. The term does not include facilities which use or ship recovered materials unless such facilities are managing solid waste.

(74) "Special wastes" means solid wastes that can require special handling and management, including but not limited to, white goods, waste tires, used oil, mattresses, furniture, lead-acid batteries, asbestos, and biological wastes.

(75) "Stabilized" means that biological and chemical decomposition of the wastes has ceased or diminished to a level so that such decomposition no longer poses a pollution, health, or safety hazard.

(76) "Ton" means a short ton, 2,000 pounds (.9078 metric tons).

(77) "Transfer station" means a site the primary purpose of which is to store or hold solid waste for transport to a processing or disposal facility. It does not include green boxes, compactor units, permanent dumpsters, and other containers from which such wastes are transported to a landfill or other solid waste management facility.

(78) "Unlined landfill" means a landfill which does not have a bottom liner system approved by the Department, or which has a bottom liner system which does not or did not meet the Department's landfill design criteria at the time of permitting. This term includes landfills underlain by only in-situ soils unless these soils have been tested and approved by the Department as part of a construction permit.

(79) "Used oil" has the meaning given it in Rule 17-710.200, F.A.C.

(80) "Uppermost aquifer" means the geologic formation nearest the natural ground surface that is an aquifer, as well as lower aquifers that are hydraulically interconnected with this aquifer within a facility's property boundary.

(81) "Vector" means a carrier organism that is capable of transmitting a pathogen from one organism to another.

(82) "Volume reduction plant" means an incinerator, pulverizer, compactor, shredding and baling plant, composting plant, or other plant which accepts and processes solid waste for recycling or disposal.

(83) "Waste tire" has the meaning given it in Rule 17-711.200, F.A.C.

(84) "Water quality standards and criteria" means, unless otherwise specified, those standards and criteria set forth in Chapters 17-3 and 17-302, F.A.C.

(85) "White goods" means inoperative and discarded refrigerators, ranges, washers, water heaters, freezers, and other similar domestic and commercial large appliances.

(86) "Working face" means that portion of a landfill where waste is deposited, spread, and compacted before placement of initial cover.

(87) "Yard trash" means vegetative matter resulting from landscaping maintenance or land clearing operations and includes materials such as tree and shrub trimmings, grass clippings, palm fronds, trees and tree stumps.

(88) "Zone of discharge" has the meaning given it in Rule 17-3.021, F.A.C.

All other definitions found in Chapter 403, F.S., and Chapters 17-702 through 17-720, F.A.C., to the extent that they are consistent with the definitions of this chapter, are applicable to the terms used in this chapter.

Specific Authority: 403.061, 403.704, F.S.
Law Implemented: 403.021, 403.031, 403.061, 403.087, 403.701 through 403.717, F.S.
History: Transferred from 10D-12.02, 10-1-74; Revised 7-20-76; Amended 5-24-79, 6-13-84, 4-25-85, 7-1-85; Previously numbered as 17-7.02; Amended 12-10-85; Formerly 17-7.020; Amended 8-2-89, 6-25-90; Formerly 17-701.020; Amended 1-6-93.

17-701.210 Documents Incorporated by Reference.

Specific references to the documents listed below are made throughout this chapter. These documents are adopted as standards and are incorporated into this chapter by reference. The reference documents are available for inspection at the Department's district offices.

(1) EPA document EPA/530-SW-86-031, Construction Quality Assurance for Hazardous Waste Land Disposal Facilities; October, 1986.

(2) 40 CFR Part 61.154, Standard for Active Waste Disposal Sites; November 20, 1990.

(3) ASTM Method E96-80, Procedure BW, "Test Methods for Water Vapor Transmission of Materials," Sections 04.06, 08.03, and 15.09; February, 1981, editorial changes made standard in May, 1987.

(4) 40 CFR Part 136, Appendix B, Definition and Procedure for the Determination of the Method Detection Limit, revision 1.1; October 26, 1984.

(5) Method 9095, Paint Filter Test, found in EPA document EPA SW-846, Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods; Third Edition, September, 1986, as revised, December, 1987.

(6) 40 CFR Part 258, Appendix II; October, 1991.

Specific Authority: 403.061, 403.704, F.S.
Law Implemented: 403.061, 403.701 through 403.717, F.S.
History: New 1-6-93.

17-701.220 General Applicability. This chapter applies to all solid waste and each solid waste management facility in this state, with the following exceptions:

(1) This chapter was substantially amended on January 6, 1993, and a number of provisions were deleted or modified at that time. Except as otherwise specifically provided herein, facilities which were permitted or received a site certification prior to January 6, 1993, or for which a complete application was submitted and deemed complete by the Department prior to January 6, 1993, remain subject to the provisions which were in effect prior to January 6, 1993, and which were applicable to them.

(2) This chapter applies to all solid waste and each solid waste management facility in this state, with the following exceptions.

(a) Surface impoundments not addressed in Rule 17-701.400(6), F.A.C.;

(b) Injection wells defined under and subject to the provisions of Chapter 17-28, F.A.C.; and

(c) Recovered materials, if:

1. A majority of the recovered materials at a facility are demonstrated to be sold, used, or reused within one year;

2. The recovered materials or the products or byproducts of operations that process recovered materials are not discharged, deposited, injected, dumped, spilled, leaked, or placed into or upon any land or water so that such products or byproducts or any constituent thereof may enter other lands or be emitted into the air or discharged into any waters, including ground water, or otherwise enter the environment or pose a threat to public health and safety; and

3. The recovered materials are not hazardous wastes and have not been recovered from hazardous wastes.

(3) Phosphogypsum is considered solid waste. However, phosphogypsum stack systems are not considered landfills, and are not subject to the specific landfill construction, operation, or closure requirements of this chapter.

Specific Authority: 403.061, 403.704, F.S.
Law Implemented: 403.061, 403.701 through 403.717, F.S.
History: New 1-6-93.

17-701.300 Prohibitions.

(1) General prohibition.

(a) No person shall store, process, or dispose of solid waste except at a permitted solid waste management facility or a facility exempt from permitting under this chapter.

(b) No person shall store or dispose of solid waste in a manner or location that causes air quality standards to be violated or water quality standards or criteria of receiving waters to be violated.

(2) Disposal. Unless authorized by a Department permit or site certification in effect on January 6, 1993, no solid waste shall be stored or disposed of by being placed:

(a) In an area where geological formations or other subsurface features will not provide support for the solid waste;

(b) In any area where the absence of geological formations or subsurface features would allow for the unimpeded discharge of waste or leachate to ground or surface water. A person may dispose of solid waste in such an area upon demonstration to the Department that permanent leachate control methods will result in compliance with water quality standards under Chapters 17-302 and 17-520, F.A.C.;

(c) Within 500 feet of an existing or approved shallow water supply well unless disposal takes place at a facility for which a complete permit application was filed or which was originally permitted before the shallow water supply well was in existence;

(d) In a dewatered pit unless the pit is lined and permanent leachate containment and special design techniques are used to ensure the integrity of the liner;

(e) In an area subject to frequent and periodic flooding unless flood protection measures are in place;

(f) In any natural or artificial body of water including ground water;

(g) Within 200 feet of any natural or artificial body of water, including wetlands within the jurisdiction of the Department, except bodies of water contained completely within the property boundaries of the disposal site, which do not discharge from the site to surface waters. A person may dispose of solid waste within the 200 foot setback area upon demonstration to the Department that permanent leachate control methods will result in compliance with water quality standards under Chapters 17-302 and 17-520, F.A.C. Stormwater control methods shall meet stormwater requirements of Chapter 17-25, F.A.C. However, nothing contained herein shall prohibit the Department from imposing conditions necessary to assure that solid waste disposed of within the 200 foot setback area will not cause pollution from the site in contravention of Department rules.

(h) On the right of way of any public highway, road, or alley;

(3) Burning. Open burning of solid waste is prohibited except in accordance with Rule 17-701.520(2), F.A.C. Controlled burning of solid waste is prohibited except in a permitted incinerator, or in a facility in which the burning of solid waste is authorized by a site certification order issued under Chapter 403, Part II, F.S.; clean vegetative and wood wastes may be burned in an air curtain incinerator in accordance with Rule 17-2.500(1)(e), F.A.C.

(4) Hazardous waste. No hazardous waste shall be disposed of in a solid waste management facility unless such facility is permitted pursuant to Chapter 17-730, F.A.C.

(5) Biohazardous waste. Biohazardous waste shall be properly incinerated so that little or no organic material remains in the ash residue, or shall be processed by a method approved by the Department pursuant to Chapter 17-712, F.A.C. No untreated biohazardous waste shall be knowingly deposited in any landfill.

(6) Class I surface waters. The Department shall not issue a construction permit for a landfill within 3,000 feet of Class I surface waters.

(7) Special wastes for landfills. No person who knows or who should know of the nature of such solid waste shall dispose of the following wastes in any landfill:

(a) Lead-acid batteries;

(b) Used oil, except as provided in Chapter 17-710, F.A.C.;

(c) Yard trash, except in unlined landfills classified by Department rule;

(d) White goods; and

(e) Whole waste tires, except as provided in Chapter 17-711, F.A.C.

(8) Special wastes for waste-to-energy facilities. No person who knows or who should know of the nature of such solid waste shall dispose of lead-acid batteries in any waste-to-energy facility.

(9) Liquids restrictions.

(a) Noncontainerized liquid waste shall not be placed in solid waste disposal units unless:

1. The waste is household waste other than septic waste;

2. The waste is leachate or gas condensate derived from the solid waste disposal unit and the solid waste disposal unit is designed in accordance with Rule 17-701.400, F.A.C.; or

3. Such disposal is authorized by the Department on a case-by-case basis, based upon the nature and quantity of the liquid waste, the landfill design, the landfill operational practices, and the potential for creating leachate in excess of the landfill's capacity to handle.

(b) Containers holding liquid waste shall not be placed in a solid waste disposal unit unless:

1. The container is a small container similar in size to that normally found in household waste;

2. The container is designed to hold liquids for use other than storage; or

3. The waste is household waste.

(c) Containers or tanks twenty gallons or larger in capacity shall either have one end removed or cut open, or have a series of punctures around the bottom to ensure the container is empty and free of residue. The empty container or tank shall be compacted to its smallest practical volume for disposal.

Specific Authority: 403.061, 403.704, F.S.
Law Implemented: 403.021, 403.061, 403.087, 403.702, 403.704, 403.705, 403.707, 403.708, F.S.
History: Transferred from 10D-12.06, 10D-12.07, 10-1-74; Amended 5-24-79, 5-27-82; Previously Numbered as 17-7.04; Amended 12-10-85; Formerly 17-7.040; Amended 6-25-90; Formerly 17-701.040; Amended 1-6-93.

17-701.310 Approval of Alternate Procedures and Requirements.

(1) Applicability. Any person subject to the provisions of this chapter or Chapters 17-702 through 17-720, F.A.C., may request in writing a determination by the Secretary that a requirement shall not apply, and shall request approval of alternate procedures or requirements.

(2) Criteria. The request shall set forth at a minimum the following information:

(a) The specific facility for which an exception is sought;

(b) The specific provisions from which an exception is sought;

(c) The basis for the exception;

(d) The alternate procedure or requirement for which approval is sought and a demonstration that the alternate procedure or requirement provides an equal degree of protection for the public and the environment; and

(e) A demonstration of the effectiveness of the proposed alternate procedure.

(3) Department order. The Secretary shall specify by order each alternate procedure or requirement approved in accordance with this section or shall issue an order denying the request for such approval. The Department's order shall be agency action, reviewable in accordance with Section 120.57, F.S.

(4) Alternate sampling procedures. Approval of alternative or new field and laboratory sampling and analysis procedures shall be requested in accordance with Rules 17-160.430, 17-160.520 and 17-160.530, F.A.C.

(5) Variances. Requests for variances from specific statutory requirements shall be made pursuant to Section 403.201, F.S., and Rule 17-103.100, F.A.C.

(6) Requests for alternate procedures shall be accompanied by a fee of $2000 in accordance with Rule 17-4.050(4)(m)4., F.A.C. Requests must be submitted to the Director of the Division of Waste Management, 2600 Blair Stone Road, Twin Tower Office Building, Tallahassee, Florida 32399-2400.

Specific Authority: 403.704, F.S.
Law Implemented: 403.704, 403.707, F.S.
History: New 7-1-85; Amended 12-10-85; Formerly 17-7.078; Formerly 17-701.078; Amended 1-6-93.

17-701.320 Solid Waste Management Facility Permit Requirements, General.

(1) Permit requirements. No solid waste management facility shall be constructed, operated, maintained, modified, or closed without a permit issued by the Department.

(2) Exemptions. No permit under this chapter shall be required for the following activities or facilities provided that no sanitary nuisance or any condition adversely affecting the environment or public health is created, and provided that the activity does not violate other state or local laws, ordinances, rules, regulations, or orders. For purposes of this subsection, disposal shall be deemed to include storage prior to disposal or processing.

(a) Disposal by persons of solid waste resulting from their own activities on their own property, provided such waste is either from their residential property or is rocks, soils, trees, tree remains, and other vegetative matter which normally results from land development operations.

(b) Disposal by persons of solid waste resulting from their own activities on their property, provided that the environmental effects of such disposal on ground water and surface waters are:

1. Addressed or authorized by a site certification issued under Chapter 403, Part II, F.S., Electrical Power Plant Siting;

2. Addressed or authorized by a permit issued by the Department, including solid waste management permits or other environmental permits modified to include conditions for proper disposal; or

3. Addressed or authorized by, or specifically exempted from the requirement to obtain, a ground water monitoring plan approved by the Department.

(c) On-site disposal of construction and demolition debris, provided that disposal conforms to Rule 17-701.730(3), F.A.C.

(d) Clean debris which is used as fill material.

(e) Disposal of solid waste resulting from normal farming operations.

(f) Storage of solid waste in containers on property which is owned, rented, or leased by the persons who generated the waste from their own activities which occurred on their property, if the solid waste in such containers is collected at least once a week.

(g) Disposal by persons of solid waste resulting from their own activities on their own property, if that waste disposal occurred before October 1, 1988.

(3) Responsible applicant.

In addition to the provisions of Rule 17-4.070(5), F.A.C., When determining whether the applicant has provided reasonable assurances that Department standards will be met, the Department shall consider repeated violations of applicable statutes, rules, orders, or permit conditions caused by a permit applicant after October, 1988, relating to the operation of any solid waste management facility in this state for which the applicant is deemed to be responsible. For purposes of this subsection, the following words have the following meanings:

(a) "Applicant" means the owner or operator of the solid waste management facility in this state, and includes a business entity, a parent of a subsidiary corporation, a partner, a corporate officer or director, or a stockholder holding more than 50 percent of the corporate stock.

(b) "Responsible" means that an applicant owned or operated a solid waste management facility in this state, including transportation equipment or mobile processing equipment used by or on behalf of the applicant, which was subject to a state or federal notice of violation, judicial action, or criminal prosecution for activities that constitute violations of Chapter 403, F.S., or the rules promulgated thereunder, and could have prevented the violation through reasonable compliance with Department rules.

(4) Modification of an approved permit. Nothing in this rule shall be construed to limit or prohibit modifications of a permit under the provisions of Rule 17-4.080, F.A.C.

(5) Permit application.

(a) Applications for a solid waste management facility shall be submitted on appropriate Department forms listed in Rule 17-701.900, F.A.C., to the Department district office with jurisdiction where the facility is located. A minimum of six copies each of the application, engineering plans and reports, and all supporting information for the proposed construction, substantial modification, operation or closure of a facility shall be provided to the Department.

(b) Information in every application shall be of sufficient detail to show how the facility will be constructed, operated, and closed, and how it will be monitored and maintained after closure, in order to comply with the requirements of this chapter.

(c) Combination facilities. An application for a permit to construct or operate a solid waste management facility having multiple solid waste management components which, if standing alone, would require solid waste management facility permits, shall include all information required to be submitted had each component been proposed as a separate facility, independent of the other components. Such information may be combined or otherwise presented so as to avoid duplicative or repetitive submittals. Additionally, such applications shall be accompanied by such fees as would be required for each facility component; however, the total permit fees for a facility shall not exceed $25,000, exclusive of modifications and renewals.

(6) Engineer of record and professional certification. All engineering plans, reports, and information supporting the application shall be compiled by the engineer of record who shall be responsible for assurance that all technical components have been prepared under the direction and supervision and signed and sealed by the professional registered in Florida in each contributing technical discipline. The engineer of record's signature and seal of the application shall assure that all appropriate technical professional disciplines have been employed in development of the application. The application shall provide that the engineer of record or another qualified professional shall make periodic inspections during construction of the facility to ensure that design integrity is maintained.

(7) Application content and format. Applications for permits to construct, operate, modify, or close a solid waste management facility shall include in the following sequence:

(a) A letter of application transmittal;

(b) A completed application form dated and signed by the applicant;

(c) The permit fee specified in Rule 17-4.050, F.A.C., in check or money order, payable to the Department.

(d) An engineering report addressing the requirements of this rule which shall:

1. Contain a cover sheet stating the project title, location, applicant's name, and the engineer's name, address, signature, date of signature and seal;

2. Have the text printed on 8 1/2 inch by 11 inch consecutively numbered pages;

3. Contain a table of contents or index describing the body of the report and the appendices; and

4. Include the body of the report and all appendices.

(e) Appendices submitted as part of an engineering report to support a permit application shall contain, where required under applicable sections of this rule:

1. An operation plan appropriate for the type of facility;

2. A contingency plan appropriate for the type of facility to cover operations interruptions and emergencies such as fires, explosions, or natural disasters;

3. Illustrative charts and graphs;

4. Records or logs of tests, soil borings, hydrogeological information, geochemical surveys, and water quality analyses; and

5. Engineering calculations, including literature citations.

(f) Plans or drawings for all solid waste management facilities shall:

1. Use sheets 22 inches by 34 inches or 24 inches by 36 inches, and include title blocks;

2. Have a cover sheet that includes the project title, applicant's name, sheet index, legend of symbols, and the engineer's name, address, signature, date of signature and seal;

3. Include a regional map or plan showing the project location;

4. Include a current vicinity map, or aerial photograph taken within one year preceding the application;

5. Have a site plan containing the location of all property boundaries certified by a registered Florida land surveyor; and

6. Clearly show all necessary details and be numbered, titled, and referenced to the narrative report. Drawings shall contain a north arrow and horizontal and vertical scales, and shall specify drafting or origination dates. All elevations shall be referenced to National Geodetic Vertical Datum.

(g) Proof of property ownership, or a copy of any lease agreement, transfer of property agreement with right of entry for long-term care, interlocal government agreement, or any other agreement between the facility operator and property owner which may affect the facility; and

(h) For facilities owned or operated by a county, a description of the existing or proposed recycling facilities or activities, if any, at the site and a description of whether, and the extent to which, these recycling facilities or activities will contribute to the county's achievement of the recycling goals contained in Section 403.706, F.S.

(i) For purposes of the evaluation required in subsection (3) of this section, a history and description of any enforcement actions described in subsection (3) of this section relating to solid waste management facilities in this state.

(8) Notice of application.

(a) An applicant for a permit to construct or substantially modify a solid waste management facility shall publish and provide proof of publication to the Department of a Notice of Application in a newspaper of general circulation in the area where the facility will be located, in accordance with Rule 17-103.150, F.A.C.

(b) For all landfills, the Department shall mail a notice of receipt of permit application to the Chair of the Board of County Commissioners, the highest ranking elected official of the municipality, and each State Senator and Representative serving the jurisdiction in which the project is located. After the Department completes the permit review, a copy of the notice of intent to issue or deny the permit will also be sent to these same officials.

(9) Permits for construction, modification, operation, and closure. Complete permit applications for construction or operation of a solid waste management facility, renewal of an operation permit for an existing facility, modification of an existing facility, or closure of a facility shall be evaluated by the respective Department district office in accordance with Chapters 17-4 and 17-701, F.A.C. The Department shall:

(a) Issue a construction permit, or a construction/operation permit for a solid waste management facility, or for a substantial modification of an existing solid waste management facility. After all specified construction has been completed and before acceptance of any solid waste, the owner or operator shall submit to the Department a certification of construction completion, Form 17-701.900(2), signed and sealed by a professional engineer,

and any modifications of the record drawings, and shall arrange for Department representatives to inspect the facility in the company of the permittee, the engineer, and the proposed facility operator. The facility shall not be operated until the certification has been submitted and approved, all documentation required as a condition of the permit has been submitted, and a facility inspection by Department personnel has been conducted; or

(b) Issue an operation permit for a new facility that has been satisfactorily constructed, or to an existing facility which is being operated in accordance with this chapter at the time for permit renewal; or

(c) Issue a closure permit for closing and long-term care of a landfill which complies with the requirements of Rules 17-701.600 - .620, F.A.C.; or

(d) Deny the issuance of a permit if reasonable assurances are not provided that the requirements of Chapters 17-4 and 17-701, F.A.C., will be satisfied.

(10) Identification number. The Department shall assign an identification number to each solid waste management facility that receives a permit. The number shall be unique to that facility, and shall remain assigned to that facility at all times. The identification number shall be used on all correspondence and records related to that facility.

(11) Local zoning. The Department does not evaluate compliance with local zoning or land use ordinances when determining whether to issue or deny any permit under this chapter. Issuance of a permit does not relieve an applicant from compliance with local zoning or land use ordinances, or with any other laws, rules, or ordinances.

(12) Airport safety.

(a) Applicability. This subsection applies to those facilities constructed after January 6, 1993, as well as lateral expansions of facilities which were constructed prior to January 6, 1993.

(b) Solid waste management facilities where waste is stored, disposed, or processed outdoors, shall not be located within 10,000 feet of any licensed and operating airport runway used by turbine powered aircraft, or within 5,000 feet of any licensed and operating airport runway used only by piston engine aircraft, unless the applicant demonstrates that the facility is designed and will be operated so that it does not pose a bird hazard to aircraft.

(c) Applicants proposing to site new landfills and lateral expansions of existing landfills within a five-mile radius of any licensed and operating airport runway used by turbine powered or piston engine aircraft shall notify the affected airport, the Federal Aviation Administration, and

the Florida Department of Transportation when the application is filed with the Department, and shall provide evidence of such notification to the Department.

(13) Other facility permits. In addition to the exemptions in subsection (2) of this section, the following solid waste management facilities which are constructed and operated under an appropriate and currently valid permit are not required to obtain a separate solid waste permit pursuant to this chapter:

(a) Incinerators which are constructed and operated under a permit issued pursuant to Chapters 17-296 or 17-256, F.A.C.; however, if the facility is also storing or disposing of solid waste on the site, and such storage or disposal is not addressed in the permit, a separate solid waste permit is required;

(b) Incinerators which are constructed and operated under a site certification pursuant to Chapter 403, Part II, F.S.;

(c) Solid waste management facilities, such as composting facilities, waste tire processing facilities, used oil recycling facilities, and biohazardous waste treatment or storage facilities, which are required to obtain permits under Rules 17-702 through 17-729, F.A.C.

Specific Authority: 403.061, 403.704, F.S.
Law Implemented: 403.702, 403.704, 403.707, F.S.
History: New 1-6-93.

17-701.330 Landfill Permit Requirements.

(1) Applicability.

(a) Except as otherwise specifically provided herein, this chapter shall apply to all solid waste disposal units constructed or operated under a landfill permit issued after January 6, 1993, including renewals of existing permits.

(b) All holders of landfill construction or operation permits issued prior to January 6, 1993, which contain conditions not in conformance with this chapter shall apply for modification of the permit to conform to this chapter to the District Office of the Department which issued the permit. The submission shall occur at the time of application for renewal of an existing permit, or before July 6, 1993, whichever is later. For purposes of this paragraph, a permit issued prior to January 6, 1993, is deemed to include a completed permit application received by the Department prior to January 6, 1993.

(c) Rules 17-701.400 - .420, F.A.C., shall not apply to any solid waste disposal unit for which construction is completed prior to the later of the dates specified in

17-701.320(12)(c)(cont'd.) - 17-701.330(1)(c)

paragraph (b) of this subsection. Such solid waste disposal unit may be operated until filled to its permitted or modified design dimensions which, if such unit is lined, may include any future vertical expansion over the liner in accordance with Rule 17-701.430, F.A.C.

(d) Facilities operating pursuant to a Consent Order with the Department in effect on January 6, 1993, shall continue to operate in accordance with the order until the order expires by its own terms, provided the landfill is in compliance with the terms and conditions of the order. If the facility owner or operator fails to comply with any substantive term or condition of the order, the facility covered by the order must comply with the operational, closure and long-term care requirements of this chapter.

(2) Term of permit. The time period for permits shall be no longer than five years from the date of issuance by the Department. Permits may be issued for a shorter period for specific circumstances.

(3) Permit renewals.

(a) Construction/operation permits shall be renewed at least every five years. Applicants for permit renewal shall demonstrate how they will comply with any applicable new or revised laws or rules relating to construction, operation, or closure of landfills. Closure plans shall be updated at the time of permit renewal to reflect changes in closure design, long-term care requirements, and financial responsibility documentation.

(b) Facility information that was submitted to the Department to support the expiring permit, and which is still valid, does not need to be re-submitted for permit renewal. The permit renewal application shall list and reaffirm that the information is still valid.

(4) Permit applications. Permit applications for landfills shall meet the requirements of Rule 17-701.320, F.A.C., and shall also include the following specific requirements:

(a) A vicinity map or aerial photograph not more than one year old which shows land use and local zoning within one mile of the landfill and is of sufficient scale to show all homes or other structures, water bodies, roads, and other significant features of the vicinity. All significant features shall be labeled.

(b) A vicinity map or aerial photograph not more than one year old which shows all airports that are located within five miles of the proposed landfill.

(c) A plot plan of the site showing dimensions, locations of proposed and existing water quality monitoring wells or points, locations of soil borings, proposed plan of trenching or disposal areas, original elevations, proposed

17-701.330(1)(c)(cont'd.) - 17-701.330(4)(c)

final contours, any previously filled waste disposal areas, and fencing. Cross sections shall be included on the plot plan or on separate sheets showing both the original and proposed fill elevations. The scale of the plot plan shall not be greater than 200 feet to the inch.

(d) Topographic maps at a scale of not greater than 200 feet to the inch with 5-foot contour intervals. These maps shall show the proposed fill area, any borrow area, access roads, grades required for proper drainage and cross sections of lifts, special drainage devices if necessary, fencing, and equipment facilities.

(e) A report on the:

1. Current and projected population and area to be served by the proposed site;

2. Anticipated type, annual quantity, and source of solid waste, expressed in tons;

3. Anticipated life of the facility; and

4. Source and type of cover material.

(f) The Hydrogeological investigation and ground water monitoring plan required by Rule 17-701.410 and .510, F.A.C.

(g) The Geotechnical investigation required by Rule 17-701.420, F.A.C.

(h) Evidence of an approved laboratory to do water quality monitoring in accordance with Rule 17-160, F.A.C.

(i) A statement of how the applicant will demonstrate financial responsibility for the closing and long-term care of the landfill.

(5) Modification of landfill permit. Permits shall be modified in accordance with the requirements of Rule 17-4.080, F.A.C. A modification which is reasonably expected to lead to substantially different environmental impacts which require a detailed review by the Department is considered a substantial modification.

(6) On-site records. A copy of the Department approved permit, engineering drawings, operational plan, and supporting information shall be kept at the facility at all times for reference and inspections.

Specific Authority: 403.061, 403.704, F.S.
Law Implemented: 403.702, 403.704, 403.707, F.S.
History: New 1-6-93.

17-701.340 General Criteria For Landfills.

(1) Performance standards. A landfill shall be designed, constructed, operated, maintained, closed, and monitored throughout its design period to control the movement of waste and waste constituents into the environment so that ground water and surface water quality standards and criteria of Chapters 17-3 and 17-302, F.A.C., will not be violated beyond the zone of discharge specified for the landfill.

17-701.330(4)(c)(cont'd.) - 17-701.340(1)

(2) Minimum ground water criteria. For those landfills or solid waste disposal units which are constructed after January 6, 1993, and which are constructed with at least a double or composite liner, the minimum ground water criteria specified in Rule 17-3.402, F.A.C., shall apply only outside of the footprint of the solid waste disposal unit, or if the unit is surrounded by a perimeter road, outside the perimeter road, notwithstanding the provisions of Rule 17-3.404, F.A.C.

(3) Classification of landfills. Landfills or solid waste disposal units are classified according to the amount or types of waste received.

(a) Class I landfills are those which receive an average of 20 tons or more of solid waste per day.

(b) Class II landfills are those which receive an average of less than 20 tons of solid waste per day.

(c) Class I and Class II landfills receive general, non-hazardous household, commercial, industrial, and agricultural wastes, subject to the restrictions of Rules 17-701.300 and 17-701.520, F.A.C.

(d) Class III landfills are those which receive only yard trash, construction and demolition debris, shredded waste tires, asbestos, carpet, cardboard, paper, glass, plastic, furniture other than appliances, or other materials approved by the Department which are not expected to produce leachate which poses a threat to public health or the environment. The Department may exempt Class III landfills from some or all of the requirements for liners, leachate controls, and water quality monitoring in Rules 17-701.400(3) and (4), and 17-701.510, F.A.C., if it determines based upon the types of waste received, methods for controlling types of waste disposed of, and the results of the hydrogeological and geotechnical investigations required in Rules 17-701.410 and 17-701.420, F.A.C., that no significant threat to the environment will result from such exemption. Yard trash composting facilities shall be operated in accordance with Chapter 17-709, F.A.C. Owners or operators of Class III landfills which are operating on January 6, 1993, shall apply for modification of their permits to comply with this paragraph no later than January 6, 1994.

(4) Location requirements.

(a) The site shall provide structural support for the facility including total wastes to be disposed of and structures to be built on the site.

(b) A landfill or solid waste disposal unit shall not be located in the 100-year floodplain where it will restrict the flow of the 100-year flood, reduce the temporary water storage capacity of the floodplain unless compensating storage is provided, or result in a washout of solid waste.

17-701.340(2) - 17-701.340(4)(b)

(c) The minimum horizontal separation between waste deposits in a landfill and the landfill property boundary shall be 100 feet, measured from the toe of the proposed final cover slope.

(d) Landfills shall be screened from public view where such screening can practically be provided.

(5) Zone of discharge. A landfill's zone of discharge shall be determined pursuant to Chapter 17-522, F.A.C. For all solid waste disposal units constructed after January 6, 1993, the zone of discharge shall not exceed 100 feet from the edge of those solid waste disposal units permitted to be constructed.

Specific Authority: 403.061, 403.704, F.S.
Law Implemented: 403.702, 403.704, 403.707, F.S.
History: New 1-6-93.

17-701.400 Landfill Construction Requirements.

(1) Minimum design standards. The requirements of this rule are the minimum standards for constructing a landfill. Nothing in this rule shall be construed to prevent the Department from imposing more stringent standards as necessary to protect the environment and the public health and safety due to site specific conditions and types of wastes to be disposed of in the landfill or solid waste disposal unit. An applicant whose landfill design meets the design standards of this rule will be presumed to provide reasonable assurance that the performance standards of Rule 17-701.340(1), F.A.C., will be met.

(2) Planned construction and closure. All landfills shall be designed so that solid waste disposal units will be constructed and subsequently closed at planned intervals throughout the design period of the landfill.

(3) Landfill liner requirements. Landfills shall be constructed with composite or double liners, and a leachate collection and removal system.

(a) Liners shall be:

1. Constructed of materials that have appropriate physical, chemical, and mechanical properties to prevent failure due to physical contact with the waste or leachate to which they are exposed, climatic conditions, the stress of installation, and other applied stresses and hydraulic pressures which are anticipated during the operational and closure period of the solid waste disposal unit. The supplier of materials for the liner components shall provide test information accepted by the engineer of record, that supports the capabilities of the materials to meet these needs;

17-701.340(4)(c) - 17-701.400(3)(a)1.

2. Installed upon a base and in a geologic setting capable of providing structural support to prevent overstressing of the liner due to settlements and applied stresses;

3. Constructed so that the bottom of the liner system is not subject to fluctuations of the ground water so as to adversely impact the integrity of the liner system.

4. Designed to resist hydrostatic uplift if the liner is located below the seasonal high ground water table; and

5. Installed to cover all surrounding earth which could come into contact with the waste or leachate.

(b) Composite liners.

1. The upper component of the composite liner shall be a 60-mil or thicker geomembrane liner with a maximum water vapor transmission rate of 0.24 grams per square meter per day ($g/(m^2 \times day)$) as determined by ASTM Method E96-80, procedure BW, "Test Methods for Water Vapor Transmission of Materials," Sections 04.06, 08.03, and 15.09. A primary leachate collection and removal system and a drainage layer shall be installed above the geomembrane liner. Except in sumps and leachate collection trenches, the system shall be designed to limit leachate head above the liner during routine landfill operation after placement of initial cover, as specified in Table A below, depending upon the thickness and hydraulic conductivity of the lower component of the composite liner. Leachate head calculations shall consider leachate recirculation if the leachate is recirculated.

2. The lower component of the composite liner shall be constructed in six-inch lifts. The thickness of the lower component may be varied in relation to the hydraulic conductivity of the lower component and the design leachate head above the liner, in accordance with Table A.

TABLE A:
Minimum Thickness of Lower Component of
Composite Liner (in feet)

Maximum Design Hydraulic Head (in inches)	Maximum Hydraulic Conductivity (cm/sec)		
	1×10^{-7}	5×10^{-8}	1×10^{-8}
1	2	1	1
6	2.5	1.5	1
12	3	2	1

17-701.400(3)(a)2. 17-701.400(3)(b)2.

(c) Double liners.

1. Double liner systems shall consist of upper and lower 60-mil minimum thickness geomembranes with a maximum water vapor transmission rate of 0.24 g/(m^2 x day); a primary leachate collection and removal system lying above the upper geomembrane designed to limit the leachate head to one foot above the liner during routine landfill operations after placement of initial cover, except in sumps and leachate collection trenches; and a leak detection and secondary leachate collection system between the upper and lower liners. The lower geomembrane shall be placed directly on a sub-base which is a minimum six inches thick and has a saturated hydraulic conductivity of less than or equal to 1 x 10^{-5} cm/sec.

2. The leak detection and secondary leachate collection system shall have a minimum hydraulic conductivity of one cm/sec, shall be designed to limit the maximum hydraulic head on the lower liner to one inch, and shall not allow leachate head to exceed the thickness of the drainage layer. The hydraulic conductivity of the leak detection and secondary collection system material shall be derived from transmissivity and thickness measurements.

(d) Standards for geomembranes.

1. Geomembranes shall have factory and field seams whose shear strengths during testing are at least 90 percent of the specified minimum yield strength for that lining material, and the failure shall occur in the lining material outside the seam area. All field seams must also be visually inspected and pressure or vacuum tested for seam continuity using suitable non-destructive techniques.

2. Geomembranes shall be protected from physical damage by placing a minimum 24-inch-thick protective layer above the upper liner. All materials in direct contact with the liner shall be free of sharp materials or any materials larger than one-half inch. The upper 12 inches of the protective layer shall be composed of soil, tire chips four square inches or smaller with no protruding wires, or other materials approved by the Department which are permeable, non-reactive, stable, and which offer protection for the liner from punctures.

3. The first layer of waste placed on the protective layer above the liner and leachate collection system shall be a minimum of four feet in compacted thickness, and consist of selected wastes containing no large, rigid objects that may damage the liner or leachate collection system. Materials that could damage the liner shall be removed from this layer.

17-701.400(3)(c) - 17-701.400(3)(d)3.

(e) The following specifications shall be provided for geosynthetic components:

1. Definition and qualifications of the designer, manufacturer, installer, geosynthetic quality assurance consultant, geosynthetic quality assurance laboratory, and quality assurance program;

2. Material specifications for geomembranes, geotextiles, geogrids, and geonets, including general requirements, specified geomembrane properties, and labelling;

3. Manufacturing and fabrication specifications including:

a. Geomembrane manufacturing, including raw material and roll quality control;

b. Geomembrane fabrication, including requirements of personnel, seaming equipment and products, seam preparation, weather conditions for factory seaming, overlapping and temporary bonding, trial seams, and nondestructive seam continuity testing;

c. Destructive seam strength testing including location and frequency, sampling procedure, size of samples, testing at the fabrication factory, laboratory testing, fabricator's laboratory testing, and procedures for destructive test failure; and

d. Repairs.

4. Geomembrane installation specifications including

a. Earthwork;

b. Conformance testing;

c. Geomembrane placement, which shall address layout drawings, panel identification, and field panel placement;

d. Field seaming, which shall address seam layout, requirements of personnel, overlapping and temporary bonding, seam preparation, seaming equipment and products, weather conditions for seaming, trial seams, general seaming procedures, nondestructive seam continuity testing, destructive testing, and defects and repairs including identification, evaluation, and repair procedures;

e. Materials in contact with the geomembrane, including granular materials, concrete, and sumps and appurtenances; and

f. Lining system acceptance.

5. Geotextile and geogrid specifications including handling and placement, conformance testing, seams and overlaps, repair, and placement of soil materials.

6. Geonet specifications including handling and placement, conformance testing, stacking and joining, repair, and placement of soil materials.

(f) Standards for soil components.

17-701.400(3)(e) - 17-701.400(3)(f)

1. Soil components of liner systems shall be constructed to preclude, to the greatest extent practicable, lenses, cracks, channels, root holes, pipes, or other structural inconsistencies that can increase the saturated hydraulic conductivity of the soil component. The design shall illustrate and describe those instances in which overexcavation of permeable areas and backfilling may be necessary to seal the permeable area. The soil component shall be placed and compacted in layers to achieve the design performance.

2. The permeability of soil liner components shall not be increased above the values specified for the component, as a result of contact with leachate from the solid waste disposal unit. Compatibility of the soil component and leachate shall be demonstrated by testing the soil component with actual or simulated leachate in accordance with EPA Test Method 9100 or an equivalent test method.

3. The soil component of the liner system may consist of in-situ soils, provided they meet the specifications for soil liners. Testing of in-situ soil shall be performed in accordance with the site specific Construction Quality Assurance Plan in accordance with Rule 17-701.400(7), F.A.C.

4. Specifications for the soil component of the liner system shall be provided to and approved by the Department, and shall contain at a minimum:

a. Allowable range of particle size distribution and Atterberg limits, to include shrinkage limit;

b. Placement moisture criteria and dry density criteria;

c. Maximum laboratory-determined saturated hydraulic conductivity, using simulated leachate as the saturating and testing liquid;

d. Minimum thickness of the soil liner;

e. Lift thickness;

f. Surface preparation (scarification) for tying lifts together; and

g. Type and percentage of clay mineral within the soil component.

5. The soil liner shall be placed using construction equipment and procedures that achieve the required saturated hydraulic conductivity and thickness. A field test section shall be constructed using the proposed construction equipment and tested to document that the desired saturated hydraulic conductivity and thickness is achieved in the field. Test results shall be submitted to and approved by the Department along with the completion of construction documents.

(4) Leachate collection and removal system. Landfills shall have a leachate collection and removal system that is designed, constructed, maintained, and operated to collect leachate and convey it to collection points for removal.

17-701.400(3)(f)1. - 17-701.400(4)

(a) The primary and secondary leachate collection and removal systems shall:

1. Be constructed of materials that are chemically resistant to the waste disposed of in the landfill and the leachate expected to be generated;

2. Have sufficient mechanical properties to prevent collapse under pressures exerted by overlying wastes, cover materials, and by any equipment used at the landfill;

3. Have granular material or synthetic geotextile filter overlying or surrounding the leachate collection and removal system to prevent clogging of the collection system by infiltration of fine particles from the waste; and

4. Have a method to test that the pipes in the system are not clogged, and a method for cleaning the pipes in the system if they become clogged. If any part of the system cannot be tested for clogging, the design shall assure that leachate can be rerouted from that part to a leachate sump in the event of collapse.

(b) The primary leachate collection and removal system shall have a granular drainage layer above the top geomembrane liner, at least 12 inches thick, with a hydraulic conductivity of not less than 1×10^{-3} cm/sec, overlain with an additional 12 inches of soil or other material approved by the Department to provide a total protective layer 24 inches thick, that is chemically resistant to the waste and leachate. It shall be designed with a bottom slope to achieve the required leachate head after the predicted settlement determined by the foundation analysis. Leachate collection systems incorporating synthetic drainage materials may be used if it can be demonstrated that they are equivalent to or more effective than the granular design, including chemical compatibility, flow under load, and protection of the geomembrane liner.

(5) Leachate recirculation. Leachate recirculation systems shall only be used at solid waste disposal units that have been designed for leachate recirculation and meet the following requirements:

(a) The landfill shall be lined and have a leachate collection and removal system.

(b) Ditches, berms, or other devices shall be installed to control any leachate runoff. Initial and intermediate cover receiving recirculated leachate shall be graded to shed runoff into the leachate collection system and to minimize mixing of leachate runoff and storm water.

(c) Initial and intermediate cover shall be permeable to the extent necessary to prevent perched water conditions and gas buildup.

17-701.400(4)(a) - 17-701.400(5)(c)

(d) Leachate shall not be recirculated during weather conditions or in quantities that may cause runoff outside the solid waste disposal unit, surface seeps, wind-blown spray, or exceedance of the limits of the leachate head on the liner. Ponding is prohibited unless it is an integral part of the design plan.

(e) A gas management system shall be implemented to control odors and migration of methane.

(f) Recirculation of leachate is prohibited on top of areas where final cover has been applied. Irrigation of the final vegetative cover may be done with treated leachate which meets the water quality standards of the receiving water body, if such irrigation does not contribute significantly to leachate generation.

(6) Leachate storage tanks and leachate surface impoundments.

(a) The requirements of this subsection apply to all leachate storage tanks and leachate surface impoundments constructed after January 6, 1993. Leachate storage tanks in use on January 6, 1993 are not required to retrofit to comply with this subsection unless leakage, corrosion or other defects are found. Leachate storage impoundments in use on January 6, 1993 shall be replaced or modified to conform to this subsection by January 6, 1995.

(b) Surface impoundments for leachate treatment or storage that are located at landfills are subject to the following requirements:

1. Surface impoundments shall be constructed so that the bottom of the liner system is not subject to fluctuations of the ground water so as to adversely impact the integrity of the liner system. The applicant shall demonstrate that the surface impoundment design will minimize infiltration of leachate into the environment so that ground water and surface water quality standards and criteria are not violated.

2. The surface impoundment shall be designed in segments such that any one segment may be taken out of service for inspection and repair with no interruption of service.

3. The impoundment shall have a double liner system consisting of an upper and lower 60-mil minimum thickness geomembrane, and a leak detection and collection system between the geomembranes with a minimum hydraulic conductivity of one cm/sec. The lower geomembrane shall be placed directly on a subbase which is at least six inches thick and has a saturated hydraulic conductivity of less than or equal to 1×10^{-5} cm/sec. The leak detection and collection system shall be checked daily. The design of the upper liner shall include calculations to predict the potential leakage through the upper liner. If the daily

17-701.400(5)(d) - 17-701.400(6)(b)3.

checks indicate the upper liner is leaking at a rate greater than predicted by the design calculations, the Department shall be notified. If the leakage rate will result in the flooding of the leak detection and collection system, the impoundment shall be emptied and the liner repaired.

4. To preserve the liner integrity and prevent uplift, ballast material such as rounded gravel or sand, that will not cause damage to the geomembrane liner, shall be placed on top of any liner which is located below the water table.

5. A minimum of two feet of freeboard above the depth which would occur in the event of a 25-year, 24-hour storm shall be maintained in leachate surface impoundments.

6. Vectors and off-site odors shall be controlled.

(c) Above ground leachate storage tanks that are located at solid waste management facilities are subject to the following requirements:

1. Tanks shall be constructed of concrete, steel or other material approved by the Department. Tanks shall be supported on a well drained, stable foundation.

2. Bottoms of steel tanks that rest on earthen material shall be cathodically protected with either sacrificial anodes or an impressed current system which is designed, fabricated, and installed in accordance with an engineering plan approved by the Department.

3. The exterior surfaces of all steel storage tanks shall be protected by a primer coat, a bond coat, and two or more final coats of paint or other surface coating system designed to prevent corrosion and deterioration.

4. The interior of all tanks shall consist of a material or must be lined with a material, resistant to the liquid being stored.

5. All aboveground tanks shall have a secondary containment system which may consist of dikes, liners, pads, ponds, impoundments, curbs, ditches, sumps, or other systems capable of containing the stored leachate. The design volume for the secondary containment system shall be 110 percent of the volume of either the largest tank within the containment system or the total volume of all interconnected tanks, whichever is greater.

6. The secondary containment system shall be constructed of materials compatible with the liquid stored. The containment system shall be constructed of either:

a. A minimum three-foot layer of compacted soil with a maximum saturated hydraulic conductivity of 1×10^{-7} cm/sec or one foot of compacted soil with a maximum saturated hydraulic conductivity of 1×10^{-8} cm/sec with two feet of protective cover; or

b. A concrete pad that will maintain its integrity for the lifetime of the tank with a corrosion resistant coating; or

17-701.400(6)(b)3.(cont'd.) - 17-701.400(6)(c)6.b.

c. A geomembrane of a minimum thickness of 60 mils, with a maximum water vapor transmission rate of 0.24 g/(m^2 x day).

7. A system shall be designed to contain and remove storm water from the secondary containment area. Provisions shall be included for the removal of any accumulated precipitation and be initiated within 24 hours or when 10 percent of the storage capacity is reached; whichever occurs first. Disposal of this stormwater shall be in accordance with the requirements of Rule 17-701.400(9), F.A.C.

8. All aboveground tanks shall be equipped with an overfill prevention system which includes level sensors and gauges, high level alarms, or automatic shutoff controls. The overfill control equipment shall be inspected weekly by the facility operator to ensure it is in good working order.

9. The exposed exterior of all aboveground tanks shall be inspected weekly by the facility operator for adequacy of the cathodic protection system, leaks, corrosion, and maintenance deficiencies. Interior inspection of tanks shall be performed whenever the tank is drained or at a minimum of every three years. If the inspection reveals a tank or equipment deficiency, leak, or any other deficiency which could result in failure of the tank to contain the leachate, remedial measures shall be taken immediately to eliminate the leak or correct the deficiency. Inspection reports shall be maintained and made available to the Department upon request for the lifetime of the liquid storage system.

(d) Underground leachate storage tanks that are located at solid waste management facilities are subject to the following requirements:

1. Tanks shall be constructed of concrete, fiberglass, reinforced plastic, steel that is cathodically protected, or steel that is clad with fiberglass.

2. A secondary containment and a continuous leak detection system shall be installed in the form of a double-walled tank, designed as an integral structure so that any release from the inner tank is completely contained by the outer shell.

a. The interstitial space shall be monitored at least once per week by the facility operator for tightness using pressure monitoring, vacuum monitoring, electronic monitoring or an approved equivalent method.

b. The tank system shall be protected from both corrosion of the primary tank interior and the external surface of the outer shell.

c. All resistant coatings applied to the primary tank interior shall be compatible with the stored leachate.

17-701.400(6)(c)6.c. - 17-701.400(6)(d)2.c.

d. Cathodic protection systems, where installed, shall be inspected at least weekly by the facility operator. Any deficiency in the cathodic protection system shall be corrected when discovered.

3. All underground tanks shall be equipped with an overfill prevention system which includes level sensors and gauges, high level alarms, or automatic shutoff controls. The overfill control equipment shall be inspected weekly by the facility operator to ensure it is in good working order.

4. Inspection and leak detection monitoring reports shall be maintained at the facility and made available to the Department upon request for the lifetime of the liquid storage system.

(e) A schedule for routine maintenance of the leachate collection and removal system shall be established to ensure operation of the system. The maintenance schedule shall be a part of the facility operation plan.

(7) Liner systems construction quality assurance.

(a) Liner systems shall have a construction quality assurance plan to provide personnel with adequate information to achieve continuous compliance with the liner construction requirements. The plan shall include or refer to specifications and construction methods which use established engineering practices to construct a liner system and provide for quality control testing procedures and sampling frequencies. Sampling and testing shall be conducted in the field by trained personnel during construction and after construction completion. Such personnel will be under the direction of the construction quality assurance professional engineer, to assure the liner system will comply with the standards. The engineer or his designee shall be on-site at all times during construction to monitor construction activities.

(b) Liner systems shall be installed in accordance with a Department-approved construction quality assurance plan. Plans that comply with EPA Document 530-SW-86-031 shall be presumed to be in compliance with this section. The following minimum specific elements shall be included in the plan:

1. Responsibility and authority of all organizations and key personnel involved in permitting, designing, constructing, and providing construction quality assurance of the waste disposal facility shall be described fully;

2. Minimum qualifications of the construction assurance quality professional engineer and supporting personnel shall be in the plan to demonstrate that they possess the training and experience necessary to fulfill their identified responsibilities;

17-701.400(6)(d)2.d. - 17-701.400(7)(b)2.

3. Procedures and tests that will be used to monitor the installation of the liner system components shall be described in detail;

4. The sampling activities, sample size, sample locations, frequency of testing, acceptance and rejection criteria, and plans for implementing corrective measures that may be necessary shall be described; and

5. Reporting requirements for construction quality assurance activities shall be described, including daily summary reports, observation data sheets, problem identification and corrective measures, and final documentation. All such documents shall be included in the final report which shall be forwarded to the Department.

(c) A laboratory experienced in the testing of geosynthetics, independent of the liner manufacturer and installer, shall perform the required testing which must include, at a minimum, conformance testing for all geosynthetics and geocomposites, and testing of seam shear and peel strength for geomembranes.

(d) The professional engineer in charge of construction quality assurance shall provide a signed, sealed final report and record drawings to the Department stating that the liner system has been installed in substantial conformance with the plans and specifications for the liner system.

(8) Soil liner construction quality assurance. In addition to the requirements of subsection (7) above, the following requirements apply to construction of the soil component of liner systems. All required testing and analysis shall be performed in accordance with generally accepted engineering procedures, such as those promulgated by the American Society for Testing and Materials (ASTM). Parenthetic references to ASTM methods are intended as guidance only.

(a) A construction quality assurance/quality control plan shall be prepared for each soil liner project to outline project specifications and construction requirements. The plan shall specify performance criteria for the soil liner, and provide quality control testing procedures and minimum sampling frequencies. In addition, the plan shall define the responsibilities of the parties that will be involved in soil liner construction, and shall present minimum qualifications of each party to fulfill their identified responsibilities.

(b) Field and laboratory testing during liner construction shall be conducted by a qualified soil testing laboratory representing the owner. A qualified field technician representing the owner shall provide full time, on-site inspection during liner construction. The field

17-701.400(7)(b)3. - 17-701.400(8)(b)

technician shall work under the supervision of a professional engineer with experience in soil liner construction.

(c) Prior to soil liner installation, an appropriate borrow source shall be located. Suitability of the liner construction materials from that source shall be determined in accordance with the following:

1. If demonstrated field experience is available from at least three prior successful projects of five or more acres each to document that a given borrow source can meet the requirements of the project specifications, then extensive laboratory testing of the borrow source will not be required. However, the source of material shall be geologically similar to and the methods of excavating and stockpiling the material shall be consistent with those used on the prior projects. Furthermore, a minimum of three representative samples from the appropriate thickness of the in-situ stratum or from stockpiles of the borrow material proposed for liner construction shall be submitted to an independent soil testing laboratory to document through index testing that the proposed material is consistent with the material used on prior successful projects. At a minimum, index testing shall consist of percent fines, Atterberg limits and moisture content determinations.

2. If demonstrated field experience as defined above is not available or cannot be documented, then the following requirements shall be met.

a. A field exploration and laboratory testing program shall be conducted by an independent soil testing laboratory to document the horizontal and vertical extent and the homogeneity of the soil strata proposed for use as liner material. A sufficient number of index tests from each potential borrow stratum shall be performed to quantify the variability of the borrow materials and to document that the proposed borrow material complies with specifications. At a minimum, the index tests shall consist of percent fines, Atterberg limits and moisture content determinations.

b. Sufficient laboratory hydraulic conductivity tests shall be conducted on samples representative of the range invariability of the proposed borrow source (ASTM D-5084). For each such sample, test specimens shall be prepared and tested to cover the range of molding conditions (moisture content and dry density) required by project specifications. The hydraulic conductivity tests shall be conducted in triaxial type permeameters. The test specimens shall be consolidated under an isotropic consolidation stress no greater than 10 pounds per square inch and permeated with water under an adequate backpressure to achieve saturation

17-701.400(8)(b)(cont'd.) - 17-701.400(8)(c)2.b.

of the test specimens. The inflow to and outflow from the specimens shall be monitored with time and the hydraulic conductivity calculated for each recorded flow increment. The test shall continue until steady state flow is achieved and relatively constant values of hydraulic conductivity are measured (ASTM D-5084). The borrow source will only be considered suitable if the hydraulic conductivity of the material, as documented on laboratory test specimens, can be shown to meet the requirements of the project specifications at the 98 percent confidence level.

(d) Prior to full-scale liner installation, a field test section or test strip shall be constructed at the site above a prepared subbase. The test strip shall be considered acceptable if the measured hydraulic conductivities of undisturbed samples from the test strip meet the requirements of the project specifications at the 98 percent confidence level. If the test section fails to achieve the desired results, additional test sections shall be constructed in accordance with the following requirements:

1. The test section shall be of sufficient size such that full-scale liner installation procedures can be duplicated within the test section;

2. The test section shall be constructed using the same equipment for spreading, kneading and compaction and the same construction procedures (e.g., number of passes, moisture addition and homogenization, if needed) that are anticipated for use during full-scale liner installation;

3. At a minimum, the liner test section shall be subject to the following field and laboratory testing requirements:

a. A minimum of five random samples of the liner construction material delivered to the site during test section installation shall be tested for moisture content (ASTM D-2216), percent fines (ASTM D-1140) and Atterberg limits (ASTM D-4318);

b. At least five field density and moisture determinations shall be performed on each lift of the compacted liner test section;

c. Upon completion of the test section lift, the thickness of the lift shall be measured at a minimum of five random locations to check for thickness adequacy; and

d. A minimum of five Shelby tube or drive cylinder (ASTM D-2937) samples shall be obtained from each lift of the test section for laboratory hydraulic conductivity testing. Laboratory hydraulic conductivity testing shall be conducted in triaxial type permeameters (ASTM D-5084). The test specimens shall be consolidated under an isotropic consolidation stress no greater than 10 pounds per square inch and permeated with water under an adequate backpressure

17-701.400(8)(c)2.b.(cont'd.) - 17-701.400(8)(d)3.d.

to achieve saturation of the test specimens. The inflow to and outflow from the specimens shall be monitored with time and the hydraulic conductivity calculated for each recorded flow increment. The test shall continue until steady state flow is achieved and relatively constant values of hydraulic conductivity are measured (ASTM D-5084).

(e) Full scale liner installation may begin only after completion of a successful liner test section. During liner construction, quality control testing shall be provided to document that the installed liner conforms to project specifications. The testing frequencies for quality control testing are specified below; however, during construction of the first five acres of the liner, these frequencies shall be doubled. Samples shall be obtained from random locations selected by an independent soil testing laboratory. If there are indications of a change in product quality or construction procedures during liner construction, additional tests shall be performed to determine compliance.

1. Field testing during liner installation. The following field tests shall be performed:

a. Prior to the laying of the liner materials, the liner subbase shall be compacted to the specified density. Density tests shall be conducted at a minimum rate of two tests per acre;

b. A minimum of two moisture content and field density determinations shall be conducted per acre per lift of the compacted liner. The degree of compaction shall be checked using the one-point field Proctor test or other appropriate test procedures; and

c. A minimum of four thickness measurements shall be conducted per acre per lift of the compacted liner.

2. Laboratory testing during liner installation. The following laboratory tests shall be performed:

a. Percent fines (ASTM D-1140) of the liner construction material shall be determined at a minimum frequency of two tests per acre per lift of installed liner;

b. Atterberg Limits determinations shall be performed on one sample per acre per lift of installed liner; and

c. Hydraulic conductivity testing of Shelby tube or drive cylinder (ASTM D-2937) samples of the compacted liner shall be performed at a minimum frequency of one test per acre per lift. Laboratory hydraulic conductivity tests shall be conducted in triaxial type permeameters (ASTM D-5084). The test specimens shall be consolidated under an isotropic consolidation stress no greater than 10 pounds per square inch and permeated with water under an adequate backpressure to achieve saturation of the test specimens. The inflow to and outflow from the specimens shall be monitored with time and the hydraulic conductivity

17-701.400(8)(d)3.d.(cont'd.) - 17-701.400(8)(e)2.c.

calculated for each recorded flow increment. The test shall continue until steady state flow is achieved and relatively constant values of hydraulic conductivity are measured.

(f) If the test data from a liner section does not meet the requirements of the project specifications, additional random samples may be tested from that liner section. If such additional testing demonstrates that the thickness and hydraulic conductivity meet the requirements of the project specifications at the 95 percent confidence level, that liner section will be considered acceptable. If not, that liner section shall be reworked or reconstructed so that it does meet these requirements.

(9) Surface water management systems.

(a) Landfills shall have surface water management systems designed, constructed, operated, and maintained to prevent surface water from running on to waste filled areas, and a stormwater runoff control system designed, constructed, operated, and maintained to collect and control stormwater to meet the requirements of Chapter 17-25, F.A.C., and the requirements for management and storage of surface water in accordance with Chapter 373, F.S.

(b) Stormwater controls shall include retention or detention ponds, and drainage ways specifically designed and sized according to local drainage patterns, soil permeability, annual precipitation, area land use, and other characteristics of the contributing watershed.

(c) Stormwater management systems shall be designed to avoid mixing of stormwater with leachate. Stormwater or other surface water which comes into contact with the landfilled solid waste or mixes with leachate shall be considered leachate and is subject to the requirements of Rules 17-701.500(8) and 17-701.510(5), F.A.C.

(10) Gas control systems.

(a) Landfills that receive biodegradable wastes shall have a gas monitoring and control system designed to prevent explosions and fires, and to minimize off-site odors and damage to vegetation. Landfill gas control systems shall:

1. Be designed to prevent the concentration of methane and other gasses generated by the landfill from:

a. Exceeding twenty-five percent of the lower explosive limit for gasses in structures on- or off-site, excluding gas control or recovery components;

b. Exceeding the lower explosive limit for gasses at or beyond the landfill property boundary; and

c. Causing objectionable odors at or beyond the landfill property boundary;

2. Be designed for site-specific conditions and be installed in each section of the landfill that has been filled to design dimensions;

17-701.400(8)(e)2.c.(cont'd.) - 17-701.400(10)(a)2.

3. Be designed to reduce gas pressure in the interior of the landfill by collecting the gasses to prevent them from moving laterally. Collection pipes, pathways, or vents shall collect gas from at least the uppermost two-thirds of the filled waste or where the more anaerobic conditions exist. Air shall not be forced into the collection system. Passive venting or suction shall be used to extract gas; and

4. Not interfere with or cause failure of the liner or leachate control systems.

(b) Flaring of landfill gasses may be used as a method of gas control, particularly control of objectionable odors, in accordance with the permitting requirements of Chapter 17-296, F.A.C.

(c) Owners or operators of solid waste disposal units that have received biodegradable waste shall implement a routine gas monitoring program to ensure that the standards of paragraph (10)(a) of this section are met.

1. The location of monitoring points and frequency of monitoring shall be determined by the following factors:

a. Soil conditions;

b. The hydrogeologic conditions surrounding the facility;

c. The hydraulic conditions surrounding the facility; and

d. The location of facility structures and property boundaries.

2. All monitoring points shall be sampled quarterly, and the results reported to the Department.

3. If methane gas levels exceed the lower explosive limits specified in paragraph (10)(a) of this section, the owner or operator shall:

a. Immediately take all necessary steps to ensure protection of human health and notify the Department;

b. Within 7 days of detection, submit to the Department for approval a remediation plan for the methane gas releases. The plan shall describe the nature and extent of the problem and the proposed remedy. The remedy shall be completed within 60 days of detection unless otherwise approved by the Department.

(d) Landfills using piping or a similar conduit to convey gas shall be furnished with a positive means of gas condensate collection and disposal at each low point in the conveyance system.

(11) Landfill gas recovery facilities.

(a) Landfill gas recovery facilities are considered solid waste management facilities, and shall be constructed and operated only in accordance with a Department permit. Landfill gas recovery facilities that are operating without

17-701.400(10)(a)3. - 17-701.400(11)(a)

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a permit shall submit a complete application to the Department on or before July 6, 1993. If a gas recovery facility is included in the approved closure plan or closure permit of the landfill, no separate permit for the facility is required, provided that the facility must meet all the requirements of this subsection.

(b) The application be on Form 17-701.900(1), and shall contain at least the following:

1. The information contained in Rules 17-701.320(7) and 17-701.330(4), F.A.C.;

2. Where relevant and practical, the information required in Rule 17-701.600(4), F.A.C.;

3. An estimate of the quantities of gas condensate currently collected or expected to be collected, and a description of how the condensate is or will be disposed of;

4. A description of the procedures for sampling, analyzing, and reporting data from the condensate sampling;

5. A closure plan that shall include methods to control landfill gasses after operation of the recovery facility ceases and any other requirements contained in Rule 17-701.400(10), F.A.C.

(c) The owner or operator of a gas recovery facility shall post a performance bond to cover the estimated costs of closing the facility. If the gas recovery facility is included in the approved closure plan or closure permit of the landfill, and if the closure costs are included in the landfill closure cost estimates for which financial responsibility is required by Rule 17-701.630, F.A.C., then no separate proof of financial responsibility is required.

(12) Landfills in ground water. A landfill constructed so that the bottom liner is constantly in contact with ground water is not prohibited by this rule. However, an applicant proposing such a design shall include special design features which demonstrate that the landfill will provide an equivalent degree of protection for the environment as would a similar landfill whose bottom liner is not in contact with ground water. Such a design is not entitled to the presumption of compliance with performance standards which is set forth in subsection (1) of this section. In addition to any other assurances of financial responsibility for closure, an applicant shall provide a performance bond sufficient to ensure long-term maintenance and operation of the leachate collection system.

Specific Authority: 403.061, 403.704, F.S.
Law Implemented: 403.702, 403.704, 403.707, F.S.
History: New 1-6-93.

17-701.400(11)(a)(cont'd.) - 17-701.400(History)

17-701.410 Hydrogeological Investigation Requirements.

(1) Hydrogeological investigation and site report. The hydrogeological investigation and site report required by Rule 17-701.330(4), F.A.C., shall be conducted by or under the supervision of a professional geologist or professional engineer with experience in hydrogeologic investigations, and shall:

(a) Define the landfill site geology and hydrology and its relationship to the local and regional hydrogeologic patterns including:

1. Direction and rate of ground water and surface water flow, including seasonal variations;

2. Background quality of ground water and surface water;

3. Any on site hydraulic connections between aquifers;

4. For all confining layers, semi-confining layers, and all aquifers below the landfill site that may be affected by the landfill, the porosity or effective porosity, horizontal and vertical permeabilities, and the depth to and lithology of the layers and aquifers; and

5. Topography, soil types and characteristics, and surface water drainage systems of the site and surrounding the site.

(b) Include an inventory of all the public and private water wells within a one-mile radius of the proposed landfill site. The inventory shall include, where available:

1. The approximate elevation of the top of the well casing and the depth of each well:

2. The name of the owner, the age and usage of each well, and the estimated daily pumpage; and

3. The stratigraphic unit screened, well construction technique, and static water levels of each well.

(c) Identify and locate any existing contaminated areas on the landfill site.

(2) Report verification. The site report and supporting information, including detailed description of the methods, calculations, and interpretations used, shall be signed and sealed by the professional engineer or geologist.

Specific Authority: 403.061, 403.704, F.S.
Law Implemented: 403.702, 403.704, 403.707, F.S.
History: New 1-6-93.

17-701.420 Geotechnical Investigation Requirements.

(1) Geotechnical site investigation. The geotechnical site investigation required by Rule 17-701.330(4), F.A.C., shall be conducted by or under the supervision of a professional engineer with experience in geotechnical engineering. Prior to any construction on the landfill

17-701.410(1) - 17-701.420(1)

site, the engineer shall define the engineering properties of the site that are necessary for the design, construction, and support of the landfill and all installations of the facility and shall:

(a) Explore and describe subsurface conditions including soil stratigraphy and ground water table conditions;

(b) Explore and address the presence of muck, previously filled areas, soft ground, lineaments, and sinkholes;

(c) Include estimates of the average and maximum high ground water table across the site; and

(d) Include a foundation analysis to determine the ability of the foundation to support the loads and stresses imposed by the landfill. It may include geotechnical measures necessary to modify the foundation to accommodate the imposed loads and stresses. The foundation shall be analyzed for short-term, end of construction, and long-term stability and settlement conditions. Considering the existing or proposed subgrade conditions and the landfill geometry, analysis shall include:

1. Foundation bearing capacity;

2. Subgrade settlements, both total and differential; and

3. Subgrade slope stability.

(2) Report. The geotechnical site investigation report shall describe the site subsurface conditions and shall include, at a minimum, the methods used in the investigation, all soil boring logs and laboratory results, analytical calculations, cross sections, interpretations and conclusions.

(3) Report verification. The report and supporting documentation shall be signed and sealed by the professional engineer.

Specific Authority: 403.061, 403.704, F.S.
Law Implemented: 403.702, 403.704, 403.707, F.S.
History: New 1-6-93.

17-701.430 Vertical Expansion of Landfills.

(1) Applicability. Construction of a solid waste disposal unit on top of or against the side slopes of a previously filled landfill, whether active, closed, or inactive is considered vertical expansion of that landfill. Vertical expansion shall require either a modification of the landfill permit, or a new permit if the landfill has been closed. The following requirements shall apply:

(a) The vertical expansion shall not cause or contribute to any leachate leakage from the existing landfill, and shall not adversely affect the closure design of the existing landfill.

17-701.420(1)(con't.) - 17-701.430(1)(a)

(b) For vertical expansion over lined landfills, no interface liner is required between the old and new landfill slopes.

(c) For vertical expansion over unlined landfills or landfills that were not constructed in accordance with permit requirements, the vertical expansion shall comply with all the requirements of Rule 17-701.400, F.A.C., with the following exceptions:

1. Side slopes of six feet horizontal to one foot vertical rise or steeper require the installation of a single geomembrane slope liner overlain by a leachate collection and removal system;

2. The slope liner shall consist of a 60-mil or thicker geomembrane with a maximum water vapor transmission rate of 0.24 g/(m^2 x day) as determined by ASTM Method E96-80, procedure BW, "Test Methods for Water Vapor Transmission of Materials," Sections 04.06, 08.03, and 15.09.

3. The liner shall be protected from physical damage by a 24-inch thick protective layer above the liner and a bedding layer below the liner at least 24 inches thick to protect against the calculated differential settlement.

4. In all vertical expansion construction, grades shall slope toward the new expansion area.

5. If the vertical expansion consists exclusively of construction and demolition debris, the expansion must comply with the requirements of Rules 17-701.730 and 17-701.803, F.A.C., as well as paragraph (a) of this subsection.

6. If the vertical expansion consists of a composting operation, it must meet the requirements of Chapter 17-709, F.A.C., as well as paragraph (a) of this subsection.

7. If the vertical expansion consists of a Class III landfill, the provisions of Rule 17-701.340(3)(d), F.A.C., apply.

(d) The provisions of Rule 17-701.610(7), F.A.C., are applicable to all operations, including recycling operations, conducted on top of closed landfills.

(2) Construction requirements. The design for the vertical expansion shall also provide calculations and supporting information on the following factors:

(a) Construction on the slopes of a filled landfill requires a determination of foundation stability in accordance with Rule 17-701.420, F.A.C., and calculations for the total settlement of the waste in the existing landfill and the waste that will be disposed of in the new disposal area to be constructed. Total settlement calculations shall address both compression and differential settlement, and shall be based on worst case predictions.

17-701.430(1)(b) - 17-701.430(2)(a)

Total settlement calculations shall show the final elevations of the liner systems, that gravity drainage will be maintained, and that no other component of the design will be adversely affected.

(b) The vertical expansion design shall achieve a minimum safety factor of 1.5 for:

1. The liner system stability for liner systems installed over existing landfill slopes to prevent sliding along the interface between liner system components; and

2. Deep stability, to prevent sliding along all potential failure surfaces through the waste mass, along the liner systems, and through the foundation soils.

(c) Surface water management during construction of the vertical expansion over the slopes of an existing landfill shall be consistent with Rule 17-701.400(9), F.A.C., and shall require proper design of the drainageway at the interface between the existing slopes and vertical expansion area. The design shall:

1. Prevent infiltration into the existing and new landfills;

2. Minimize erosion of cover materials;

3. Carry the calculated flow; and

4. Comply with the cover requirements.

(d) A gas control system shall be installed to vent gas from the interface between the existing landfill slopes and the vertical expansion slopes to prevent accumulation of gas under the new liner system. Gas venting is achieved by installing a gas venting layer under the entire slope that will be covered by the new liner system. The gas venting layer shall convey gas to vertical vents at the crest of the interface slopes.

Specific Authority: 403.061, 403.704, F.S.
Law Implemented: 403.702, 403.704, 403.707, F.S.
History: New 1-6-93.

17-701.500 Landfill Operation Requirements.

(1) Operating personnel. All landfills shall have at least one trained operator at the landfill during all times when the landfill receives waste. Trained operators are those who have satisfied the requirements of Chapter 17-703, F.A.C. All landfills shall have at least one spotter at each working face at all times when the landfill receives waste to detect unauthorized wastes.

(2) Operation plan. Each landfill owner or operator shall have an operational plan that provides written, detailed instructions for the daily operation of the landfill. The operation plan shall be kept at or near the landfill facility and shall be accessible to landfill operators. The operation plan shall be revised if

17-701.430(2)(a)(cont'd.) - 17-701.500(2)

operational procedures change. The plan shall include procedures for:

(a) Designation of persons responsible for operation and maintenance of the facility;

(b) Contingency operations, alternate waste handling and disposal methods in case of emergency such as a fire, natural disaster or equipment failure;

(c) Controlling the type of waste received at the site. The plan shall specify inspection procedures, number and location of spotters for each working face, and procedures to be followed if prohibited wastes are discovered;

(d) Weighing incoming waste;

(e) Vehicle traffic control and unloading;

(f) Method and sequence of filling waste;

(g) Waste compaction and application of cover;

(h) Operations of gas, leachate, and stormwater controls; and

(i) Water quality monitoring.

(3) Operating record. The operating record shall consist of all records, reports, analytical results, and notifications required by this chapter, as well as the training verifications required by Chapter 17-703, F.A.C. The record is considered part of the operation plan, and shall be kept with the plan at or near the landfill facility. The operating record shall be available for inspection at reasonable times by Department personnel.

(4) Waste records.

(a) The owner or operator of a landfill shall weigh all solid waste as it is received. Landfill operators shall record, in tons per day, the amount of solid waste received and shall estimate the amount of wastes listed in paragraph (b) of this subsection. Waste reports shall be compiled monthly, and copies shall be provided to the Department quarterly.

(b) Types of waste received:

1. Household waste
2. Commercial waste
3. Ash residue
4. Incinerator by-pass waste
5. Construction and demolition debris
6. Treated biohazardous waste
7. Agricultural waste
8. Industrial waste
9. Yard trash
10. Sewage sludge
11. Industrial sludge
12. Water/air treatment sludges

(5) Control of access. To prevent unauthorized waste disposal, access to and use of the facility shall be controlled by fencing, gates, or other barriers, as well as signs and facility personnel. Public access and receipt of wastes shall occur only when an attendant is on duty.

17-701.500(2)(cont'd.) - 17-701.500(5)

(6) Monitoring of waste.

(a) The owner or operator shall implement a load checking program to detect and discourage attempts to dispose of unauthorized wastes at the landfill. The load checking program shall consist of the following minimum requirements:

1. The landfill operator shall examine at least three random loads of solid waste delivered to the landfill each week. The waste collection vehicle drivers selected by the inspector shall be directed to discharge their loads at a designated location within the landfill. A detailed inspection of the discharged material shall be made for any unauthorized wastes. If the landfill owner or operator also owns or operates a transfer station, this inspection may be carried out at that transfer station before delivery of the waste to the landfill.

2. If unauthorized wastes are found, the facility shall contact the generator, hauler, or other party responsible for shipping the waste to the landfill to determine the identity of the waste sources.

(b) Handling hazardous wastes.

1. If any regulated hazardous wastes are identified by random load checking, or are otherwise discovered to be improperly deposited at the landfill, the landfill operator shall promptly notify the Department, the person responsible for shipping the wastes to the landfill, and the generator of the wastes, if known. The area where the wastes are deposited shall immediately be cordoned off from public access. If the generator or hauler cannot be identified, the landfill operator shall assure the cleanup, transportation, and disposal of the waste at a permitted hazardous waste management facility.

2. Subsequent shipments from sources found or suspected to be previously responsible for shipping regulated hazardous waste shall be subject to precautionary measures prior to the solid waste management facility accepting wastes.

(c) Recording inspection results. Information and observations resulting from each random inspection shall be recorded in writing and retained at the landfill for at least three years. The recorded information shall include, at a minimum: the date and time of the inspection; the names of the hauling firm and the driver of the vehicle; the vehicle license plate number; the source of the waste, as stated by the driver; and observations made by the inspector during the detailed inspection. The written record shall be signed by the inspector.

(d) Training. Inspectors, equipment operators, weigh station attendants, and spotters shall be trained to identify unauthorized wastes or potential sources of regulated hazardous wastes. The training program shall emphasize familiarity with containers and labels typically used for hazardous wastes and hazardous materials.

(7) Waste handling requirements.

(a) All solid waste at Class I and Class II landfills shall be spread in layers of approximately two feet in thickness and compacted to approximately one foot in thickness or as thin a layer as practical before the next layer is applied. Solid waste at all Class III sites shall be spread in layers and compacted once every week using suitable heavy equipment. Bulky materials which are not easily compacted should be worked into other materials as much as practical.

(b) The first layer of waste placed above the liner and leachate collection system shall be a minimum of four feet in compacted thickness and consist of selected wastes containing no large rigid objects that may damage the liner or leachate collection system.

(c) Solid waste shall be formed into cells to construct horizontal lifts. The working face of the cell, and side grades above land surface, shall be at a slope no greater than three feet horizontal to one foot vertical rise. Lift depth should normally not exceed 10 feet but may be deeper, depending on specific operations, daily volume of waste, width of working face, and good safety practices.

(d) The working face shall be only wide enough to accommodate vehicles discharging waste, and to minimize the exposed area and unnecessary use of cover material.

(e) Initial cover shall be applied and maintained at landfills in order to minimize any adverse environmental, safety, or health effects such as those resulting from birds, unauthorized wastes, blowing litter, odors, vectors, or fires. The minimum frequency for applying cover is:

1. For Class I landfills, at the end of each working day, except for those areas where solid waste will be deposited on the working face within 18 hours;

2. Class II, every four days and at the end of each work week;

3. Class III, at the end of each work week.

(f) An intermediate cover in addition to the six-inch initial cover shall be applied and maintained within seven days of cell completion if additional solid waste will not be deposited within 180 days of cell completion. The landfill operator may remove all or part of the intermediate cover before placing additional waste or installing final cover.

(g) Solid waste disposal units which have been filled to design dimensions shall receive final cover within 180 days after attaining final elevation or in accordance with the closure plan for the landfill.

(h) Uncontrolled and unauthorized scavenging shall not be permitted at any landfill site. Controlled salvaging for recycling may be permitted by the landfill operator.

(i) A litter policing operation shall be employed to keep litter from leaving the working area of the landfill. Litter outside the working area shall be picked up within 24 hours. Some litter may be exposed through the initial cover if it is in traffic areas and away from public view.

(j) Erosion control measures shall be employed to correct any erosion which exposes waste or causes malfunction of the storm water management system.

(8) Leachate management.

(a) The landfill operator is responsible for leachate level monitoring, sampling, analysis of the landfill leachate, and for providing copies of the leachate analysis to the Department.

(b) The landfill operator is responsible for the operation of the leachate collection and removal system and for maintaining the system as designed for the design period. Leachate shall be collected and treated as necessary to meet surface and ground water quality standards of Chapter 17-3 and 17-302, F.A.C. If the leachate is classified as a hazardous waste, it shall be managed in accordance with Rule 17-730, F.A.C.

(c) Leachate may be discharged to an off-site treatment plant. The landfill operator is responsible for having a written contract or agreement with the off-site treatment plant to discharge leachate to the plant.

(d) On-site leachate treatment or pretreatment systems are part of the leachate collection and removal system and shall be designed according to the expected characteristics of the leachate. The design may include adjustments to the system as necessary to accommodate changing leachate characteristics.

(e) The landfill operator shall have a prepared contingency plan to handle leachate collection, removal, and treatment problems such as interruptions of discharges to a treatment plant.

(f) Quantities of leachate collected by the leachate collection and removal system shall be recorded in gallons per day before on-site treatment or transport off-site.

(g) A recording rain gauge shall be installed, operated, and maintained to record precipitation at the landfill. Precipitation records shall be maintained and used by the permittee to compare with leachate generation rates.

17-701.500(7)(g) - 17-701.500(8)(g)

(9) Gas monitoring. All landfills that have received organic wastes shall implement a routine gas monitoring program to meet the requirements of Rule 17-701.400(10), F.A.C.

(10) Stormwater system management. Stormwater management systems shall be operated and maintained as necessary to meet applicable standards of Chapters 17-3, 17-302, and 17-25, F.A.C.

(11) Equipment and operation features. The landfill shall have:

(a) Sufficient equipment to ensure proper operation of the landfill and for excavating, spreading, compacting, and covering waste. All equipment shall have all personnel safety devices required by law;

(b) Sufficient reserve equipment or arrangement to obtain additional equipment within 24 hours of equipment breakdown;

(c) Communications equipment for emergency and routine communications;

(d) Personnel shelter and sanitary facilities and first aid equipment;

(e) Dust control methods;

(f) Fire protection and fire-fighting capabilities adequate to ensure safety of employees and to control accidental burning of solid waste in the landfill. Fire protection includes procedures for notification of local fire protection agencies for assistance in emergencies;

(g) Litter control devices, portable fences, or other suitable devices; and

(h) Signs indicating the name of the operating authority, traffic flow, hours of operations and restrictions or conditions of disposal.

(12) Roads. The landfill shall have:

(a) An all-weather access road that is passable and safe under normal operating conditions; and

(b) An inside perimeter road and other on-site roads, maintained to allow access to monitoring devices and stormwater controls, for landfill inspections and fire fighting.

(13) Recordkeeping. In addition to records and reporting required by other sections of this chapter, the landfill owner or operator shall:

(a) Keep records of all information used to develop or support the permit applications and any supplemental information submitted to comply with this chapter pertaining to construction of the landfill throughout the design period. Records pertaining to the operation of the landfill shall be kept for the design period of the landfill.

17-701.500(9) - 17-701.500(13)(a)

(b) Retain records of all monitoring information, including calibration and maintenance records, all original chart recordings for continuous monitoring instrumentation, and copies of all reports required by permit, for at least ten years. Background water quality records shall be kept for the design period of the landfill.

(c) Maintain an annual estimate of the remaining life and capacity in cubic yards of the existing, constructed landfill and remaining capacity and site life of other permitted areas not yet constructed. The annual estimate shall be based on a summary of the heights, lengths, and widths of the solid waste disposal units. The estimate shall be made and reported annually to the Department.
Specific Authority: 403.061, 403.704, F.S.
Law Implemented: 403.702, 403.704, 403.707, F.S.
History: New 1-6-93.

17-701.510 Water Quality and Leachate Monitoring Requirements.

(1) Applicability.

(a) This section shall apply only to applications for construction or lateral expansion of a solid waste disposal unit received after January 6, 1993. However, at the time of permit renewal or, if the permit is not renewed, at the time of closing, owners or operators of all landfills receiving waste after January 6, 1993 shall sample and analyze their leachate in accordance with subsection (5) and paragraph (6)(b) of this section, and shall sample and analyze quarterly all monitoring wells specified in the permit for the water indicator parameters listed in paragraph (8)(a) of this section. This provision does not relieve a person from compliance with any permit condition or Department order, nor does it limit the Department's authority to modify a permit or ground water monitoring plan in accordance with Chapter 17-522, F.A.C.

(b) This rule is intended to supplement the ground water monitoring requirements of Chapter 17-522, F.A.C. Any provisions of Chapter 17-522, F.A.C., which are not in direct conflict with the provisions of this rule remain applicable.

(2) Water quality monitoring plan and system.

(a) The permit applicant shall provide to the Department a water quality monitoring plan for the landfill that describes the proposed ground water, surface water, and leachate monitoring systems. The plan shall be based on the hydrogeological investigation required in Rule 17-701.410, F.A.C., and be prepared by, or under the supervision of, a

professional geologist or professional engineer with experience in hydrogeologic investigations. The plan shall be signed and sealed by the professional geologist or professional engineer.

(b) The water quality monitoring system shall be installed and consist of: a sufficient number of ground water wells installed at appropriate locations and depths to yield ground water samples from the uppermost aquifer, as well as other aquifers reasonably expected to be affected by the landfill; surface water monitoring points installed at locations to yield samples of surface water that may be affected by the landfill; and leachate monitoring points to yield representative leachate samples. All sampling and analysis activities shall be performed by organizations that have Comprehensive Quality Assurance Plans approved in accordance with Rule 17-160.300(8), F.A.C.

(3) Ground water monitoring.

(a) Two or more detection wells shall be located, and within zone of discharge hydraulically downgradient from the solid waste disposal unit, to detect leachate releases. These wells shall be located no more than 50 feet from the edge of the solid waste disposal unit, unless site specific conditions make such placement impractical. These wells shall be capable of monitoring each solid waste disposal unit as it is operated.

(b) Multiple downgradient compliance wells shall be located at or immediately adjacent to the compliance line of the zone of discharge, if required in subsection (7) of the subsection. If site-specific conditions require installation of compliance wells within the zone of discharge, then a confirmed exceedance of a ground water standard at such wells will be considered a violation of that standard.

(c) A sufficient number of background wells installed as part of the site hydrogeological investigation required in Rule 17-701.410, F.A.C., shall be maintained throughout the design life of the landfill to provide information on background water quality.

(d) Monitoring wells.

1. The location of each well, in degrees, minutes and seconds of latitude and longitude, the Universal Transverse Mercator coordinates, and the elevation of the top of the well casing to the nearest .01 foot, National Geodetic Vertical Datum, shall be determined by a registered Florida land surveyor.

2. An identification number shall be assigned by the Department to each monitoring well in accordance with the Department's Ground Water Monitoring System computer file.

The identification number shall be used on all water quality cmonitoring reports.

3. Well spacing shall be spaced no greater than 500 feet apart across the downgradient direction of ground water flow, and no greater than 1500 feet apart across the upgradient direction of ground water flow, in the uppermost aquifer within the zone of discharge, unless site specific conditions support the use of alternate well spacing. Conditions to be considered include, but are not limited to, ground water flow directions and rates, estimated longitudinal and transverse dispersivity rates, proximity to or presence of sensitive environments and ground water users, nature of the wastes, method of disposal, and the proposed design and size of the facility.

4. Well screens shall be located to readily detect representative ground water conditions within the saturated thickness of the uppermost aquifer within the zone of discharge. Well screens shall not act as conduits through confining layers between water bearing strata. Wells monitoring the unconfined water table shall be screened so that the water table can be sampled at all times. The applicant shall provide technical justification for the actual screen length chosen.

5. Any monitoring wells which are abandoned or which will be covered due to lateral expansions of a landfill or the construction of new solid waste disposal units shall be plugged as necessary so that they do not act as a conduit for any leachate release to the ground water.

6. Detection sensors capable of detecting changes in ground water that may indicate leachate releases, linked to a data recorder, may be used to augment detection wells or may be used as an alternative to detection wells, upon demonstration of their effectiveness to the Department.

(4) Surface water monitoring.

(a) All surface water bodies that may be affected by a contaminant release from the facility shall be monitored, except bodies of water contained completely within the property boundaries of the disposal site which do not discharge from the site to surface waters. In bodies of standing water, one or more representative monitoring points shall be located as close as practical to the facility. For flowing water bodies, a sufficient number of upgradient and downgradient locations shall be used to allow the effect of the landfill to be measured.

(b) Discharges from detention ponds for storm water shall be sampled at the point of discharge to waters of the state or from the property, whichever is closer to the detention pond.

(c) The details concerning the sampling locations and the analysis requirements shall be specified in the water quality monitoring plan. Each monitoring location shall be marked and its position shall be determined by a registered Florida land surveyor in degrees, minutes and seconds of latitude and longitude and Universal Transverse Mercator coordinates.

(5) Leachate sampling. The water quality monitoring plan shall specify the location of, and proposed protocol for, landfill leachate sampling to obtain a representative characterization of the leachate composition in the leachate collection and removal system as the leachate comes from the wastes and before it is subjected to conditions that may change the characteristics of the leachate. All sampling points shall be located to minimize pumping of leachate before sampling.

(6) Routine sampling frequency and requirements. Except as otherwise specified in a Department permit or order or in subsection (7) of this section, frequency of sampling and analysis shall be as follows:

(a) Background water quality.

1. Background water quality for a proposed landfill shall be determined by analysis of at least one water sample taken from each well that was installed, and each surface water monitoring location that was established, during the site hydrogeological investigation. The water quality information shall be submitted to the Department as part of the supporting information for the permit application.

2. Sampling and analysis for background ground water quality shall be for the parameters listed in paragraphs (8)(a) and (8)(d) of this section.

3. Sampling and analysis for background surface water quality shall be for the parameters listed in paragraph (8)(b) of this section.

(b) Leachate samplings.

1. Leachate shall be sampled and analyzed quarterly for the indicator parameters listed in paragraph (8)(c) of this section. In addition, leachate shall be sampled and analyzed annually for the parameters listed in paragraph (8)(d) of this section.

2. For landfills which are receiving waste, if this annual analysis indicates that a contaminant listed in 40 CFR 261.24 exceeds the regulatory level listed therein, the permittee shall initiate a monthly sampling and analysis program. If in any three consecutive months the same listed contaminant exceeds the regulatory level, the permittee shall, within 90 days, initiate a program designed to

identify the source and reduce the presence of the contaminant in the leachate so that it no longer exceeds the regulatory level. This program may include additional monitoring of waste received and additional up-front separation of waste materials. Any leachate which is not recirculated or taken to a permitted domestic wastewater treatment facility shall be treated or managed so that no contaminant exceeds the regulatory level. If in any three consecutive months no listed contaminant is found to exceed the regulatory level, the permittee may discontinue the monthly sampling and analysis and return to a routine sampling schedule.

(c) All detection wells, and a representative sample of background wells, shall be sampled and analyzed quarterly for the ground water indicator parameters listed in paragraph (8)(a) of this section.

(d) Compliance monitoring wells shall be sampled and analyzed no less than quarterly, as required in subsection (7) of this section.

(e) Surface waters shall be sampled and analyzed quarterly for the parameters listed in paragraph (8)(b) of this section.

(7) Assessment monitoring and corrective action.

(a) Assessment monitoring. If indicator parameters are detected in detection wells in concentrations which are significantly above background water quality, or which are at levels above the Department's water quality standards or criteria specified in Chapter 17-520, F.A.C., the permittee shall resample the wells within 15 days after the sampling data is received, to confirm the data. If the data is confirmed, the permittee shall notify the Department in writing within 14 days of this finding. Upon notification by the Department, the permittee shall initiate assessment monitoring as follows:

1. Routine monitoring of all monitoring wells, surface water monitoring locations and leachate sampling locations shall continue according to the requirements of subsection (6) of this section.

2. Within 90 days of initiating assessment monitoring and annually thereafter, the permittee shall sample and analyze a representative sample of the background wells and all affected detection wells for the parameters listed in paragraph (8)(d) of this section. Any new parameters detected and confirmed in the affected downgradient wells shall be added to the routine ground water monitoring parameter lists required in subsection (6) of this section.

3. Within 90 days of initiating assessment monitoring, the permittee shall install and sample compliance monitoring

17-701.510(4)(b)2.(cont'd.) - 17-701.510(7)(a)3.

wells at the compliance line of the zone of discharge and downgradient from the affected detection monitoring wells. These wells shall be installed according to the requirements of paragraph (3)(d) of this section, and samples shall be analyzed for the parameters listed in paragraphs (8)(a) and (d) of this section.

4. Within 180 days of initiating assessment monitoring, the permittee shall submit a contamination assessment plan to the Department. This plan shall be designed to delineate the extent and cause of the contamination, to predict the likelihood that Department water quality standards will be violated outside the zone of discharge, and to evaluate methods to prevent any such violations. Upon approval by the Department, the permittee shall implement this plan and submit a contamination assessment report in accordance with the plan. All reasonable efforts shall be made by the permittee to prevent further degradation of water quality from the landfill activities.

5. If for two consecutive sampling events the concentrations of all indicator parameters and the parameters listed in paragraph (8)(d) of this section are at or below background values, the permittee, upon approval by the Department, may discontinue assessment monitoring and return to the routine monitoring requirements in subsection (6) of this section.

(b) Corrective actions.

1. If the contamination assessment report indicates that water quality standards are likely to be violated outside the zone of discharge, the permittee shall, within 90 days, submit a remedial action plan to the Department. Upon approval, the permittee shall initiate corrective actions to prevent such violations.

2. If any contaminants are detected and confirmed in compliance wells in concentrations which exceed both background levels and Department water quality standards or criteria, or are detected and confirmed in detection wells in concentrations which are above Department water quality minimum criteria, the permittee shall notify the Department within 14 days of this finding and shall initiate corrective actions. Assessment monitoring shall continue according to the requirements of paragraph (7)(a) of this section.

(8) Water quality parameters. The following list of water quality monitoring parameters shall be used for each type of sampling to be done.

(a) Ground water indicator parameters:

Field parameters	Laboratory parameters
Static water level in wells before purging	Ammonium (NH4)

17-701.510(7)(a)3.(cont'd.) - 17-701.510(8)(a)

Field parameters	Laboratory parameters
Specific conductivity	Arsenic
pH	Bicarbonate
Dissolved oxygen	Cadmium
Turbidity	Chlorides
Temperature	Chromium
Colors and sheens	Iron
	Lead
	Mercury
	Nitrate
	Sodium
	Total dissolved solids (TDS)
	Total organic carbon (TOC)
	EPA 601/602 Analytes

(b) Surface water indicator parameters;

Field parameters	Laboratory parameters
Specific conductivity	Unionized ammonia
pH	Arsenic
Dissolved oxygen	Bicarbonate
Turbidity	Biochemical oxygen demand (BOD_5)
Temperature	Cadmium
Colors, sheens	Chromium
	Copper
	Iron
	Lead
	Mercury
	Nitrate
	Sodium
	Zinc
	Total dissolved solids (TDS)
	Total organic carbon (TOC)
	EPA 601/602 Analytes

(c) Leachate indicator parameters;

Field parameters	Laboratory parameters
Specific conductivity	Ammonium (NH_4)
pH	Arsenic
Dissolved oxygen	Bicarbonate
Colors, sheens	Cadmium
	Chlorides
	Chromium

	Iron
	Lead
	Mercury
	Nitrate
	Sodium
	Total dissolved solids (TDS)
	Total organic carbon (TOC)
	EPA 601/602 Analytes

(d) Those parameters listed in 40 CFR Part 258, Appendix II.

(9) Water quality monitoring reporting. The landfill owner or operator shall report all water quality monitoring results to the Department on a quarterly basis. The operator of the landfill shall notify the Department at least 14 days before the sampling is scheduled to occur so that the Department may collect split samples.

(a) Quarterly reporting periods shall be established in the facility permit. The report shall include at least the following:

1. The facility name and identification number, sample collection dates, and analysis dates;
2. All analytical results, including all peaks even if below maximum contamination levels;
3. Identification number and designation of all surface water and ground water monitoring points;
4. Applicable water quality standards;
5. Quality assurance, quality control notations;
6. Method detection limits;
7. STORET code numbers for all parameters;
8. Water levels recorded prior to evaluating wells or sample collection. Elevation reference shall include the top of the well casing and land surface at each well site at a precision of plus or minus 0.1 foot (NGVD); and
9. An updated ground water table contour map, with contours at no greater than one-foot intervals, which indicates ground water elevations and flow direction; and
10. A summary or trend analysis of any water quality standards or criteria that are exceeded, including elevations of parameters above background levels;

(b) At the end of each year of data collection, with the year beginning with the date the landfill permit was issued, a technical report, prepared, signed and sealed by a professional geologist or professional engineer with experience in hydrogeologic investigations, shall be submitted to the Department. The report shall summarize and

interpret the water quality data and water level measurements collected during the past two years. The report shall contain, at a minimum, the following:

1. Tabular and graphical displays of the data, including hydrographies for all monitor wells;

2. Trend analyses;

3. Comparisons among shallow, middle, and deep zone wells;

4. Comparisons between upgradient and downgradient wells;

5. Correlations between related parameters such as total dissolved solids and specific conductance;

6. Discussion of erratic and/or poorly correlated data; and

7. A summary ground water table contour map and an interpretation of the quarterly ground water contour maps.

(c) All field and laboratory records specified in Rules 17-160.600 - .630, F.A.C., shall be made available to the Department and be retained for the design period of the landfill.

Specific Authority: 403.061, 403.704, F.S.
Law Implemented: 403.702, 403.704, 403.707, F.S.
History: New 1-6-93.

17-701.520 Special Waste Handling.

(1) Motor vehicles. Motor vehicles that are brought to a landfill may be stored temporarily in a separate area until they are removed for recycling. If vehicles cannot be recycled, all fluids and batteries shall be removed from the vehicles and they shall be compacted to minimize voids before being placed in the Class I area.

(2) Disaster debris. In the event of a natural disaster, during which large volumes of debris are accumulated (such as trees and buildings that have been destroyed) the debris may be transported to an area remote from habitation and burned in accordance with Rule 17-256, F.A.C.

(3) Landfilling shredded waste. Landfilling shredded solid waste without daily soil cover may be an environmentally acceptable method of final disposal at a landfill that meets the requirements of Rule 17-701.340, F.A.C. A properly designed and operated shredding facility shall be approved by the Department contingent upon the following conditions:

(a) Particle size. Seventy percent of all shredded waste, dry weight, shall be capable of passing through a three-inch screen.

(b) Waste shall be spread to a smooth contour and compacted promptly after placement and left undisturbed to prevent odors. Blowing of shredded waste by the wind shall be controlled.

(c) All solid waste storage areas in the shredding facility shall be maintained and cleaned at the end of each day's operations or during continuous operation, as necessary, to prevent vector problems. All equipment shall be designed and maintained to control spillage and to achieve the required product quality.

(d) An operational plan shall include provisions for removal and proper disposal of wastes within 24 hours should the shredding facility breakdown or operational quality be diminished. The operational plan shall include provision for a stock pile of emergency soil cover material and a plan to convert the operation to a conventional landfill operation.

(e) Shredded waste disposal units that fill design dimensions shall be closed in accordance with Rule 17-701.600, F.A.C.

(4) Asbestos waste disposal.

(a) Asbestos-containing waste materials may be accepted for disposal at a permitted Class I, II, or III landfill. Each active waste disposal site that receives asbestos-containing waste material from a source covered under the National Emission Standards for Asbestos, 40 CFR Part 61, Subpart M, shall meet the requirements of 40 CFR Part 61.154, which are incorporated by reference herein. For purposes of this rule, the term "Administrator," when used in 40 CFR Part 61.154, shall mean Secretary of the Department of Environmental Regulation.

(b) The waste generator shall make arrangements with the landfill operator before disposal of such regulated asbestos-containing waste materials, and inform the operator of the quantity of the waste and the scheduled date the shipment will arrive at the landfill.

(c) The landfill operator shall direct the waste transporter to the designated disposal location. The disposal location shall be recorded in accordance with 40 CFR Part 61.154, and a record of the asbestos location shall be maintained.

(5) Contaminated soil. Soil which has been contaminated with petroleum products or any other products which are not hazardous wastes may be disposed of in permitted, lined landfills. Petroleum contaminated soil which has been treated pursuant to Chapter 17-775, F.A.C., may be disposed of at permitted disposal facilities and may, if it meets the criteria of Rules 17-701.200(24), (37), and (38), F.A.C., be used as cover material at permitted landfills.

(6) Ash residue. Ash residue from the burning of solid waste shall be managed in accordance with Chapter 17-702, F.A.C. Ash residue which meets the criteria of Rules

17-702.570(6) and 17-701.200(37), F.A.C., may be used as initial cover at permitted, lined landfills.
Specific Authority: 403.061, 403.704, F.S.
Law Implemented: 403.702, 403.704, 403.705, 403.707, 403.708, F.S.
History: Transferred from 10D-12.07, 10-1-74, Amended 5-24-79, 11-25-82, 7-10-84, 12-10-85, Formerly 17-7.06, 17-7.060, 17-701.060, Amended 1-6-93.

17-701.600 Landfill Final Closure.

(1) Applicability.

(a) Inactive landfills.

1. Landfills or solid waste disposal units which were closed in a manner approved by the Department prior to January 6, 1993, or which have received final cover before July 1, 1985, are exempt from the requirements of this section.

2. Owners or operators of landfills or solid waste disposal units which were no longer receiving wastes on January 6, 1993, which have not been closed in a manner approved by the Department, and which do not have an approved closure plan or closure permit shall comply with this section by January 6, 1994.

3. Owners or operators of landfills or solid waste disposal units which were no longer receiving wastes on January 6, 1993, which have not been closed in a manner approved by the Department, and which do have an approved closure plan or closure permit are exempt from the requirements of this section as long as the closure plan or closure permit is complied with.

(b) Active landfills. Landfills or solid waste disposal units which receive wastes after January 6, 1993, shall comply with the requirements of this section. Owners or operators of active landfills or solid waste disposal units which have an approved closure plan or closure permit on January 6, 1993 shall apply for modification of their plan or permit to comply with this section by January 6, 1994, or, if the landfill or solid waste disposal unit is not scheduled to close before the existing operation permit expires, at the time of permit renewal. Landfills or solid waste disposal units which are operating under a Department consent agreement, which have a closure permit, and which cease accepting wastes on or before December 1, 1992, are exempt from the requirements of this section except for Rule 17-701.600(5)(g), F.A.C.

(2) Closure schedule.

(a) At least one year prior to the projected date when wastes will no longer be accepted or when all solid waste disposal units are expected to reach design dimensions, the owner or operator shall provide a written notice to the

17-701.520(6)(cont'd.) - 17-701.600(2)(a)

Department with a schedule for cessation of waste acceptance and closure of the landfill. The closure schedule shall become an addendum to the landfill permit. If unforeseen circumstances do not allow the one-year notification, notice shall be provided as soon as the need to close the facility becomes apparent.

(b) Notice and advice to users. At least 120 days prior to the date when wastes will no longer be accepted at the landfill, the owner or operator shall advise users of the intent to close the landfill by posting signs at the entrance of the landfill giving the date of closing, the location of alternative disposal facilities, and the name of the person responsible for closing the landfill. These signs shall be maintained throughout the closing period. If unforeseen circumstances do not allow the 120 day notice to users, notice shall be provided as soon as the need to close the facility becomes apparent.

(c) Notice to the public. Within 10 days prior to the date when wastes will no longer be accepted at the landfill, the owner or operator shall publish a notice of the landfill closing in the legal advertising section of a newspaper of general circulation in the county where the activity is proposed, and shall provide proof of publication to the Department within seven days of publication.

(3) Closure permit requirements. The owner or operator shall submit an application to the Department for final closure of the landfill at least 90 days before the date when wastes will no longer be accepted. The application shall be on Form 17-701.900(1). If the landfill is operating under a Department permit, the owner or operator shall request a modification of the permit in lieu of submitting a closure permit application. The application or request for modification shall include a closure plan which is made up of the following:

(a) A closure report;
(b) A closure design plan;
(c) A closure operation plan;
(d) Closure procedures;
(e) A plan for long-term care; and
(f) A demonstration that proof of financial responsibility for long-term care will be provided.

(4) Closure report. A report on the final closure of the landfill shall address the following requirements, or shall contain an explanation of why the requirement is not applicable:

(a) General landfill information which shall contain:
1. Identification of the landfill;
2. Location, description and vicinity map;

17-701.600(2)(a)(cont'd.) - 17-701.600(4)(a)2.

3. Total acreage of waste disposal areas and total acreage of landfill property;
4. Legal description of property on which the landfill is located;
5. History of the landfill including dates of construction and a description of the location and sequence of fill operations; and
6. Identification of types of waste disposed of in the completed landfill based on records, composition studies, operator memory, major waste depositors, or other information sources.

(b) The geotechnical investigation report and water quality monitoring plan required in Rule 17-701.330(4), F.A.C.

(c) Land use information which shall contain a discussion and maps indicating:
1. Identification of adjacent landowners;
2. Zoning;
3. Present land uses; and
4. Roads, highways, rights-of-way, or easements.

(d) A report on actual or potential gas migration in landfills that contain biodegradable wastes disposed of in porous soils which would allow migration of gas off the landfill property. Gas migration test points shall be located along property boundaries, particularly those adjacent to off-site occupied structures within 100 feet of the property boundary or where distressed vegetation is present. Test points are required along each boundary segment spaced as needed to detect gas migration. Test points shall extend at least three feet below ground surface. Where sand, gravel, or more gas permeable soil strata may interconnect the waste deposit and the property boundary, multiple depth sampling points are necessary to draw gas samples from the permeable layers. Methane concentrations shall be determined as a percent of the lower explosive limit. Methane concentrations shall not exceed the lower explosive limit at the property boundary or 25 percent of the limit within structures on the property.

(e) An assessment of the effectiveness of the landfill design and operation, which shall provide information about the effects of the landfill on adjacent ground and surface waters, and the landfill area. Specific concerns to be discussed are:
1. Results of the geotechnical investigation;
2. Effects of surface water runoff, drainage patterns, and storm water controls;
3. Extent and effects of methane gas migration, lower explosive limit percentage readings in migration paths, and description of the gas venting system;

4. Condition of existing cover, thicknesses and types of soils or materials used for cover, and effectiveness of cover material as a leachate control mechanism; and
5. The nature and characteristics of the waste disposed of at the landfill.

(5) Closure design. The closure design plan shall consist of engineering plans and a report on closing procedures that apply to the final closing of solid waste disposal units during the operation of the landfill, the final closing of the landfill, and the monitoring and maintenance during the long-term care period. The closure design plan shall include the following information:

(a) A plan sheet showing phases of site closing.

(b) Drawings showing existing topography and proposed final grades.

(c) Provisions to close solid waste disposal units within the landfill as soon as they reach approved design dimensions and elevations and to finally close the landfill in accordance with the requirements of this rule. Landfills that are designed to be constructed in phases or sections shall include provisions for temporary closure of solid waste disposal units if subsequent, planned filling on top of them will not occur for six months or longer.

(d) Final elevations before settlement, based upon the capability of the foundation to support the total weight of the landfills, including water loading.

(e) Final side slope design. Side slopes of above-ground disposal units shall not be steeper than three feet horizontal to one foot vertical rise to control erosion of the final cover material. Such units shall incorporate reverse sloping benches or terraces into the side slopes of the landfill and shall contain down slope drainage ways with water flow energy dissipaters. Access for maintenance equipment shall be provided. Such designs shall address the susceptibility for erosion of the earthen material that is proposed for final cover relative to historical rainfall patterns for the area, the period between the patterns for the area, the period between the application of the final cover and establishment of vegetation, and maintenance procedures.

(f) Final cover installation plans showing the sequence of applying final cover. All areas filled with waste shall have a final cover designed to minimize infiltration of rainfall and subsequent generation of leachate, based on water balance calculations and leachate controls used.

1. The final cover shall be installed and tested in accordance with a construction quality assurance plan which meets the requirements of Rule 17-701.400(8), F.A.C.

2. Final cover shall be placed over the entire surface of each completed solid waste disposal unit or units within 180 days after the final waste deposit, or within the time frame set forth in the approved closure plan. The final cover shall be vegetated with drought-resistant species to control erosion. The final cover is intended to be a moisture infiltration seal, therefore vegetational species planted shall be drought resistant and such that the roots will not penetrate the seal and thus provide a channel for moisture infiltration.

3. Top gradients of final cover on landfill areas shall be graded to maximize runoff and minimize erosion, considering total fill height and expected subsidence caused by decomposing waste, and shall be designed to prevent ponding or low spots.

4. The closure design plan shall describe provisions for cover material for the long-term care erosion control, filling areas of subsidence or other depressions, maintaining berms, and general maintenance of the facility, and specify the anticipated source and amount of material necessary for proper closure of the landfill.

(g) Final cover design.

1. Lined landfills and Class III landfills shall have a barrier soil layer 18 inches thick, with a maximum permeability of 1×10^{-5} cm/sec, emplaced in 6-inch thick lifts. A final, 18-inch thick layer of soil that will sustain vegetation to control erosion shall be placed on top of the barrier layer. Unlined Class I and Class II landfills shall have a final cover consisting of a final, 18-inch thick layer of soil that will sustain vegetation to control erosion, placed on top of the barrier layer, and a barrier soil layer 18 inches thick, emplaced in 6-inch thick lifts, with a permeability of 1×10^{-7} cm/sec or less.

2. Differing soil layer hydraulic properties may be used for the barrier soil layer which minimize infiltration to an equivalent degree as subparagraph 1. of this paragraph, provided that the thickness is at least 12 inches.

3. A geomembrane may be used as an alternative to the low-permeability soil barrier for a final cover, constructed to preclude rainfall infiltration into the landfill. A geomembrane used in final cover shall be a semi-crystalline thermoplastic at least 40 mils thick or a non-crystalline thermoplastic at least 30 mils thick with a maximum water vapor transmission rate of 2.4 g/(m^2 x day), have chemical and physical resistance to materials it may come in contact with, and withstand exposure to the natural environmental stresses and forces throughout the installation, seaming process, and settlement of the waste during the closure and

17-701.600(5)(f)2. - 17-701.600(5)(g)3.

long-term care period. A protective soil layer at least 24 inches thick shall be put on top of the geomembrane. Material specifications, installation methods, and compaction specifications shall be adequate to protect the barrier layer from root penetration, resist erosion, and remain stable on the final design slopes of the landfill. This layer shall include top soil or soils that will sustain vegetative growth. In some cases, a drainage layer may be required between the cap (soil and geomembrane layer) and the top soil layer.

4. Nothing herein shall preclude the Department from requiring more stringent final or temporary cover designs in a permit or consent order if necessary to protect the public health or the environment because of the nature of wastes received or site specific geological or hydrogeological conditions, or if the landfill has not been adequately constructed, operated, maintained, or closed.

(h) Proposed method of stormwater control. Stormwater occurring on the landfill property and from areas adjacent to the landfill property shall be prevented from coming onto or into waste filled areas. The closure design plan shall demonstrate compliance with Chapter 17-25, F.A.C.

(i) Proposed method of access control. The closure design plan shall show how access to the closed landfill shall be restricted to prevent any future waste dumping or use of the facility by unauthorized persons. Restricted access shall remain in force until the landfill is stabilized and there is no evidence that facility property is being used as an unauthorized disposal site. If use of the property during the long-term care period is planned, access shall be restricted until landfill closing is completed and approved by the Department.

(j) A description of any proposed final use of the landfill property.

(6) Closure operation plan. The closure operation plan shall:

(a) Describe the actions which will be taken to close the landfill, such as placement of cover, grading, construction of berms, ditches, roads, retention-detention ponds, installation or closure of wells and boreholes, installation of fencing, seeding of vegetation, and protection of on-site utilities and easements;

(b) Provide a time schedule for completion of the closing and long-term care;

(c) Contain appropriate references to the closure design and other supporting documents;

(d) Describe the proposed method of demonstrating financial responsibility for the long term monitoring and maintenance; and

17-701.600(5)(g)3.(cont'd.) - 17-701.600(6)(d)

(e) Indicate any additional equipment and personnel needed to complete closure of the landfill.

(7) Temporary closure.

(a) Placement of final cover over a solid waste disposal unit may be delayed for a period of time specified in an approved closure plan for the following reasons:

1. For the purpose of promoting biological degradation of waste;

2. If additional solid waste will be deposited on the solid waste disposal unit within five years; or

3. If excavation of the waste is planned.

(b) Placement of final cover may be delayed only if the solid waste disposal unit is temporarily closed in accordance with an approved closure plan. Conditions of temporary closure shall include:

1. The solid waste disposal unit was constructed in compliance with its permit conditions, and has a liner and leachate control system;

2. A schedule for closure is shown in the closure plan application;

3. Final cover is installed on side slopes of each completed disposal unit which will not receive additional waste or which will not be mined, and all areas visible to the public are closed and landscaped;

4. Odors and vectors are controlled;

5. An intermediate cover is installed on the solid waste disposal unit;

6. The financial responsibility requirements of Rule 17-701.630, F.A.C., are met, and the closure cost estimate takes into account the costs of temporary closure as well as the costs of the final closure; and

7. The landfill owner or operator demonstrates that delaying placement of final cover will not cause or contribute to any significant increase in leachate escaping from the solid waste disposal unit into the environment.

(c) In addition, a solid waste disposal unit which will be mined in the future shall have a temporary final cover installed.

Specific Authority: 403.061, 403.704, F.S.
Law Implemented: 403.702, 403.704, 403.707, F.S.
History: New 1-6-93.

17-701.610 Closure Procedures.

(1) Closing inspections. The Department shall specify in the closure permit which particular closing steps or operations must be inspected and approved by the Department before proceeding with subsequent closure actions.

(2) Survey monuments. For landfills with a final elevation of less than 20 feet above the natural land surface, concrete monuments shall be installed to mark the

boundaries of the landfill property and other permanent markers shall be installed to outline the general waste filled areas. These markers shall be tied to one or more of the boundary markers by a survey performed by an engineer or a registered land surveyor. The location and elevation of all markers shall be shown on a site plan filed with the "Declaration to the Public" described in subsection (5) of this section.

(3) Final survey report. When landfill operations have been conducted which have raised the final elevations higher than 20 feet above the natural land surface, a final survey shall be performed after closure is complete by an engineer or a registered land surveyor to verify that final contours and elevations of the facility are in accordance with the plans as approved in the permit. Aerial mapping techniques which provide equivalent survey accuracy may be substituted for the survey. The survey or aerial mapping information shall be included in the report along with information reflecting the conditions of the landfill as constructed. Contours shall be shown at no greater than five-foot intervals. The landfill owner or operator shall submit this report to the Department in accordance with the closing schedule.

(4) Certification of closure construction completion. A certification of closure construction completion, signed, dated and sealed by the engineer of record, shall be provided to the Department upon completion of closure.

(5) Declaration to the public. After closing operations are inspected and approved by the Department, the landfill owner or operator shall file a declaration to the public in the deed records in the office of the county clerk of the county in which the landfill is located. The declaration shall include a legal description of the property on which the landfill is located and a site plan specifying the area actually filled with solid waste. The declaration shall also include a notice that any future owner or user of the site should consult with the Department prior to planning or initiating any activity involving the disturbance of the landfill cover, monitoring system or other control structures. A certified copy of the declaration shall be filed with the Department.

(6) Official date of closing. Upon receipt of the documents required in subsections (3), (4), and (5) of this section, the Department shall, within 30 days, acknowledge by letter to the facility operator that notice of termination of operations and closing of the facility has been received. If the entire landfill has been closed, the date of this letter shall be the official date of landfill

closing for the purpose of determining the long-term care period. If only a portion of the landfill has been closed, the long-term care period will begin upon the closing of the entire landfill, unless the portion which has been closed can be monitored and maintained separately from the rest of the landfill. The date of this letter shall be the official date of landfill closing for the purpose of determining the long-term care period.

(7) Use of closed landfill areas. Closed landfill areas, if disturbed, are a potential hazard to public health, ground water and the environment. The Department retains regulatory control over any activities which may affect the integrity of the environmental protection measures such as the landfill cover, drainage, liners, monitoring system, or leachate and stormwater controls. Consultation with the Department is required prior to conducting activities at the closed landfills.

Specific Authority: 403.704, F.S.
Law Implemented: 403.704, 403.707, F.S.
History: New 7-1-85, Formerly 17-7.074, Formerly 17-701.074, Amended 1-6-93.

17-701.620 Long-Term Care.

(1) Long-term care period. The owner or operator of any landfill which receives wastes after January 6, 1993, shall continue to monitor and maintain the facility in accordance with an approved closure plan for 30 years from the date of closing. Before the expiration of the long-term care monitoring and maintenance period, the Department may extend the time period if the closure design or closure operation plan is found to be ineffective.

(2) Reduced long-term care period. The owner or operator of a landfill may apply to the Department for a reduced long-term care schedule if reasonable assurance is provided to the Department that there is no threat to human health or the environment and if the landfill:

(a) Has been constructed and operated in accordance with approved standards, and has a leachate control system and a liner;

(b) Was closed with appropriate final cover, vegetative cover has been established, and a monitoring system has been installed;

(c) Has a 10-year history after closure of no violations of water quality standards or criteria detected in the monitoring system, and no increases over background water for any monitoring parameters which may be expected to result in violations of water quality standards or criteria; and

(d) Has had no detrimental erosion of cover, and subsidence of waste has ceased.

(3) Modified ground water monitoring plan. The owner or operator of a landfill may apply to the Department for a modification to their ground water monitoring plan to remove a parameter from the list specified in Rule 17-701.510(8), F.A.C., if the parameter has never been detected in the leachate or in any ground water well or surface water point during the active life of the landfill.

(4) Right of access. The landfill owner or operator shall possess or acquire a sufficient interest in, or a right to use, the property for which a permit is issued, including the access route onto the property to carry out the requirements of this rule. The permittee shall retain the right of entry to the landfill property for the long-term care period, after termination of solid waste operations, for inspection, monitoring and maintenance of the site.

(5) Successors in interest. Any person acquiring rights or ownership, possession or operation of a permitted landfill through lease or transfer of property shall be subject to all requirements of the permit for the facility and shall provide any required proof of financial responsibility to the Department in accordance with this rule. Any lease or transfer of property shall include specific conditions to delineate:

(a) The previous owner or operator is responsible for closure and shall maintain any required proof of financial responsibility until the person acquiring ownership, possession or operation of the landfill establishes the required proof of financial responsibility with the Department;

(b) Responsibility for the continuance of monitoring, maintenance, and correction of deficiencies or problems; and

(c) Mineral rights attached to the property and the rights to any recoverable materials that may be buried on the property or landfill gasses that may be produced. A Department permit shall be required if any on-site operations subsequent to closing of a landfill involve disturbing the landfill.

(6) Transfer of permit. Transfer of a landfill permit shall be in accordance with the provisions of Rule 17-4.120, F.A.C., and this rule.

(7) Replacement of monitoring devices. If a monitoring well or other device required by the monitoring plan is destroyed or fails to operate for any reason, the landfill owner or operator shall, immediately upon discovery, notify the Department in writing. All inoperative monitoring devices shall be replaced with functioning devices within 60

days of the discovery of the malfunctioning unit unless the landfill owner or operator is notified otherwise in writing by the Department.
Specific Authority: 403.704, F.S.
Law Implemented: 403.704, 403.707, F.S.
History: New 7-1-85, Formerly 17-7.075, Formerly 17-701.075, Amended 1-6-93.

17-701.630 Financial Responsibility.

(1) Definitions. As used in this section:

(a) "Owner or operator" means, in addition to the usual meanings of the term, any owner of record of any interest in land whereon a landfill is or has been located and any person or corporation which owns a majority interest in any other corporation which is the owner or operator of a landfill.

(b) "Active life" means the operating life of the landfill as estimated in the construction permit or closure plan, but does not include the long-term care period.

(2) Applicability.

(a) A government-owned landfill closed on or before October 1, 1988, shall not be required to comply with this rule.

(b) As a condition for the issuance of a landfill construction permit, the owner or operator shall describe the financial mechanism to be used to demonstrate proof of financial responsibility to the Department. The financial mechanism shall be created, and alternate financial mechanisms shall be fully funded, at least 60 days prior to the acceptance of any solid waste at the facility. The financial mechanism shall either be:

1. A landfill management escrow account; or

2. An alternate financial mechanism pursuant to subsection (6) of this section.

(c) Owners or operators of existing landfills or landfills which have received a construction permit prior to November 28, 1989, shall submit proof of financial responsibility to the Department by October 1, 1990. Such proof shall be:

1. That a landfill management escrow account has been established and that such account and interest thereon is current as to the required level of funding pursuant to subsection (5) of this section; or,

2. Proof of the existence and current value of an alternate financial mechanism pursuant to subsection (6) of this section.

(3) Cost estimates.

(a) For the purposes of determining the amount of proof of financial responsibility that is required in subsections (5) and (6) of this section, the owner or operator shall estimate the total cost of closure for the permitted portions of the landfill or for those portions of the landfill for which a construction permit is sought, for the time period in the landfill operation when the extent and manner of its operation make closing most expensive. The annual cost of long-term care shall be estimated and listed separately, and multiplied by 30 years. The owner or operator shall submit the estimates, together with all necessary justification, to the Department for approval along with the proof of financial responsibility. The costs shall be estimated by a professional engineer for a third party performing the work, on a per unit basis, with the source of estimates indicated.

(b) Closing costs shall be based on the nature and characteristics of the wastes disposed of at the site and shall include estimated costs of cover material, topsoil, seeding, fertilizing, mulching, labor, and any other costs of compliance with Rules 17-701.600 - .610, F.A.C.

(c) Long-term care costs shall include land surface care; gas monitoring; leachate pumping, transportation, monitoring and treatment; groundwater monitoring, collection and analysis; and any other costs of compliance with Rule 17-701.620, F.A.C.

(4) Annual cost adjustments.

(a) Every owner or operator of a landfill shall submit to the Department an annual cost adjustment statement, certified by a professional engineer. Closure and long-term care costs shall be listed separately.

(b) During the life of those portions of the landfill which have not been finally closed, the owner or operator shall revise the closure cost estimate for inflation and changes in the closure and long-term care plan. Such revisions shall be made annually in accordance with 40 CFR Part 264.142(a)(4)(b) or 40 CFR Part 264.144(a)(2)(b) and used as the basis for comparison against the balance in the landfill management escrow account or the value of an alternate funding mechanism.

(c) If the value of the alternate funding mechanism is less than the total amount of the current closure cost estimate, the owner or operator shall revise the funding mechanisms to reflect the new estimate within the time frames outlined in 40 CFR Part 264, Subpart H.

(d) If the value of the landfill management escrow account or alternate funding mechanism is greater than the total amount of the current closure cost estimate, the owner or operator may reduce the value of the account or funding mechanism to reflect the new estimate.

(5) Landfill management escrow account.

(a) The owner or operator of a landfill shall establish a fee, or a surcharge on existing fees, or other appropriate revenue-producing mechanism, to ensure the availability of financial resources for the proper closure and long-term care of the landfill.

(b) The revenue-producing mechanism shall produce revenue at a rate sufficient to generate funds to meet state landfill closure requirements.

(c) The revenue shall be deposited in an interest-bearing escrow account, the landfill management escrow account, to be held and administered by the owner or operator. The owner or operator shall file with the Department a signed duplicate original of the escrow account agreement and an annual audit of the account. The audit shall be conducted by an independent Certified Public Accountant and shall be filed no later than December 31 of each year. Counties using a Single Audit accounting system shall file this audit by March 31 of the following year. The audit shall consist of reporting the balance in the landfill management escrow account as of the end of each fiscal year and a list of all deposits and withdrawals made. The list shall include the date and the amount of each deposit and withdrawal.

(d) Payments into the landfill management escrow account shall be made by the owner or operator at least annually according to one of the following methods:

1. For a new landfill, the first payment must be made before the end of the first year after the initial receipt of solid waste into the landfill. A notice of such payment shall be submitted to the Department. The first payment shall be equal to the current closing cost estimate for the landfill divided by the number of years in the active life of the landfill. Subsequent payments must be made at least annually, over the term of the active life of the landfill, on the anniversary date of the first payment. The calculations for such annual payment shall be as follows: payment = (CE - CV) / Y, where CE is the current calculated closure cost estimate, CV is the current value of the escrow account, and Y is the number of remaining years in the active life of the landfill.

2. For government-owned landfills, the owner or operator shall deposit into the escrow account, at the time of closing and each year thereafter, sufficient funds to cover the following year's long-term care costs. In addition, the owner or operator must document specifically how it intends to finance the long-term care of the landfill as part of its closure plan.

3. For landfills not owned by a governmental agency, the long-term care costs shall be included in the closing cost estimates as specified in subparagraph 1. above; long-term care costs must be fully funded when the landfill closes.

4. For an existing government-owned landfill scheduled to close on or before October 1, 1995, no escrow account funding is required for costs associated with the closing of the landfill. Proof of financial responsibility for closing costs shall consist of specific documentation of how the owner or operator intends to finance the closing of the landfill. Escrow funding for long-term care shall be provided.

5. The owner or operator may accelerate payments into the landfill management escrow account or may deposit the full amount of the current closure cost estimate at the time that the account is established.

(e) The owner or operator may make expenditures from the account and its accumulated interest only for the purpose of landfill closure and long-term care and, if such expenditures do not deplete the fund to the detriment of eventual closure and long-term care as described under the certification procedure in subsection (4) of this section, for planning and construction of resource recovery or landfill facilities. If the owner or operator does not operate a landfill, any funds remaining in the account after paying for proper and complete closure and long-term care, as determined by the Department, shall be deposited by the owner or operator into the general fund of the local government of jurisdiction.

(f) The revenue generated under this subsection and any accumulated interest thereon may be applied to the payment of, or pledged as security for, the payment of revenue bonds issued in whole or in part for the purpose of complying with state landfill closure and long-term care requirements. Such application or pledge may be made directly in the proceedings authorizing such bonds or in an agreement with an insurer of bonds to assure such insurer of additional security therefore.

(6) Alternate proof of financial responsibility.

(a) An owner or operator may establish proof of financial responsibility with the Department in lieu of, or in combination with, the requirements of subsection (5) of

this section. Such proof may include surety bonds, certificates of deposit, securities, letters of credit, trust fund agreements, closure insurance or financial tests and corporate guarantees showing that the owner or operator has sufficient financial resources to cover, at a minimum, the costs of complying with all state landfill closure and long-term care requirements. If such proof of financial responsibility is surety bonds, letters of credit, trust fund agreements, closure insurance or financial tests and corporate guarantees, such proof shall be submitted on forms provided by the Department in accordance with the requirements of paragraphs (b) and (c) of this subsection. If proof of financial responsibility is securities or certificates of deposit, such financial documents shall be submitted directly to the Department. The owner or operator shall estimate such costs pursuant to subsection (3) of this section.

(b) 40 CFR Part 264 Subpart H which contains EPA's rules on financial requirements for owners and operators of hazardous waste facilities are hereby adopted as financial requirements for purposes of this section incorporated by reference as those rules appear in 40 CFR 264, revised as of July 1, 1988, except:

1. The following sections of 40 CFR Part 264 Subpart H are specifically not adopted as part of this rule:

a. 264.140(a); 264.140(b); 264.141(a); 264.141(e); 264.147; 264.149; 264.150; and 264.151.

b. All references to 40 CFR Part 265.

c. All references to sections or subparts of 40 CFR 264 not contained in Subpart H.

d. All references to EPA Regions.

e. All references to RCRA, or Section 3008 of RCRA.

2. References in 40 CFR 264 Subpart H to the United States Environmental Protection Agency (EPA) shall mean the State of Florida Department of Environmental Regulation; to Regional Administrator shall mean the Secretary of the Department; to RCRA permits shall mean solid waste management permits; to Post-Closure Care/Post-Closure Cost Estimate shall mean Long-Term Care/Long-Term Care Cost Estimate; to EPA identification number shall mean the Department identification number; to hazardous waste shall mean solid waste; and to hazardous waste treatment, storage or disposal facilities shall mean landfills.

(c) Government-owned facilities using a Single Audit accounting system and providing proof of financial responsibility using a financial test, must send updated information outlined in 40 CFR 264.143(f)(5) and 264.145(f)(5) to the Department within 180 days after the close of each succeeding fiscal year.

17-701.630(6)(a)(cont'd.) - 17-701.630(6)(c)

(d) Form 17-701.900(5) shall be used when submitting proof of financial responsibility under this section.

Specific Authority: 403.704, F.S.
Law Implemented: 403.704, 403.707, F.S.
History: New 7-1/85; Formerly 17-7.076; Amended 11-28-89; Formerly 17-701.076; Amended 1-6-93.

17-701.700 Materials Recovery Facilities.

(1) Applicability. No person shall construct or operate a materials recovery facility without a permit issued by the Department.

(2) Engineering report. A permit application for a materials recovery facility shall include the information required in Rule 17-701.320, F.A.C., and an engineering report that includes:

(a) A description of the solid waste that is proposed to be collected, stored, processed or disposed of by the facility, a projection of those waste types and quantities expected in future years, and the assumptions used to make the projections;

(b) A description of the operation and functions of all processing equipment that will be used, with design criteria and expected performance. The description shall show the flow of solid waste and associated operations in detail, and shall include:

1. Regular facility operations as they are expected to occur;

2. Procedures for start up operations, and scheduled and unscheduled shut down operations; and

3. Potential safety hazards and control methods, including fire detection and control;

(c) A description of loading, unloading, and processing areas. If wastes which are reasonably expected to produce leachate are being processed, the facility shall be designed with a leachate control system to prevent discharge of leachate and mixing of leachate with stormwater;

(d) Identification and capacity of temporary on-site storage areas for recyclable materials, non-processable wastes, unauthorized wastes, and residues;

(e) Provisions for solid waste and leachate containment;

(f) Identification of potential ground water and surface water contamination; and

(g) A plan for disposal of unmarketable recyclable materials and residue, and for waste handling capability in the event of breakdowns in the operations or equipment. Wastes shall be handled on a first-in, first-out basis. Stored putrescible wastes shall not be allowed to remain unprocessed for more than 48 hours unless provisions are made to control vectors and odors.

17-701.630(6)(d) - 17-701.700(2)(g)

(3) Operational requirements. A permit application for a materials recovery facility shall include the following operational requirements:

(a) An operation and maintenance manual describing the facility operations, the persons responsible for the operations, and types of equipment that will be used. All activities at the facility shall be performed in accordance with the manual and plans for the facility. Manuals and plans shall be updated as operations change but no less frequently than upon renewal of the operation permit;

(b) A plan to screen the wastes received by the facility, that specifies inspection procedures and procedures to handle unauthorized wastes;

(c) A contingency plan to cover operations interruptions and emergencies such as fires, explosions, or natural disasters; and

(d) A closure plan that identifies the steps needed to close the facility. The closure plan shall provide for the following:

1. Owner or operator notification to the Department in writing 180 days before the date the facility is expected to close. No waste shall be received by the facility after the expected closing date;

2. Within 30 days after receiving the final solid waste shipment, the owner or operator shall remove or otherwise dispose of all solid waste or residue in accordance with the approved closure plan; and

3. Closure must be completed within 180 days after receiving the final waste quantity. Closure will include removal of all recovered materials from the site. When closure is completed, the owner or operator shall certify in writing to the Department that closure is complete. The Department will make an inspection within 30 days to verify the closure and advise the owner or operator of the closure status.

(4) Financial responsibility. The owner or operator of a materials recovery facility shall post a performance bond payable to the Department to cover the cost of properly closing the facility, if one or more of the following conditions exist:

(a) Where the owner of the land or materials recovery facility and the operator of the facility are not the same person; or

(b) If the operator of the facility could stockpile waste that may create an environmental threat if the facility closes without properly disposing of the waste.

(5) Stormwater. Stormwater shall be controlled in accordance with Chapter 17-25, F.A.C., and any water management district rules. A copy of any permit for stormwater control, or documentation that no permit is required, shall be submitted to the Department before the facility receives waste for disposal.

Specific Authority: 403.061, 403.704, F.S.
Law Implemented: 403.702, 403.704, 403.707, F.S.
History: New 1-6-93.

17-701.720 Industrial Solid Waste Disposal

(1) Applicability. After January 6, 1995 except as provided below, and subject to the provisions of Rule 17-701.220, F.A.C., solid waste disposal units which accept primarily industrial wastes other than construction and demolition debris, clean debris, or those materials specified as acceptable in Class III landfills in Rule 17-701.340(3)(d), F.A.C., shall meet the following requirements:

(a) Solid waste disposal units constructed after January 6, 1995 or for which an application for a permit or site certification was not received and deemed complete by the Department before January 6, 1995 shall meet the same requirements of this chapter as apply to Class I landfills. This requirement also applies to lateral expansions of solid waste disposal units.

(b) All other solid waste disposal units which receive waste after January 6, 1995 shall comply with the same operational and closure requirements of Rules 17-701.500, 17-701.510, 17-701.600, 17-701.610, 17-701.620, and 17-701.630, F.A.C., as apply to Class I landfills.

(2) Alternate requirements for specific facilities. The owner or operator of an industrial waste disposal facility may request approval of alternate procedures and requirements in accordance with Rule 17-701.310, F.A.C.

(3) Alternate requirements for types of industrial operations. A person or organization representing a specific type of industrial operation may request general approval for all such industrial operations. Such request for a specific type of industrial operation shall be submitted by July 6, 1994 and shall be accompanied by an analysis of the waste stream and operational procedures intended to demonstrate that the standards for Class I landfills are inappropriate for that waste stream. This deadline shall be tolled during the time that any required, complete Quality Assurance Plan is being reviewed and acted on by the Department. The Department shall offer assistance to the waste generators in determining what types of information may be submitted. If the Department determines

that such submittal, along with any additional information supplied, includes the information specified in subsection (4) of this section, then the provisions of subsection (1) of this section shall not apply to that type of industrial operation. Instead, the Department shall, after an evaluation of the submittals and any additional information submitted, initiate rulemaking to set standards for the construction, operation and closure of disposal facilities at that type of industrial operation, including lateral expansions of existing facilities.

(4) Guidelines. The following guidelines are offered for those persons or organizations requesting such alternate requirements for industrial waste disposal facilities or types of industrial operations.

(a) The request should include a detailed description of those wastes which are typically disposed of. This description should include:

1. An analysis of the chemical, biological and physical properties of the waste;

2. An analysis of any predicted movements of such waste in ground water;

3. An analysis of the likelihood of such wastes causing violations of ground water quality standards or criteria if released into the environment, taking into account any applicable zones of discharge; and

4. An analysis of the likelihood of such wastes releasing methane or other gases into the atmosphere.

(b) The request should include a detailed description of the operational and management practices at the facility. The description should include:

1. A demonstration that the facility operator follows appropriate procedures to assure that only the described industrial wastes are disposed of in the industrial waste disposal unit; and

2. A demonstration that the facility will have equipment and features necessary to comply with Rule 17-701.500(11), F.A.C.

(c) If the person or organization is requesting that less stringent liner requirements apply, the request should include one or more of the following:

1. A demonstration that leachate from the waste, if released into the environment, will pose little or no threat to the public or the environment, and will not violate ground water quality standards and criteria, taking into account any applicable zones of discharge;

2. An analysis of the likelihood and extent that such leachate will be released into the environment; and

3. A demonstration that leachate from the waste will not have an adverse effect on the proposed liner system, if any.

17-701.720(3)(cont'd.) - 17-701.720(4)(c)3.

(d) If a person or organization is requesting that less stringent gas control systems apply, the request should include a demonstration that either:

1. The waste is not expected to produce any significant amounts of gases; or

2. The less stringent gas control system requested shall meet the requirements of Rule 17-701.400(10)(a)1., F.A.C.

(e) If a person or organization is requesting that less stringent ground water monitoring requirements apply, the request should include an analysis of the leachate produced by the waste indicating those constituents which may enter the ground water in the case of leakage.

(f) If a person or organization is requesting that less stringent initial or intermediate cover requirements apply, the request should include a demonstration that the less stringent requirements will provide an equal degree of protection from odors, fires, vectors, and blowing dust.

(g) If a person or organization is requesting that less stringent closure requirements apply, the request should include a demonstration that:

1. Infiltration of rainfall after closure will be minimized; or

2. Leachate generated after closure will not cause a violation of water quality standards during the long-term care period.

(5) This section is not intended to limit the Department's authority to require permits and permit conditions necessary to protect the public health and the environment. Between January 6, 1993 and January 6, 1995 and during any rulemaking procedures that the Department may undertake pursuant to subsection (3) of this section, the Department will continue to evaluate any applications for industrial waste disposal units on a case by case basis.

Specific Authority: 403.061, 403.704, F.S.
Law Implemented: 403.702, 403.704, 403.707, F.S.
History: New 1-6-93.

17-701.730 Construction and Demolition Debris Disposal.

(1) Clean debris. Clean debris may be used as fill material in any area, including waters of the State, subject to receipt of a dredge and fill permit from the Department where applicable. Clean debris used as fill material is not solid waste, and such use does not require a solid waste permit under this rule. Clean debris that is not used as fill material shall be disposed of as construction and demolition debris.

17-701.720(4)(d) - 17-701.730(1)

(2) Landfill disposal. Construction and demolition debris may be disposed of in a permitted landfill. However, pursuant to Section 403.706(2), F.S., each county must initiate by July 1, 1989, a program to develop segregated disposal areas for construction and demolition debris. This program shall be designed to assure that all construction and demolition debris is disposed of in segregated areas after August 1, 1990. The cover requirements for a segregated construction and demolition debris disposal area within a permitted landfill shall be those in Rule 17-701.803(9), F.A.C.

(3) On-site disposal. Construction and demolition debris which is disposed of on the property where it is generated, or on property which is adjacent or contiguous to and under common ownership and control as that property where the waste is generated, is exempt from the landfill permitting requirements of Rule 17-701.330, F.A.C. However, such disposal is subject to the prohibitions of Rule 17-701.300, F.A.C. Such disposal areas must also be closed, graded and vegetated as specified in Rule 17-701.803(9), F.A.C.

(4) Off-site disposal. Construction and demolition debris may be disposed of off-site at a facility operating under a general permit pursuant to Rules 17-4, Part III and 17-701.803, F.A.C., or at a solid waste facility permitted under Rule 17-701.330, F.A.C. Such a facility operating under a general permit shall accept only construction and demolition debris for disposal.

(5) Recycling and burning. Nothing in this rule shall prevent the burning or recycling of construction and demolition debris in accordance with Department rules.

(6) Disposal restrictions. Construction and demolition debris may be disposed of only in accordance with one of the methods authorized above. In addition, disposal areas shall be operated so that adverse environmental and public health impacts, such as blowing litter, odors, and vectors, are minimized.

(7) Asbestos waste disposal. Asbestos-containing waste materials regulated pursuant to 40 CFR Part 61, Subpart M, shall not be disposed of in a construction and demolition debris disposal area.

Specific Authority: 403.061, 403.704, 403.707, F.S.
Law Implemented: 403.706, 403.707, F.S.
History: New 8-2-89; Formerly 17-701.061; Amended 1-6-93.

17-701.801 General Permit for Solid Waste Transfer Station.

(1) General permit. A general permit is hereby granted to any person for the construction and operation of a solid waste transfer station that has been designed or will be operated in accordance with the standards and criteria set forth in Rules 17-4.540 and 17-701.300, F.A.C., and this section.

(2) Notification. Any person wishing to operate a transfer station pursuant to this section shall notify the Department on Form 17-701.900(4) and provide the following:

(a) Regional map. The regional map shall delineate the service area of the proposed transfer station.

(b) Site plan. The site plan shall include:

1. Site conditions and projected use including all site structures, buildings, fences, gates, entrances and exits, parking areas, on-site roadways, and signs;

2. Property boundaries, access roads, surface water bodies, and the location of 100-year flood plain boundaries;

3. Proposed structures and areas designated for unloading, sorting, storage, and loading, including dimensions, elevations, and floor plans of these structures and areas, and the general process flow; and

4. Adjacent properties including the location of public and private water supplies on these properties.

(c) Engineering report. The engineering report shall include:

1. A description of the general operating plan for the proposed facility including the origin, composition, and expected weight or volume of all solid waste to be accepted at the facility, the maximum time waste will be stored, where all wastes will be disposed, the capacity of the facility, the operating hours of the facility, and the expected life of the facility;

2. A description of all machinery and equipment to be used, including the design capacity;

3. A transfer plan specifying the transfer route, the number and type of transfer vehicles to be used, and how often solid waste will be transferred to the disposal site;

4. A description of the facility's drainage system and water supply system;

5. A plan for hiring and training equipment operators and other personnel concerning the operation of the facility; and

6. A contingency plan describing alternate solid waste handling procedures for periods of inoperation or delays in transporting solid waste.

(3) Design requirements. Minimum design requirements for transfer stations are as follows:

(a) On-site roads and unloading areas shall be designed for efficient movement and unloading of vehicles.

(b) Tipping, processing, sorting, storage and compaction areas that are in an enclosed building or covered area shall have ventilation systems. The areas that are not enclosed shall be equipped with litter control devices and visual screening.

(c) The facility shall be designed with a leachate control system to prevent discharge of leachate and mixing of leachate with stormwater.

(d) Provisions shall be made for weighing or measuring all incoming solid waste and recovered materials. Storage areas shall be designed to hold the expected volume of materials until they are transferred for disposal or recycling.

(e) Where the general public may use the transfer facility, safety procedures shall be established for private vehicles.

(4) Operational requirements.

(a) Prohibited wastes shall not be accepted at a transfer station. Handling of unauthorized wastes shall be addressed in the contingency plan.

(b) An attendant shall be on duty whenever the facility is operating. Operating hours shall be posted, and fencing, gates, or other means shall be used to prevent unauthorized access when the station is closed.

(c) Litter, insects, odors and vectors shall be controlled to prevent sanitary nuisance and unsightly appearance.

(d) Wastes shall be handled on a first-in, first-out basis to the extent practicable. All waste storage areas shall be cleaned at the end of each day's operations or during continuous operation, as necessary, to prevent odor or vector problems. All floors shall be free of standing liquids. Drainage from cleaning areas shall be discharged to sanitary sewers or the equivalent.

(e) Adequate fire protection must be available at all times.

(f) Recovered materials shall be clearly identified and stored in a safe, sanitary manner. A record of the type and quantity of recovered materials shall be maintained and reported as part of the county's recycling program.

(g) Operational records shall be maintained to include a daily log of the quantity of solid waste received and transported and the origin of the waste. Such records shall be compiled on a monthly basis and shall be available for inspection by the Department. Reports shall be retained at the station for three years.

(5) Certification of construction completion. Within 30 days of completion of construction, the engineer of record shall certify to the Department that the permitted construction is complete and that it was done in accordance with the plans submitted to the Department except where minor deviation was necessary. All deviations shall be described in detail and the reasons therefore enumerated.

(6) Stormwater. Stormwater shall be controlled in accordance with Chapter 17-25, F.A.C., and any water management district rules. A copy of any permit for stormwater control, or documentation that no permit is required, shall be submitted to the Department before the facility receives waste for disposal.

(7) Any person wishing to construct or operate a transfer station pursuant to this section shall publish, in a newspaper of general circulation in the area affected, notice of application for a general permit. Such public notice of application shall be published within 14 days after the applicant notifies the Department. Within 21 days after publication of notice, any person whose substantial interests are affected may request a hearing in accordance with Section 120.57, F.S. No person shall begin work pursuant to a general permit until after the time for requesting a hearing has passed or, if a hearing is requested, until final agency action is taken authorizing construction.

Specific Authority: 403.814(1), F.S.
Law Implemented: 403.061, 403.087, 403.088, 403.702-403.73, 403.814, F.S.
History: New 7-8-82; Previously numbered as 17-4.61; Formerly 17-4.610; Formerly 17-7.801; Amended 1-6-93.

17-701.802 General Permit for Land Application of Grade II Domestic Wastewater Treatment Sludge.

(1) As a result of the potential harm to human health or the environment resulting from sludge disposal activities, it is important that public notice be given before a general permit for such activities is utilized. Therefore, a general permit is hereby granted to any person for land application of Grade II domestic wastewater treatment sludge; provided:

(a) The person intending to apply the sludge to the land submits a completed General Permit Application for Grade II Sludges, as specified in Fla. Admin. Code Rule 17-701.060.

(b) The permit applicant, within 14 days of notice to the department, has published in a newspaper of general circulation in the area affected, a notice of the intended land application of Grade II sludge. The notice shall include the name of the applicant and a brief description of the proposed activity and location.

(c) The sludge is land applied pursuant to the requirements of Fla. Admin. Code Rule 17-701.540(5).

(2) The general permit shall be subject to the general conditions of Fla. Admin. Code Rule 17-4.540.

Specific Authority: 403.814, F.S.
Law Implemented: 403.061, 403.087, 403.702, through 403.715, 403.814, F.S.
History: New 6-16-84. Previously numbered as 17-4.64. Formerly 17-4.640, Formerly 17-7.802.

17-701.803 General Permit for Off-site Disposal of Construction and Demolition Debris.

(1) Notification. The owner or operator of the construction and demolition debris disposal facility shall notify the Department in writing on Form 17-701.900(3) of the intent to use this general permit. Owners or operators of solid waste management facilities which have a permit under Chapter 17-701, F.A.C., to receive construction and demolition debris are exempt from this requirement. The notification shall be signed and sealed by a professional engineer and shall include:

(a) A site plan, of a scale not greater than 200 feet to the inch, which shows the project location and identifies the proposed disposal areas, total acreage of the site and of the proposed disposal area, and any other relevant features such as water bodies, wetlands, or potable water wells on or within 500 feet of the site;

(b) A geotechnical investigation which meets the criteria of Rule 17-701.420, F.A.C.

(c) A general description of the facility operations, including equipment and personnel planned for the operation and closure of the facility;

(d) A boundary survey and legal description of the property from the county tax assessor's office;

(e) The planned active life of the facility, and the design height of the facility;

(f) Closure plans and cross section details of the final cover;

(g) The mailing address and phone number of the owner and operator; and

(h) Documentation that the applicant either owns the land or has legal authorization from the land owner to use the land for a disposal facility.

(2) Certification. Within 30 days of completion of construction, the engineer of record shall certify to the Department that the permitted construction is complete and that it was done in accordance with the plans submitted to the Department except where minor deviation was necessary. All deviations shall be described in detail and the reasons therefore enumerated.

(3) Other requirements. The requirements of Rules 17-701.330 through 17-701.630, F.A.C., do not apply to construction and demolition debris disposal facilities, provided that none of the prohibitions contained in Rule 17-701.300, F.A.C., or the water quality standards contained in Chapters 17-3 and 17-302, F.A.C., shall be violated.

(4) Stormwater. Stormwater shall be controlled in accordance with Chapter 17-25, F.A.C., and any water management district rules. A copy of any permit for stormwater control, or documentation that no permit is required, shall be submitted to the Department before the facility receives waste for disposal.

(5) Temporary storage. The disposal facility shall have equipment for temporary storage and transport for solid waste, other than construction and demolition debris, to an authorized disposal facility. Such solid waste which is accepted by the facility shall be segregated and disposed of in accordance with Department rules.

(6) Compaction. Construction and demolition debris shall be compacted and sloped as necessary to assure that the requirements of subsection (9) of this section can be met.

(7) Access. Access to the disposal facility shall be controlled during the active life of the facility by fencing or other effective barriers to prevent disposal of solid waste other than construction and demolition debris.

(8) Inspections. Operation of a facility under a general permit constitutes consent for Department personnel to inspect the site during normal business hours for compliance with Department rules.

(9) Closure. Final cover and seeding or planting of vegetative cover shall be placed on each disposal unit within 180 days after final receipt of wastes. Final cover shall consist of a 24-inch-thick soil layer, the upper six inches of which shall be capable of supporting vegetation and shall be graded to eliminate ponding, promote drainage, and minimize erosion. The side slopes of all above-grade disposal areas shall be no greater than three feet horizontal to one foot vertical rise.

(10) Notification of closure. The owner or operator shall notify the Department within 30 days after closing, covering, and seeding the facility as required in subsection (9) of this section.

(11) Recycling. The owner or operator of the facility may recover materials from the construction and demolition debris waste stream for purposes of recycling, provided that such recovery does not result in a violation of this section. In such a case, a separate solid waste permit is not required.

(12) Incineration. A facility which employs an air curtain incinerator and which also stores or disposes of construction and demolition debris at the site shall meet the permitting requirements of Rule 17-256.500, F.A.C., as well as this section. Specific Authority: 403.061, 403.704, 403.707, 403.814, F.S.
Law Implemented: 403.707, 403.814, F.S.
History: New 8-2-89; Amended 1-6-93.

17-701.900 Forms.

The forms used by the Department in the solid waste management program are adopted and incorporated by reference in this section. The form is listed by rule number, which is also the form number, and with the subject, title and effective date. Copies of forms may be obtained from a local District Office or by writing to the Florida Department of Environmental Regulation, DER Library, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.

(1) Application to Construct, Operate, Modify, or Close a Solid Waste Management Facility, effective January 6, 1993.

(2) Certification of Construction Completion of a Solid Waste Management Facility, effective January 6, 1993.

(3) Notification of Intent to Use a General Permit for a Construction and Demolition Debris Disposal Facility, effective January 6, 1993.

(4) Notification of Intent to Use a General Permit to Construct and Operate a Transfer Station, effective January 6, 1993.

(5) Financial mechanisms for solid waste management facilities requiring closure and/or long-term care, effective October 1, 1989:

(a) Solid Waste Facility Irrevocable Letter of Credit.
(b) Solid Waste Facility Financial Guarantee Bond.
(c) Solid Waste Facility Performance Bond.
(d) Solid Waste Facility Closure/Long-Term Care Insurance Certificate.
(e) Solid Waste Facility Financial Test.
(f) Solid Waste Facility Corporate Guarantee.
(g) Solid Waste Facility Trust Fund Agreement to Demonstrate Closure and/or Long-Term Care Financial Assurance.
(h) Solid Waste Facility Standby Trust Fund Agreement.

Specific Authority: 120.53(1), 403.061, 403.704, F.S.
Law Implemented: 120.53(1), 403.707, F.S.
History: New 8-2-89; Amended 1-6-93.

QUALITY ASSURANCE
STANDARD OPERATING PROCEDURES MANUAL
FOR SAMPLING ASH RESIDUE
FROM SOLID WASTE COMBUSTORS

Florida Department of
Environmental Protection

Memorandum

TO: District Waste Program Administrators

FROM: Mary Jean Yon, Administrator
Solid Waste Section

DATE: March 1, 1994

SUBJECT: Ash Sampling SOP Manual

A question has arisen regarding the applicability of the Ash Sampling SOP Manual, dated December, 1993. The Manual refers to ash residue from "solid waste combusters," which are defined to include any incinerator which burns solid waste. However, the intent of the Manual was to address the routine ash testing requirements for waste-to-energy facilities for the purpose of compliance with Rule 17-702.570, F.A.C. The procedures set forth in the Manual may not be appropriate for other types of incinerators, including biomedical waste incinerators, and may not be sufficient to demonstrate compliance with State and Federal hazardous waste regulations. In addition, waste-to-energy facilities that have requested permission to recycle/reuse their ash should check with the Department to ensure that the sampling procedures listed in this manual are applicable to their situation.

Please attach a copy of this memorandum to each Ash SOP Manual you provide to the public. Future editions of the Manual will include this clarification in the Introduction.

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I. INTRODUCTION

The Department of Environmental Protection has compiled the following document in order to establish comprehensive procedures which address the sampling of ash residue from solid waste combustors. Chapter 17-702.570(2), Florida Administrative Code (F.A.C.), requires that ash residue sampling and analysis be conducted in accordance with an approved Comprehensive Quality Assurance Plan (Comp QAP). In accordance with Rule 17-160.700(3), F.A.C., all sampling and analysis will be conducted in a manner consistent with Category 2C as specified in Table 3 of that rule. All parties conducting ash residue sampling should follow these Standard Operating Procedures. Subsequent analyses of collected samples must be performed by a laboratory which has an approved Comp QAP.

The intent of this document is to clarify Department regulations and requirements dealing with the sampling of solid waste combustor ash. These procedures have been developed in cooperation with the Bureau of Laboratories, Quality Assurance Section, and reflect the current rules governing solid waste combustor ash.

II. SAMPLING PROCEDURES

A. Ash Residue Sampling

Chapter 17-702.570(2), F.A.C. requires at least quarterly sampling for those priority pollutant metals listed in Table I.

B. Sampling Location

(1) A composite sample of the ash residue (combined fly ash, bottom ash and scrubber residue) shall be taken from the ash residue, either at the conveyance mechanism or in the ash load-out building. Grab samples shall be collected every 10 minutes for 4 consecutive hours during a single day each month. This specifically means that 6 samples shall be collected each hour with each individual sample weighing approximately 1 pound. At the end of the sampling day approximately 24 pounds of ash residue will have been collected. These monthly samples shall be composited and stored in a locked cabinet which is maintained at 4 degrees Centigrade. At the end of the sampling quarter (e.g. January-March) 3 composite samples, one composite sample for each month for that calendar quarter, will have been collected. The 3 monthly composite samples shall then be composited into 1 composite sample weighing approximately 2 pounds.

(2) If the fly ash and scrubber residue are not normally mixed with the bottom ash at the facility, then equal parts of fly ash and scrubber residue shall be collected in accordance with Section II.C. below and thoroughly mixed with the bottom ash prior to testing to obtain a representative sample.

C. Composite Ash Residue Sampling Procedure

The following composite and residue sampling procedures shall be used for collecting samples for the priority pollutant metals listed in Table I.

(1) At 10 minute intervals over the 4-hour sampling period, gather random sequential grab samples with a decontaminated stainless steel or plastic spoon, taking a cross section of the entire conveyance mechanism or the ash load-out building. The total amount sampled each 10 minutes should be approximately 1 pound.

(2) Place the samples into a stainless steel or glass tray until the sample has reached ambient air temperature. Place each sample into a clean plastic container and seal it with a screw top plastic lid. Store the samples in a locked cabinet at 4 degrees Centigrade.

(3) At the end of the sampling period, transfer the 24 samples into a clean stainless steel or glass tray for mixing.

(4) Thoroughly mix the daily composite ash residue sample with a large, precleaned, stainless steel or plastic spoon. To promote mixing, the stainless steel or plastic spoon should be slotted.

(5) Screen the mixed daily composite ash residue sample through a 3/8-inch stainless steel screen.

(6) Place $\leq$ 3/8 inch ash residue into a clean mixer which is large enough to accommodate the daily composite ash sample.

(7) Remove > 3/8 inch noncrushable ash residue from the sample (e.g. wheels, batteries, rebar, metal frames, etc.), weigh it and discard it. Record in a bound log the weight, type and approximate size of the discarded material.

(8) Pass > 3/8 inch crushable ash residue through a crusher and then recombine crushed ash residue with $\leq$ 3/8 inch ash residue in a mixer.

(9) Turn on the mixer for 10 minutes to assure thorough mixing of the composite sample. Remove the sample from the

mixer with stainless steel or plastic spoon and obtain a quarter of the total sample for the daily composite sample. The remaining 3/4 of the original sample may be discarded.

(10) Place the daily composite sample into a clean container and seal with a screw top plastic lid. Store this sample in a locked cabinet which is maintained at 4 degrees Centigrade. The third monthly composite sample of each sampling quarter (i.e. March, June, September and December) shall be analyzed separately from the quarterly composite sample for Mercury. The laboratory holding time for Mercury is 28 days.

(11) After 3 monthly composite samples are obtained, combine all three monthly composite samples in the mixer. Remove the sample after mixing for 10 minutes and divide it into four equal portions. Two of these portions may be discarded. Place each of the remaining two quarterly composite samples into separate clean containers and seal them with screw top plastic lids.

(12) Label containers for all composites as to location, date, samples and composite number.

(13) Ship one quarterly composite sample to the approved laboratory using the chain of custody form found in Figure I.

(14) Archive the other quarterly composite sample on-site in the locked refrigerated cabinet as a control and/or for future analyses for a maximum of 6 months, depending on the holding times for each analyte.

D. Cleaning Procedures

Equipment utilized to obtain samples must be decontaminated before every 4-hour sampling event.

(1) Wash equipment thoroughly with detergent and tap water using a brush to remove any particulate matter or surface film. Cleaning detergent shall be metal-free (Acationox or equivalent).

(2) Rinse equipment with tap water.

(3) Rinse equipment with 10% nitric acid rinse. The 10% nitric acid shall be made with 1 part reagent grade concentrated nitric acid and 5 parts deionized water.

(4) Rinse all non-metallic sampling and compositing equipment with deionized water and allow to air dry.

(5) Wrap equipment completely with plastic wrap to prevent contamination during transportation to or within a sampling site.

E. Sample Identification, Storage, and Holding Time

(1) Immediately after each monthly sample is collected, the container shall be sealed and labeled to identify the sample by location, date and time of collection, collector's name and analysis type.

(2) All samples must be shipped in wet ice, and access to samples must be restricted to only those persons identified in the chain of custody record.

III. SAMPLE CUSTODY

A. Sample Control Log

A sample control log must be maintained which will show the field ID number, the name of the sample collector, the date, shift, and location of collection. The field ID number also must be written on the sample label. A numbering system should be used for the field ID numbers which will allow accurate identification of ash samples with no ambiguity.

B. Chain of Custody Record

(1) A chain of custody record must be completed for every monthly composite sample collected. All parties accepting custody of the samples including the collector, coordinator, transporter, laboratory custodian, etc., must provide signatures on the chain of custody forms. In this record every sample will be identified by the following: field ID number, date, time, sampling method, sampling location, shift, container, and analytical methods. A chain of custody record must be filled out per sample collector per shift.

(2) A binder containing copies of chain of custody records must be maintained by the party which collects the sample. Two copies of a chain of custody record form must accompany the sample to the laboratory. Once the sample transporter signs out and the receiver signs in, one copy must be retained by the laboratory and one retained by the transporter who will deliver it to the party collecting the sample.

IV. REFERENCES

(1) Test Methods For Evaluating Solid Waste, Physical/Chemical Methods, Third Edition (EPA SW-846), 1986 as amended by Final Update 1, November 1990.

TABLE I

PRIORITY POLLUTANT METALS

Antimony	(mg/kg)
Arsenic	(mg/kg)
Beryllium	(mg/kg)
Cadmium	(mg/kg)
Chromium	(mg/kg)
Copper	(mg/kg)
Lead	(mg/kg)
Mercury	(mg/kg)
Nickel	(mg/kg)
Selenium	(mg/kg)
Silver	(mg/kg)
Thallium	(mg/kg)
Zinc	(mg/kg)

FIGURE I

CHAIN OF CUSTODY FORM

SAMPLE DATE _____ SAMPLE TIME _____

SAMPLE NUMBER _____ SAMPLE TYPE _____

ANALYTICAL METHOD REQUESTED _____

_____

PARAMETERS TO BE MEASURED _____

_____

_____

_____

FIELD INFORMATION _____

_____

_____

_____

SAMPLE COLLECTOR: NAME _____

TITLE _____

ADDRESS _____

TELEPHONE _____

LABORATORY REPORT TO _____

LABORATORY INVOICE TO _____

CHAIN OF CUSTODY

	Printed name	Signature	Date
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____

Department of Environmental Protection

Quality Assurance
Standard Operating Procedures Manual
for Sampling of Ash Residue
from Solid Waste Combustors

Solid Waste Section
December, 1993

Chapter 17-702 F.A.C.
Solid Waste Combustor Ash Management

17-702.100 Intent. The purpose of this chapter is to provide for the safe handling, storage, transportation, disposal, or beneficial use of ash residue from the combustion of solid waste. This chapter implements the requirements of Section 403.7045(5), F.S.
Specific Authority: 403.704, 403.7045, F.S.
Law Implemented: 403.7045, F.S.
History: New: 7-19-90.

17-702.200 Definitions. The following words, phrases or terms used in this chapter shall have the following meanings unless the context clearly indicates otherwise:

(1) "Ash residue" means all the solid residue and any entrained liquids resulting from the combustion of solid waste in a solid waste combustor, including bottom ash, fly ash and combined bottom and fly ash, but excluding recovered metals glass, and other recovered materials separated from the ash residue.

(a) "Bottom ash" means the solid material remaining after combustion of solid waste, which is discharged from the grates or stoker of a solid waste combustor.

(b) "Fly ash" means the residue from the combustion of solid waste, which is entrained in the gas stream of a solid waste combustor. Fly ash includes particulates, cinders, soot, and solid waste from air pollution control equipment.

(2) "Biological waste" means solid waste that causes or has the capability of causing disease or infection and includes, but is not limited to, biohazardous waste, diseased or dead animals, and other wastes capable of transmitting pathogens to humans or animals.

(3) "Co-disposal" means the disposal of two or more different types of waste in the same solid waste disposal unit.

(4) "Combustion" means the treatment of solid waste in a device that uses heat as the primary means to change the chemical, physical, or biological character or composition of the waste. Combustion processes include incineration and pyrolysis.

(5) "Facility" means all contiguous land and structures, other appurtenances and improvements on the land used for solid waste management.

(6) "Fugitive emissions" means those emissions which could not reasonably pass through a stack, chimney, vent or other functionally equivalent opening.

(7) "Hazardous waste" has the meaning given it in Chapter 17-730, F.A.C.

(8) "Monofill" means a waste pile, landfill or solid waste disposal unit into which only one type of solid waste is placed.

(9) "On-site" means the same or geographically contiguous property. It may be divided by public or private right-of-way.

(10) "Solid waste" means garbage, refuse, yard trash, clean debris, white goods, special waste, ashes, sludge, or other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from domestic, industrial, commercial, mining, agricultural, or governmental operations.

(11) "Solid waste combustor" means an enclosed device that uses controlled combustion, the primary purpose of which is to thermally break down solid, liquid, or gaseous combustible solid wastes to an ash residue that contains little or no combustible material.

(12) "Solid waste disposal unit" means a discrete area of land used for the disposal of solid wastes.
Specific Authority: 403.704, 403.7045, F.S.
Law Implemented: 403.7045, F.S.
History: New: 7-19-90, Amended 9-1-91.

17-702.300 Applicability.

(1) This rule applies to the management of ash residue generated by solid waste combustors with a total facility burning capacity of 50 tons per day or more and that primarily receive and burn solid waste collected from residential, commercial and industrial sources. The solid waste shall not contain hazardous waste, but may contain biological waste.

(2) All other ash residue not specifically addressed in (1) above shall be disposed of in a permitted, lined landfill that meets the requirements of Chapter 17-701, F.A.C., or shall be recycled in accordance with Rule 17-702.600, F.A.C.

(3) All new solid waste combustors constructed after August 1, 1990, shall comply with the requirements of this rule. Existing combustors or facilities that have submitted a complete application or have a permit or certification on August 1, 1990 shall comply with the requirements of this rule by August 1, 1991.

(4) Air curtain incinerators, trench burners or boilers which are restricted to burning only vegetative, agricultural, or silvicutural wastes or bagasse, or clean dry wood as defined in Rule 17-256.200(5), F.A.C., are excluded from the requirements of this rule.
Specific Authority: 403.704, 403.7045, F.S.
Law Implemented: 403.7045, F.S.
History: New: 7-19-90.

17-702.400 Ash Residue Management Plan.
(1) Applications for a permit to construct and operate solid waste combustors shall include an ash residue management plan. Existing, permitted or certified solid waste combustors shall submit an ash residue management plan to the Department by July 1, 1991. After Department review and approval, such plan shall be incorporated into the facility's existing permit, or into its certification pursuant to Section 403.511(5)(a), F.S.
(2) The plan shall describe the methods, equipment, and structures necessary to control the dispersion of ash residue during handling, processing, storage, loading, transportation, unloading and disposal, and shall consider potential pathways of human or environmental exposure, such as through inhalation, direct contact, ingestion, and the potential for soil, air, ground water and surface water contamination.
(3) The plan shall identify disposal sites which are intended to receive ash residue from the solid waste combustor for the life of the facility, beginning with the date the plan is submitted to the Department for approval.
(4) The plan shall include an estimate of the quantities of bottom and fly ash to be generated by the facility on an annual and a daily basis. The estimate shall identify and quantify those components of ash residue that can be segregated for recycling before disposal, and shall address the beneficial use of ash residue.
(5) The plan shall include a Quality Assurance plan which complies with the requirements of Chapter 17-160, F.A.C., before the start of any sampling, analysis or characterization required by this rule.
(6) The plan shall include contractual requirements, notification and inspection procedures to assure that hazardous wastes are not received at or burned in the facility.
(7) The plan shall be updated as necessary to reflect changed conditions, but shall be reviewed and updated at least every five years.
Specific Authority: 403.704, 403.7045, F.S.
Law Implemented: 403.7045, F.S.
History: New: 7-19-90, 9-1-91.

17-702.300(4) - 17-702.400(7)

17-702.500 Ash Residue Storage Requirements.
(1) The facility must have enough on-site capacity to ensure that ash residue is properly managed. Proper storage includes:
(a) Storage in leak-resistant containers located inside a building or structure; or
(b) Storage outside in leak-resistant containers which are covered to prevent rainwater infiltration and visible emissions. When containers are used, free liquid shall be collected and controlled during the storage or loading process; or
(c) Storage on-site in a waste pile which is located inside or under a structure that provides protection from precipitation and water that runs onto the property. Fugitive dust emissions shall be controlled. The pile shall be placed on a concrete pad or other low permeability base. A leachate management system shall be provided to collect and treat or otherwise control any leachate that may drain from the ash residue. Leachate may be returned to the quench water for reuse. Leachate collection and holding facilities shall be provided, maintained and be of sufficient size to prevent overflow.
(2) Ash residue shall not be stored for more than 90 days without prior written approval by the Department.
Specific Authority: 403.704, 403.7045, F.S.
Law Implemented: 403.7045, F.S.
History: New: 7-19-90.

17-702.530 Off-site Transportation Requirements for Ash Residue. Ash residue shall be drained of free liquid before being transported off-site. Containers or trucks used for transporting ash shall be designed to prevent leakage. The transport vehicle shall be enclosed or covered to prevent the escape of visible fugitive emissions.
Specific Authority: 403.704, 403.7045, F.S.
Law Implemented: 403.7045, F.S.
History: New: 7-19-90.

17-702.570 Ash Residue Disposal Requirements.
(1) Disposal of ash residue shall be in a landfill with a leachate collection and removal system and liner system which comply with the requirements of Rule 17-701.050, F.A.C. The applicability section of Rule 17-701.050(1), F.A.C., specifically applies to all existing ash disposal facilities.
(2) Ash residue shall be analyzed every three months by the operator of a solid waste combustor for priority pollutant metals. Representative composite samples shall be prepared for analysis by total digestion, using EPA Method 3050 Acid Digestion of Sediments, Sludges, and Soils, "Test Methods for Evaluating Solid Waste Physical/Chemical Methods," EPA Publication SW-846 (3rd edition as amended by Update I (December, 1987)). Samples shall be collected and analyzed by the methods listed in the Quality Assurance/Quality Control plan approved by the Department.

17-702.500 - 17-702.570(2)

(3) Leachate shall be analyzed every three months for priority pollutant metals.

(4) The results of the ash and leachate analyses shall be submitted annually to the Department in a report which presents and summarizes the data. If the ash analyses indicate significantly elevated levels of metals concentrations compared to metals concentrations in ash at other facilities in the State, the facility, following notification by the Department, shall carry out an investigation to determine the source(s) of these metals in the waste stream. The facility shall submit the results of the investigation to the Department, along with a plan to reduce or eliminate the sources of the metals. If the metals concentrations in the leachate exceed the regulatory levels in 40 CFR 261.24, the facility shall report to the Department the steps it intends to take to reduce the metals concentration in the leachate. Leachate containing metals above the regulatory levels shall be treated on-site to reduce its metals content.

(5) Disposal facilities shall control fugitive dust emissions.

(6) Ash residue used for daily cover shall be sufficiently free of organics and other materials so as not to attract rodents, flies or other vermin. Ash residue shall not be used for cover material on outside slopes or roadways unless provisions are taken to prevent migration of the ash residue.

(7) Co-disposal facilities shall be operated to prevent the formation of impermeable layers in the landfill that interfere with the operation of the facility's stormwater and leachate management systems.

(8) Co-disposal landfills shall comply with the requirements of Chapter 17-701, F.A.C. Monofills for disposal of ash residue shall comply with the following requirements:

Monofill

17-701.040 Prohibitions:	All
17-701.050 Sanitary Landfill Criteria:	
Applicability:	(1)
Location Requirements;	(3)(a) and (b),(c)2. and 4.
Landfill design;	(4)(a),(b),(c),(d)2.and 3.and (e)
Landfill Performance and Design Standards;	(5)(a), (b), (c), (d), (e), (f), (g) and (h)
Operations;	(6), (a), (b)1., 2., 3., 4., 5., 6., 8., and 9., (c)1., 2. and 5., (g), (h), (k), (l) and (o)
17-701.070 Closure of Landfills:	(1)(e) and (2)
17-701.071 Closure Schedule:	(1)
17-701.072 Closure Permit Application Submittal:	All
17-701.073 Closure Plan Requirements:	(1), (2), (3), (5)(a), (b), (d) and (e), (6)(a), (b), (c), (d), (e), (g) and (h), (7) and (8)
17-701.074 Closure Procedures:	(1), (2), (3), (4), (5) and (6)
17-701.075 Long Term Care:	All
17-701.076 Financial Responsibility:	All.

Specific Authority: 403.704, 403.7045, F.S.
Law Implemented: 403.7045, F.S.
History: New: 7-19-90.

17-702.600 Recycling of Ash Residue. Processed ash residue which is recycled shall comply with the following:

(1) The generator shall, at least monthly, describe the chemical and physical properties of the ash residue which is to be recycled. The generator may request an alternate description schedule based upon the particular recycling process involved, the use of the recycled product, and the volume of ash residue recycled. The Department shall allow such an alternate description schedule if it determines that such schedule provides a substantially equivalent degree of protection for public health and the environment.

(2) Prior to beginning operations, the processor of the ash residue shall demonstrate to the Department that the process and use of the ash residue will not cause discharges of pollutants to the environment. The processor shall:

(a) Describe the chemical and physical properties of the finished product line, identify the quantity of ash residue used in a product, and identify quantity and quality of the product to be marketed or used;

(b) Demonstrate that the proposed process will physically or chemically change the ash residue so that any leachates produced after processing will not cause a violation of surface or ground water quality standards contained in Chapters 17-3 and 17-550, F.A.C.;

(c) Demonstrate that processed ash residue or products using ash residue will not endanger human health or the environment. Exposure risks to be considered include, but are not limited to, inhalation, ingestion, skin contact, and migration to soil, surface and ground water; and

(d) Establish performance standards and operational criteria for the process that are designed to demonstrate reliable operation in compliance with Rules 17-702.600(2)(a) through (c), F.A.C.

(3) The processor shall notify the Department of any changes in the process or ash residue which could affect the demonstrations made in (2) above.

Specific Authority: 403.704, 403.7045, F.S.
Law Implemented: 403.7045, F.S.
History: New: 7-19-90.

17-702.700 Alternative Procedures and Requirements.

(1) Any person subject to the provisions of Rules 17-702.300 through 17-702.600, F.A.C., may request in writing a determination by the Department that a procedure or requirement shall not apply, and shall request approval of alternate procedures or requirements.

(2) The request shall set forth the following information:

(a) The specific facility or site for which an exception is sought;

(b) The specific procedures or requirements of Rules 17-702.300 through 17-702.600, F.A.C., from which an exception is sought;

(c) The basis for the exception;

(d) The alternate procedure or requirement for which approval is sought and a demonstration that this alternate procedure or requirement provides an equal degree of protection for the public health and the environment; and

(e) A demonstration of the effectiveness of the proposed alternative procedure or requirement.

(3) The Secretary shall authorize by order each alternative procedure or requirement approved for an individual facility or site in accordance with this section or shall deny by order the request for such approval.

Specific Authority: 403.704, 403.7045, F.S.
Law Implemented: 403.7045, F.S.
History: New: 7-19-90.

HAZARDOUS WASTE REGULATIONS
CHAPTER 17-730

CHAPTER 17-730
HAZARDOUS WASTE

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PART I
HAZARDOUS WASTE RULE
DEFINITION AND IDENTIFICATION

17-730.001 Declaration and Intent.

The State of Florida Department of Environmental Regulation (DER) promulgates Florida Administrative Code Rule 17-730.020, to establish appropriate definitions to be used in the rules to be adopted implementing Part IV of Chapter 403, Florida Statutes, establishing a Florida hazardous waste management program. Florida Administrative Code Rule 17-730.030, shall be adopted to establish the identification of hazardous wastes to be regulated pursuant to Part IV of Chapter 403, Florida Statutes, by listing of hazardous wastes and by establishing procedures by which hazardous wastes may be identified.

When used in any such provisions as may be adopted from 40 CFR Parts 260 and 261: United States shall mean the State of Florida, EPA shall mean DER, and Administrator shall mean Secretary of DER or the Secretary's designee, where appropriate.

Specific Authority: 403.704, 403.8055, F.S.
Law Implemented: 403.72, 403.704, F.S.
History: New 5-28-81; Amended 8-19-81, 11-16-81, 2-12-82, 4-29-83, 1-5-84, 7-22-85; Previously numbered as 17-30.01, Formerly 17-30.001

17-730.020 Definitions.

(1) The Department adopts by reference the definitions contained in 40 CFR Section 260.10 revised as of July 1, 1991.

(2) When the same word, phrase, or term is defined in Part IV of Chapter 403, Florida Statutes, and 40 CFR Part 260.10, and the definitions are not identical, the definitions as given in the State Statute shall apply.

(3) References to 40 CFR Part 261 shall mean rules adopted by DER regarding identification of hazardous wastes, references to 40 CFR Part 262 shall mean rules adopted by DER regarding generators of hazardous wastes, references to 40 CFR Part 263 shall mean rules adopted by DER regarding transporters of hazardous wastes, references to 40 CFR Parts 264 and 265 shall mean rules adopted by DER regarding treaters, storers, and disposers of hazardous wastes, references to 40 CFR Part 266 shall mean rules adopted by DER regarding standards for the management of specific hazardous wastes, and references to 40 CFR Parts 270 and 124 shall mean rules adopted by DER regarding permitting of hazardous waste facilities.

(4) Federal regulations adopted and incorporated by reference in this rule shall become effective upon filing with the Secretary of State. However no such federal regulation adopted as a state rule shall become effective earlier than the effective date of the federal regulation.

Specific Authority: 403.704, 403.8055, F.S.
Law Implemented: 403.72, 403.704, F.S.
History: New 5-28-81; Amended 8-19-81, 12-6-81, 11-5-82, 4-29-83, 1-5-84, 8-24-84, 7-5-85, 9-19-86, 10-31-86, 5-3-88; Previously numbered as 17-30.02; Amended 1-25-89, Formerly 17-30.020, 8-13-90, 9-10-91, 10-14-92.

17-730.021 References, Variances and Case-by-Case Regulations.

(1) The Department adopts by reference the following sections of 40 CFR Part 260 revised as of July 1, 1991:

(a) Sections 260.11, 260.30, 260.31, 260.32, and 260.33, where EPA's incorporation of references and variance procedures are published;

(b) Section 260.21 which authorizes petitions for equivalent testing or analytical methods; and

(c) Sections 260.40 and 260.41, which contain EPA's case-by-case regulation of hazardous waste recycling activities.

(2) The Department adopts by reference 40 CFR Section 270.6 revised as of July 1, 1991, which lists the referenced publications.

Specific Authority: 403.704, 403.8055, F.S.
Law Implemented: 403.704, F.S.
History: New 7-5-85; Amended 1-25-89, Formerly 17-30.021, 8-13-90, 9-10-91, 10-14-92.

17-730.030 Identification of Hazardous Waste.

(1) The Department adopts by reference 40 CFR Part 261 revised as of July 1, 1991, and all appendices. The Department adopts by reference the amendments in the Federal Register dated July 1, 1991 (56 FR 30192), July 17, 1991 (56 FR 32688), and August 27, 1991 (56 FR 42504). This part contains EPA's rules on the identification and listing of hazardous waste. No delisting is effective until it is adopted by the Department.

(2) The following modifications shall apply to 40 CFR Part 261 and its Appendices in order to coordinate with state law and rules:

(a) References to 40 CFR Parts 260.20, 260.21 and 260.22, which contain EPA's rules on rulemaking petitions, shall not change.

(b) References to 40 CFR Part 262 shall mean rules adopted by DER regarding generators of hazardous wastes, reference to 40 CFR Part 263 shall mean rules adopted by DER regarding transporters of hazardous waste, reference to 40 CFR Part 264 and 265 shall mean rules adopted by DER regarding treaters, storers and disposers of hazardous wastes, references to 40 CFR Part 266 shall mean rules adopted by DER regarding standards for the management of specific hazardous waste, references to 40 CFR Parts 270 and 124 shall mean rules adopted by DER regarding permitting of hazardous waste facilities, references to Section 3010 of RCRA shall mean notification requirements of Florida Law.

(c) 40 CFR 261.5(g)(3)(iii) shall refer to hazardous waste management programs approved by EPA.

(d) Any reference to Section 1004(5) of RCRA, which is the definition of hazardous waste, shall mean Section 403.703(23), Florida Statutes.

Specific Authority: Section 403.72, 403.8055, F.S.
Law Implemented: 403.72, F.S.
History: New 5-28-81; Amended 8-19-81, 11-16-81, 2-12-82, 11-5-82, 4-29-83, 1-5-84, 8-24-84, 11-28-84, 7-5-85, 10-3-85, 4-15-86, 7-16-86, 9-19-86, 10-31-86, 3-31-87, 5-3-88; Previously numbered as 17-30.03; Amended 1-25-89, Formerly 17-30.030, 8-13-90, 9-10-91. 10-14-92.

PART II
(RESERVED)

PART III
STANDARDS FOR GENERATORS AND TRANSPORTERS OF HAZARDOUS WASTE AND OWNERS AND OPERATORS OF HAZARDOUS WASTE FACILITIES

17-730.140 Declaration and Intent.

The State of Florida Department of Environmental Regulation promulgates Part III of Chapter 17-730, F.A.C., to establish standards to implement Part IV of Chapter 403, Florida Statutes. These rules establish standards applicable to generators and transporters of hazardous waste and to owners and operators of hazardous waste facilities. The rules are substantively identical to federal Environmental Protection Agency (EPA) regulations in 40 CFR Parts 262, 263, 264, 265, 266, 268, and 270.

Specific Authority: 403.704, 403.721, 403.8055, F.S.
Law Implemented: 403.704, 403.721, 403.722, F.S.
History: New 5-19-82; Amended 7-5-85; Previously numbered as 17-30.14, Formerly 17-30.140, Amended 8-13-90, 10-14-92.

17-730.150 General.

(1) Unless specifically indicated otherwise, when used in any such provisions as adopted from 40 CFR Parts 262, 263, 264, 265, 266, 268, and 270, United States shall mean the State of Florida, EPA shall mean the Department, and Administrator or Regional Administrator shall mean the Secretary of the Department or the Secretary's designee, where appropriate.

(2) Any reference to 40 CFR Parts 270 or 124 as adopted by reference in 40 CFR Parts 262, 263, 264, 265, 266, 268, and 270 shall mean the permitting provisions in Chapters 17-4 or 17-730, FAC, or Section 403.722, Florida Statutes.

(3) Any reference to the Resource Conservation and Recovery Act of 1976 (RCRA) as adopted by reference in 40 CFR Part 262, 263, 264, 265, 266, 268, and 270 shall be construed to refer to comparable provisions of the Florida Resource Recovery and Management Act (FRRMA) as established in Part IV of Chapter 403, Florida Statutes.

(4) The federal regulations adopted by reference herein often contain standards which become enforceable upon a date one year or six months from the effective date of these federal regulations. The effective date of these federal standards remains the same. These federal standards shall be enforceable as Department rules upon the effective date of this rule. In no event shall any Department rule within Chapter 17-730, FAC, become effective prior to its enforceability as a federal regulation.

(5) All references to the term "interim status" in the EPA regulations adopted by reference herein shall not be applicable to these rules. The standards contained in 40 CFR Part 265, adopted by reference herein, shall be effective insofar as their applicability to existing facilities in operation upon the effective date of this rule.

(6) EPA Form 8700-12 is hereby adopted and incorporated by reference as published in the February 26, 1980 Federal Register and revised in the November 29, 1985 Federal Register. All generators, transporters, or persons who own or operate a facility which treats, stores, or disposes of hazardous waste must notify the Department using this form, unless they have notified EPA prior to the effective date of this rule.

(7) EPA Form 8700-13A/B (5-80) (Revised 08-91), OMB#: 2050-0024 is hereby adopted and incorporated by reference. Copies of the form and instructions may be obtained by contacting the Hazardous Waste Regulation Section, Division of Waste Management, Department of Environmental Regulation, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.
Specific Authority: 403.704, 403.721, 403.8055, F.S.
Law Implemented: 403.704, 403.721, 403.722, F.S.
History: New 5-19-82; Amended 1-5-84, 7-5-85, 7-22-85, 4-15-86; Previously numbered as 17-30.15, Formerly 17-30.150, Amended 8-13-90, 10-14-92.

17-730.160 Standards Applicable to Generators of Hazardous Waste.

(1) The Department adopts by reference 40 CFR Part 262 revised as of July 1, 1991, including the Appendix, and the amendments in the Federal Register dated July 1, 1991 (56 FR 30192) with the exception of Section 262.34(e).

(2) A primary exporter of hazardous waste shall file a copy of the advance notification required by 40 CFR 262.53, the annual reports by 40 CFR 262.56, and the exception reports required by 40 CFR 262.55 with the Department.

(3) References in 40 CFR Section 262.34(f) to on-site accumulation of hazardous waste for up to 270 days by generators of greater than 100 kg but less than 1000 kg of hazardous waste in a calendar month shall not apply. Such waste may only be accumulated on-site for 180 days or less without a permit.

(4) Generators of hazardous waste shall complete the following sections of the Uniform Hazardous Waste Manifest: Items 1 through 20, D, F, H, I, and K on Form 8700-22, and Items 21 through 35, O, Q, R, and T on Form 8700-22A.

Copies of the form and instructions may be obtained by contacting the Hazardous Waste Regulation Section, Division of Waste Management, Department of Environmental Regulation, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.

(5) Generators of hazardous waste shall submit biennial reports required by 40 CFR 262.41, as adopted by reference in this section, to the Department on EPA Form 8700-13A/B.
Specific Authority: 403.704, 403.721, 403.8055, F.S.
Law Implemented: 403.704, 403.721, F.S.
History: New 10-19-81; Amended 4-30-82, 4-1-83, 1-5-84, 2-2-84, 8-24-84, 7-5-85, 10-3-85, 9-19-86, 10-31-86, 3-31-87, 5-26-87; Previously numbered as 17-30.16; Amended 6-28-88, 1-25-89, Formerly 17-30.160, Amended 8-13-90, 9-10-91, 10-14-92.

17-730.170 Standards Applicable to Transporters of Hazardous Waste.

(1) The Department adopts by reference 40 CFR Part 263 revised as of July 1, 1991.

(2) In addition to the requirements of paragraph (1) of this Section, no person shall transport a hazardous waste within the state for which either a manifest is required under 40 CFR Part 262 or a reclamation agreement is entered between a generator and recycler pursuant to Part 263.20 unless compliance with the following special requirements has been demonstrated.

(a) The transporter shall have and maintain financial responsibility for sudden accidental occurrences in a minimum amount of $1,000,000 per occurrence for combined coverage of injury to persons and for damage to property and the environment from the spillage of hazardous waste while such wastes are being transported including the costs of cleaning up the spill. Such financial responsibility shall be issued by an agent or company authorized or licensed to transact business in the State of Florida. Such financial responsibility shall be maintained at all times, be exclusive of legal defense costs, and be established by any one or a combination of the following:

1. Evidence of casualty/liability insurance on an occurrence basis with or without a deductible. With the deductible the Insurer is liable for the payment of amounts within any deductible applicable to the policy, with a right of reimbursement by the insured for any such payment made by the Insurer. Each insurance policy must be evidenced by a certificate of liability insurance or amended by attachment of an endorsement.

2. Surety bonds.

(b) Evidence of financial responsibility in the amounts specified above shall be submitted to the department within 180 days of the effective date of this paragraph. Evidence of coverage shall include submittal of an originally signed copy of one or more of the following forms adopted in Florida Administrative Code rule 17-730.900(5):

1. Hazardous Waste Transporter Certificate of Liability Insurance,
2. Hazardous Waste Transporter Liability Endorsement,
3. Hazardous Waste Transporter Liability Surety Bond.

(c) The insurance policy, including all endorsements, or the liability surety bond must be maintained at the carrier's principal place of business.

(d) Whenever requested by the Secretary (or designee) of the Florida Department of Environmental Regulation, the Insurer agrees to furnish to the department a signed duplicate original of the policy and all endorsements.

(e) The transporter shall annually submit to the Department two originally signed Transporter Status Forms (DER Form 17-730.900(5)(d)). The Department shall complete the approval part of the form and return one of the originally signed forms to the transporter after verifying that the transporter is complying with the financial responsibility requirements of this section. A copy of this form complete with the Department approval shall be carried in each vehicle transporting hazardous waste for the transporter. This approval is non-transferrable and non-assignable.

(f) This subsection does not apply to any person who transports hazardous waste only on the site of a hazardous waste generator or a permitted hazardous waste treatment, storage, or disposal facility.

(g) States and the federal government are exempt from the requirements of this subsection.

(3) Evidence of financial responsibility, updated for the current year, shall be verified annually by the submission of the appropriate 17-730.900(5)(a) through (c) form or by the submission of a certificate of insurance. A certificate of insurance shall include a certification by the insurer that the original insurance policy and all endorsements are still in full force and effect as evidenced on the original forms submitted to the Department.

Specific Authority: 403.704, 403.721, 403.724, 403.8055, F.S.

Law Implemented: 403.704, 403.721, 403.724, F.S.

History: New 10-19-81; Amended 5-31-84, 9-13-84, 9-19-86, 3-31-87, 5-26-87; Previously numbered as 17-30.17; Amended 6-28-88, 1-25-89, Formerly 17-30.170, Amended 8-13-90, 9-10-91, 10-14-92.

17-730.171 Transfer Facilities

(1) 40 CFR 263.12 as adopted by reference in Rule 17-730.170, F.A.C. provides that transporters who store manifested hazardous waste in proper containers at a transfer facility for ten (10) days or less are exempt from regulation as a hazardous waste facility. If the waste is stored for more than ten (10) days, the facility is subject to the permitting requirements for a hazardous waste storage facility.

(2) A transfer facility used for storage of hazardous waste for more than 24 hours but ten (10) days or less shall comply with the following requirements as adopted by reference in 17-730.180, F.A.C.:

(a) The transfer facility shall comply with the requirements of 40 CFR 265 Subparts B (general facility standards), C (preparedness and prevention), D (contingency and emergency plan), and I (management of containers), with the exception of 265.13. The 40 CFR 265 requirements referenced above shall apply to transfer facilities notwithstanding 40 CFR Part 265.1(c)(12). The transfer facility shall submit the contingency and emergency plan to the Department. Existing transfer facilities shall submit the contingency and emergency plan within 30 days of the effective date of this rule change. New transfer facilities shall submit the contingency and emergency plan with their first Transfer Facility Notification Form (DER Form 17-730.900(6)).

(b) The transfer facility shall have a written closure plan to show that the facility will be closed in a manner which satisfies the requirements of the closure performance, notification, and decontamination standards of 40 CFR 265.111, 265.112(c), 265.114 and 265.115. The transfer facility shall submit the closure plan to the Department. Existing transfer facilities shall submit the closure plan within 30 days of the effective date of this rule change. New transfer facilities shall submit the closure plan with their first Transfer Facility Notification Form (DER Form 17-730.900(6)).

(c) Records required in this section shall be maintained in permanent form and shall be available for inspection by the Department. The records shall be kept at the facility unless the Department gives written approval to do otherwise.

(d) Hazardous waste stored in containers or vehicles at transfer facilities shall be stored on a manmade surface which is capable of preventing spills or releases to the ground.

(e) Transfer facility shall maintain a written record of when all hazardous waste enters and leaves the facility. This record shall include the generator's name, the generator's EPA/DER identification number, and the manifest number. For conditionally exempt small quantity generators without an EPA/DER identification number, the record shall include the name and address of the generator. This recordkeeping requirement applies to all hazardous wastes including hazardous waste generated by conditionally exempt small quantity generators.

(3) The owner or operator of a transfer facility which stores manifested shipments of hazardous waste for more than 24 hours but ten (10) days or less shall notify the Department on Form 17-730.900(6). The owner or operator of a transfer facility that is in operation on the effective date of this rule, shall submit a notification form by July 1, 1986. The owner or operator of a new facility shall submit a notification form at least 30 days before the storage of hazardous waste is to begin. The transfer facility shall annually update the information on the Transfer Facility Notification Form (DER Form 17-730.900(6)) and send it to the Department by March 1 of each year.

(4) The owner or operator of a transfer facility shall obtain and EPA/DER identification number for each transfer facility location. Any owner or operator who has not obtained an EPA/DER identification number for each transfer facility location may obtain one by applying to the Regional Administrator using EPA Form 8700-12.

Specific Authority: 403.704, 403.721, F.S.
Law Implemented: 403.704, 403.721, F.S.
History: New 3-2-86; Amended 6-28-88, Formerly 17-30.171, Amended 8-13-90, Amended 9-10-91, 10-14-92.

17-730.180 Standards Applicable to Owners and Operators of Hazardous Waste Treatment, Storage and Disposal Facilities.

(1) The Department adopts by reference 40 CFR Part 264 revised as of July 1, 1991, including all appendices except for the amendments in the Federal Registers dated September 1, 1988 (53 FR 33938)and September 28, 1988 (53 FR 37912).

(2) The Department adopts by reference 40 CFR Part 265 revised as of July 1, 1991, including all appendices, with the exception of:

(a) Subpart R; and

(b) The amendments in the Federal Registers dated September 1, 1988 (53 FR 33938) and September 28, 1988 (53 FR 37912).

(3) The Department adopts by reference 40 CFR Sections 264.112(c)(1) and (2), 264.118(d)(1) and (2), 264.141, 264.147, 264.151, 265.112(c)(3) and (4), 265.118(d)(3) and (4), 265.141 and 265.147 revised as of July 1, 1988.

(4)(a) In addition to the other reporting requirements of 40 CFR Part 264 Subpart F as adopted above, whenever the owner or operator is required to determine ground water quality and ground water flow rate and direction, a copy of the complete report of such determination must be submitted to the department within 30 days after the report is finalized.

(b) The corrective action program set forth in 40 CFR 264.100 as adopted above, or another appropriate corrective action program, shall extend beyond the facility property boundary.

(c) In addition to the requirements of 40 CFR 264 Subpart F, as adopted above, the owner or operator shall also comply with the ground water quality standards and criteria of Chapters 17-3 and 17-4, FAC.

(d) The owner or operator shall complete the supplemental ground water monitoring form (DER Form 17-1.216(3), FAC), as part of the hazardous waste permit application unless the Department makes a determination that the facility's existing hazardous waste ground water monitoring program is in substantial compliance with Rule 17-4.245(6), FAC.

(5) Ground water discharge considerations under Section 17-28.700, FAC, shall be incorporated into hazardous waste facility permits issued under this chapter.

(6) An owner or operator required to establish a corrective action program under 40 CFR 264.100 or 264.101 shall establish and maintain financial assurance for corrective action.

(a) The owner or operator required to establish a corrective action program under 40 CFR 264.100 or 264.101 shall provide a detailed written cost estimate in undiscounted current dollars. The cost estimate shall be included in the Corrective Action Plan and shall equal the estimated cost of completing corrective action following the schedule and methods outlined in the Corrective Action Plan.

(b) The cost estimate for corrective action shall:

1. Itemize the separate corrective action costs for each year;

2. Indicate the sum of the separate costs for each year;

3. Indicate the sum of all the costs for corrective action; and

4. Be based on the costs to the owner or operator of hiring a third party to perform corrective action at the facility according to the methods specified in the Corrective Action Plan. A third party is a party that is neither a parent or subsidiary of the owner or operator.

(c) The cost estimate for corrective action shall not:

1. Incorporate any salvage value that may be gained by the sale of hazardous wastes, facility structure or equipment, land or other facility assets at the time of partial or final closures; and

2. Incorporate a zero cost for hazardous waste that might have economic value.

(d) The owner or operator of a facility required to undertake corrective action shall choose from the options described in 40 CFR 264.143 to provide financial assurance for corrective action and shall comply with the requirements of 40 CFR 264.143. The owner or operator shall submit the appropriate forms adopted in Rule 17-730.900(4), F.A.C. The owner or operator shall provide financial assurance for corrective action within 30 days of receiving written approval of the Corrective Action Plan from the Department.

(e) The owner or operator shall adjust the cost estimate for corrective action, including the cost estimates for each year of corrective action, for inflation within 60 days prior to the anniversary date of the established financial instrument(s) used to comply with 40 CFR 264.143. For owners or operators using the financial test or corporate guarantee, the cost estimate for corrective action shall be updated for inflation before submission of updated information as specified in 40 CFR 264.143(f)(3). The adjustment for inflation may be made by recalculating the maximum costs of corrective action in current dollars or by using an inflation factor derived from the most recent annual Implicit Price Deflator for Gross National Product published by the U.S. Department of Commerce in its "Survey of Current Business". The inflation factor is the result of dividing the latest published annual Deflator by the Deflator for the previous year. The owner or operator shall:

1. Make the first adjustment using the inflation factor by multiplying the current corrective action cost estimate by the inflation factor. The result is the adjusted cost estimate for corrective action.

2. Make subsequent adjustments by multiplying the latest adjusted corrective action cost estimate by the latest inflation factor.

17-730.180(6)(b)4. - 17-730.180(6)(e)2.

(f) The owner or operator shall revise the cost estimate for corrective action no later than 30 days after the Department approves a request to modify specified corrective action measures if the change in the measures increases the cost or expected duration of corrective action. The revision shall reflect any change in the total number of years required to perform the corrective action and any changes in the estimated costs for each year of the corrective action. The owner or operator shall adjust the revised corrective action costs for inflation as specified in (e) of this section.

(7) Owners and operators of hazardous waste treatment, storage and disposal facilities shall submit biennial reports required by 40 CFR 264.75 and 265.75, as adopted by reference in this section, to the Department on EPA Form 8700-13A/B.

(8) The Department adopts by reference the amendments in the Federal Registers dated July 1, 1991 (56 FR 30192) and February 18, 1992 (57 FR 5859).

Specific Authority: 403.704, 403.721,403.724, 403.8055, F.S.
Law Implemented: 403.704, 403.721, F.S.
History: New 10-19-81; Amended 2-12-82, 4-30-82, 6-24-82, 8-10-82, 9-17-82, 11-5-82, 2-3-83, 4-1-83, 4-29-83, 1-5-84, 2-2-84, 11-7-84, 7-5-85, 10-3-85, 4-15-86, 9-19-86, 10-31-86, 3-31-87, 5-3-88; Previously numbered as 17-30.18; Amended 6-28-88, 1-25-89, Formerly 17-30.180, Amended 8-13-90, 9-10-91, 10-14-92.

17-730.181 Standards for the Management of Specific Hazardous Wastes and Specific Types of Hazardous Waste Management Facilities.

The Department adopts by reference 40 CFR Part 266 revised as of July 1, 1991 and the amendments in the Federal Registers dated July 17, 1991 (56 FR 32688), August 27, 1991 (56 FR 42504), and September 5, 1991 (56 FR 43874).

Specific Authority: 403.704, 403.721, 403.8055, F.S.
Law Implemented: 403.704, 403.721, F.S.
History: New 7-5-85; Amended 10-3-85, 4-15-86, 5-3-88, 1-25-89, Formerly 17-30.181, Amended 8-13-90, 9-10-91, 10-14-92.

17-730.183 Land Disposal Restrictions.

The Department adopts by reference 40 CFR Part 268 revised as of July 1, 1991, with the exception of 268.5, 268.6, 268.42(b) and 268.44. The authority for implementing these excluded sections remains with the U.S. Environmental Protection Agency.

Specific Authority: 403.704, 403.721, 403.8055, F.S.
Law Implemented: 403.704, 403.721, F.S.
History: New 1-25-89, Formerly 17-30.183, Amended 8-13-90, 9-10-91, 10-14-92.

17-730.180(6)(f) - 17-730.183(History)

PART IV
HAZARDOUS WASTE PERMITTING

17-730.200 Introduction and Scope.

(1) This Part provides the requirements and procedures for the issuance, denial, renewal, modification, and revocation of any research development and demonstration permit, temporary operation permit, operation permit, construction permit, and closure permit for a hazardous waste treatment, storage, or disposal facility as required by the Florida Department of Environmental Regulation.

(2) The provisions of Chapter 17-4, Florida Administrative Code, shall also apply to the permitting of hazardous waste facilities, but only to the extent Chapter 17-4 is consistent with this Part.

(3) Whenever a permit is required pursuant to this Chapter and when other rules of the Department require another type of permit, the Department will make every effort to consolidate the review, issuance, and reissuance of Department permits.

(4) All hazardous waste facilities in operation on the effective date of this rule shall, at a minimum, comply with 40 CFR Part 265 standards as adopted in Section 17-730.180(2), FAC. TOPs issued under Rule 17-730.231, FAC shall include a compliance schedule to bring the facility into compliance with 40 CFR Part 264 standards as adopted in Section 17-730.180(1), FAC. All facilities which do not qualify for a TOP, who have not made timely and proper application for a TOP or whose TOP has expired shall comply with 40 CFR Part 264 standards as adopted in Section 17-730.180(1), FAC.

(5) Nothing in this part shall be construed to prohibit the inclusion of 40 CFR Part 265 standards in a TOP issued under Rule 17-730.231, FAC compliance schedules where the Department determines that their inclusion is the most effective method to achieve the earliest possible compliance.

(6) Permits may be issued or denied for one or more hazardous waste management unit at a facility without simultaneously issuing or denying a permit to all hazardous waste management units at the facility. The permit status of any unit for which a permit has not been issued or denied is not affected by the issuance or denial of a permit to any other unit at the facility.

Specific Authority: 403.704, 403.722, F.S.
Law Implemented: 403.704, 403.722, F.S.
History: New 7-9-82; Amended 9-23-87; Previously numbered as 17-30.20; Amended 6-28-88, Formerly 17-30.200, Amended 9-10-91, 10-14-92.

17-730.200(1) - 17-730.200(History)

17-730.210 Definitions.

(1) The definitions as described in Section 17-730.020, FAC, shall apply to this Part.

(2) In addition, as used in this Part:

(a) "Closure" means the cessation of operation of a hazardous waste facility or unit, and the act of securing such a facility or unit pursuant to the requirements of Section 17-730.180, FAC so that it will pose no significant threat to human health or the environment.

(b) "Notice of deficiency" (NOD) means a certified letter from the Department to a permit applicant indicating those items which were not completed or were inadequate in the original permit application or in subsequent submittals and requesting the submission of the required information.

(c) "Permit" means the legal authorization granted by the Department to engage in or conduct any construction, operation, or closure of any hazardous waste facility or any research development and demonstration facility for a specified period of time.

(d) "Temporary operating permit" (TOP) means the legal authorization, limited to a maximum of 3 years, granted by the Department to operate a hazardous waste facility in accordance with Section 403.722(2), Florida Statutes, and Rule 17-730.231, F.A.C.

Specific Authority: 403.704, 403.722, F.S.
Law Implemented: 403.704, 403.722, F.S.
History: New 7-9-82; Amended 1-5-84, 9-23-87; Previously numbered as 17-30.21, Formerly 17-30.210, Amended, 9-10-91.

17-730.220 Applications for Permits.

(1) Applications for hazardous waste permits shall be made on DER Forms 17-730.900(2)(a) through (d) and shall comply with subsection (5) of this rule.

(2) The following table indicates the minimum number of copies of applications and supporting documents required to be filed with the Department. All copies shall contain original signatures and seals in all instances where a signature or certification is requried.

Permit Type	Minimum Number of Copies
Temporary Operation	4
Construction	4
Operation	4
Closure	5
Research, Development and Demonstration	4

17-730.210(1) - 17-730.220(2)

For more complex applications the Department shall require additional copies. The applicant shall contact the Department prior to submission of the application for the correct number of copies to be submitted.

(3) The Department adopts by reference the following sections of 40 CFR Part 270 revised as of July 1, 1991: 270.1(c)(5) and (6), 270.2, 270.3, 270.4, 270.10, 270.11, 270.12 through 270.26, 270.30, 270.31, 270.33, 270.51, 270.61, 270.62, 270.66, and 270.72. Department adopts by reference the amendments in the Federal Registers dated July 17, 1991 (56 FR 32688) and August 27, 1991 (56 FR 42504).

(4) 40 CFR 270.21(c) is hereby corrected to refer to 40 CFR 264.90(b) instead of 264.302(a) which is a reserved section.

(5) Applicants for a permit shall include with Part II of their permit application the following information in addition to that required by the sections of 40 CFR Part 270 adopted above.

(a) All applicants for a hazardous waste facility permit shall indicate all other federal laws that may apply to the issuance of the permit according to 40 CFR 270.3.

(b) Owners or operators of hazardous waste facilities that store containers of hazardous waste shall include a description of the procedures used to comply with 40 CFR 264.171, 264.172 and 264.173.

(c) Owners or operators of hazardous waste facilities that use tank systems for storage or treating hazardous waste shall include a copy of the plan describing their response to leaks orspills and disposition of leaking or unfit-for-use tank systems as required by 40 CFR 264.196. For tanks systems that do not meet the containment requirements of 40 CFR 264.193, they shall include a description of the leak test or other approved method used to comply with 40 CFR 264.193(i)(1), (2) and (3).

(d) Owners or operators of hazardous waste facilities that treat or dispose of hazardous waste in land treatment units shall include:

1. A description of an unsaturated zone monitoring program that complies with 40 CFR 264.278; and

2. A statement of how the recordkeeping requirements of 40 CFR 264.279 will be met.

(e) Owners or operators of facilities that dispose of hazardous waste in landfills shall include a description of how the surveying and recordkeeping requirements of 40 CFR Part 264.309 will be met.

(f) The owners or operators of facilities that incinerate hazardous waste shall include a certification of the results of monitoring temperatures, waste feed rates, carbon monoxide, and an appropriate indicator of combustion gas velocity. The certification shall include a statement about the precision and accuracy of these measurements for any previously conducted trial burn.

(g) The owners or operators of facilities that treat, store, or dispose of hazardous waste in miscellaneous units shall include an explanation of how the requirements of 40 CFR 264.17 will be met if ignitable, reactive, or incompatible wastes are to be placed in the miscellaneous unit.

(h) Owners or operators of hazardous waste surface impoundments, piles, land treatment units, miscellaneous units, and landfills shall:

1. Include a Well Construction Summary Report (DER Form 17-730.900(2)(b)) for each piezometer, ground water monitoring and recovery well installed as part of initial site assessment, and all ground water monitoring program(s) under 40 CFR Parts 264 and 265.

2. Take all ground water samples without using filters. Filtered samples may be taken for comparison purposes only.

3. Include a Quality Assurance Plan that meets the requirements of Chapter 17-160, F.A.C.

(6) All applications shall be certified by the facility owner, facility operator, and landowner. The determination of the proper person to sign permit applications as owner, operator and landowner shall be made in accordance with the provisions of 40 CFR 270.11.

(7) All applications, plans, specifications, certification of construction completion reports, and other related documents shall be certified by a professional engineer registered in the State of Florida, except as provided in Section 17-4.050(3), FAC.

(8) All applications, plans, specifications and supporting documents, or any part thereof, which involve the practice of professional geology as defined in Chapter 492, Florida Statutes, shall be certified by a professional geologist licensed by the State of Florida.

(9) Hazardous waste facility permitting is subject to the provisions of Section 403.722(10), Florida Statutes, including the following procedures:

(a) The Department, within 30 days of receipt of a complete application for a hazardous waste facility construction permit, shall notify each unit of local government within 3 miles of the proposed facility that a permit application has been received and shall publish notice, in a newspaper of general circulation in the area of the proposed facility, that a complete permit application has been received.

(b) Within 135 days after receipt of the original permit application, the last item of timely requested additional information, or the applicant's written request to begin processing the application, the Department shall send to the applicant by certified mail a copy of the Department's intent to issue or deny the permit, and, in the case of an intent to issue, a request for publication and broadcast of the notice of the proposed permit issuance. The Department shall also transmit a written notice of the Department's intention to issue the permit to each unit of local government having jurisdiction over the area in which such facility is or will be located.

(c) Within 30 days of the Department's request to publish the notice of the Department's intent to issue a permit under this Chapter, the applicant shall cause to be published in a major local newspaper or newspapers of general circulation, and broadcast over a local radio station or stations, notice of the Department's intention to issue the permit. The applicant shall provide the Department with proof of the publication and broadcast required by this paragraph within 14 days of receipt of proof of publication.

(d) If within 45 days after publication and broadcast as required in paragraph (c) the Department receives written notice of opposition to the agency's intention to issue such permit and a request for a hearing, the Department shall provide for a hearing pursuant to Section 120.57, F.S., if requested by a substantially affected party or an informal public meeting if requested by any other person. Failure to request a hearing within the 45-day period shall constitute a waiver of the right to a hearing under Section 120.57, F.S. The Department shall provide at least 30 days public notice prior to the holding of such hearing or meeting.

(10) All applicants for hazardous waste permits shall provide the information required by this Part and by DER Forms 17-730.900(2)(a) through (d) to the Department.

(11) The applicant shall comply with the requirements of Section 403.722(12), Florida Statutes.

Specific Authority: 403.704, 403.722, F.S.
Law Implemented: 403.704, 403.722, 403.723, F.S.
History: New 7-9-82; Amended 1-5-84, 8-19-84, 7-22-85, 9-23-87, 6-28-88, 12-12-88; Previously numbered as 17-30.22, Formerly 17-30.220, Amended 8-13-90, 9-10-91, 10-14-92.

17-730.230 Temporary Operation Permits For Existing Facilities. Specific Authority: 403.704, 403.722, F.S.
Law Implemented: 403.704, 403.722, F.S.
History: New 7-9-82; Amended 9-23-87; Previously numbered as 17-30.23, Formerly 17-30.230, Repealed 8-13-90.

17-730.231 Newly Regulated Facilities.

(1) Any person who owns or operates a hazardous waste facility which is in existence on the effective date of a rule change by the Department which would for the first time require the facility to obtain a hazardous waste permit, shall be deemed to have a Temporary Operation Permit (TOP) provided the owner or operator has complied with the following requirements:

(a) The owner or operator has complied with the notice requirements of Section 403.72(2), Florida Statutes, and

(b) The owner or operator submits a completed and signed Application for a Hazardous Waste Facility Permit Part I (DER Form 17-730.900(2)(a)) and Application for a Hazardous Waste Facility Permit Certification (DER Form 17-730.900(2)(d)) within 30 days of the effective date of the rule amendment that requires the facility to obtain a hazardous waste permit.

(2) A facility operating under a TOP pursuant to this Section shall not:

(a) Treat, store or dispose of any hazardous waste not specified in Part I of the permit application;

(b) Employ any process not specified in Part I of the permit application; and

(c) Exceed the design capacities specified in Part I of the permit application.

(3) A facility operating under a TOP pursuant to this Section shall comply with the standards of 40 CFR Part 265 as adopted by reference in Section 17-730.180, FAC.

(4) Changes in the type of waste managed, design capacity, process, or ownership or operational control of the facility may be made upon approval by the Department in accordance with the standards and criteria for such changes set forth in 40 CFR 270.72.

(5) TOPs deemed to be issued under this Section may be modified, revoked or enforced in the same manner as any other hazardous waste permit.

(6) No facility shall be eligible for a TOP under this Section if it has previously been denied a State of Florida hazardous waste permit or has had a State of Florida hazardous waste permit revoked provided such denial or revocation has not been superseded by final order or a judicial determination. No facility shall be eligible for a TOP under this Section if it has failed to qualify for federal interim status for any waste code or has lost interim status for any waste code, pursuant to applicable federal regulations.

(7) TOPs for land disposal facilities under this Section shall terminate one year after the date upon which the facility first became subject to permitting requirements unless the owner or operator of the facility certifies compliance with groundwater and financial requirements of Section 17-730.180, FAC and submits a complete application for an operation or construction permit prior to the end of the one year period.

(8) TOPs for all facilities other than land disposal under this Section shall terminate one year after the date upon which the facility first became subject to permitting requirements unless a complete application for an operation or construction permit is received prior to the end of the one year period.

(9) Owners or operators of land disposal facilities seeking a TOP shall submit, within 60 days after the date upon which the facility first became subject to permitting requirements, a Ground Water Monitoring Plan proposal to satisfy the requirements of 40 CFR Part 264 Subpart F. The Ground water Monitoring Plan proposal shall include a Quality Assurance Project Plan that satisfies the requirements of Chapter 17-160, FAC.

(10) No public notice of a facility's qualification for a TOP under this Section is required. However, nothing in this section shall affect any rights which may exist under Chapter 120, F.S., and Chapter 17-103, FAC.

(11) This Section shall not apply to any facility which was required to obtain a TOP under a Department final order entered prior to the effective date of this rule provided that such order is not subject to judicial review.

(12) A facility operating under a TOP shall apply for a closure permit as described in Rule 17-730.260, FAC, before the TOP terminates if the facility decides not to continue to operate. The TOP terminates one year from the date the facility first became subject to the permitting requirements.

Specific Authority: 403.704, 403.722, 403.814, F.S.
Law Implemented: 403.704, 403.722, F.S.
History: New 9-23-87; Amended 6-28-88, Formerly 17-30.231, Amended 8-13-90, 9-10-91, 10-14-92.

17-730.240 Operation Permits.

(1) No person shall begin operation of a hazardous waste facility without applying for and receiving an operation permit from the Department. Hazardous waste facilities that are issued an operation permit shall comply with 40 CFR Part 264 standards adopted in Section 17-730.180, FAC, except for hazardous waste management units for which no Part 264 standards have been adopted in which case Part 265 standards shall apply.

(2) Except as provided in Sections 17-730.231(7) and (8) and 17-730.250(7), F.A.C., facilities operating with a TOP issued pursuant to Rule 17-730.231, F.A.C., must apply for an operation permit before the termination of the TOP. The TOP terminates one year from the date the facility becomes subject to the permitting requirements.

(3) Operation permits shall be issued for up to five years and shall be renewable. Operation permits shall not be issued for less than five years without cause.

Specific Authority: 403.088, 403.704, 403.707, F.S.
Law Implemented: 403.704, 403.722, F.S.
History: New 7-9-82; Amended 9-23-87; Previously numbered as 17-30.24, Formerly 17-30.240, Amended 9-10-91, 10-14-92.

17-730.250 Construction Permits.

(1) No person shall begin construction or major modification of any unit at a hazardous waste facility without applying for and receiving a construction permit from the Department.

(2) Construction permits for incinerators may allow a period of time necessary for trial burns pursuant to 40 CFR 264 Subpart O. An owner or operator of an incinerator shall submit an application for an operating permit within 90 days after a trial burn or within 135 days before expiration of the construction permit, whichever date is sooner. After the completion of a successful trial burn, an owner or operator of an incinerator may operate under the

construction permit until final agency action is taken on the operation permit, provided the facility is in compliance with 40 CFR Part 264 standards and the conditions of the construction permit.

(3) An owner or operator of a facility other than an incinerator may operate under its construction permit until final agency action is taken on the operation permit so long as the facility is in compliance with 40 CFR Part 264 standards, and makes timely application for an operation permit. For purposes of this rule, timely application shall mean application for an operation permit at least 135 days prior to expiration of the construction permit.

(4) Notwithstanding subsection (1) above, no permit shall be required under this section in order to construct a facility if such facility is constructed pursuant to approval by the Department and EPA under other appropriate regulatory programs for the incineration of polychlorinated biphenyls. Any person owning or operating such a facility may at any time after construction or operation has begun, file an operation permit application to incinerate hazardous waste at the facility.

(5) No major modification to a facility, which includes the construction or expansion of hazardous waste management units shall be undertaken without application for and receipt of a construction permit. Modifications which do not require a construction permit may require a permit modification under Section 17-730.290, FAC. No construction permit shall be required for changes made solely for the purposes of complying with the requirements of 40 CFR 265.193 as adopted by reference in Section 17-730.180, FAC.

(6) No person operating a hazardous waste transfer facility may alter operations or modify the facility so that it becomes a hazardous waste treatment, storage or disposal facility without first obtaining a hazardous waste construction permit.

(7) The owner or operator of a facility which is operating or has operated under a Temporary Operating Permit (TOP) and which has made timely application for a construction permit pursuant to Rule 17-730.231(7) or (8), F.A.C., may continue to temporarily operate until the construction permit application is denied or until final agency action is taken on an operation permit for the facility provided:

(a) The facility is in compliance with the construction permit conditions;

(b) The facility is in compliance with 40 CFR Part 265 standards; and

17-730.250(2)(cont'd.) - 17-730.250(7)(b)

(c) The owner or operator of the facility submits an application for an operation permit at least 135 days prior to the expiration of the construction permit.

Specific Authority: 403.704, 403.722, F.S.
Law Implemented: 403.704, 403.722, F.S.
History: New 7-9-82; Amended 9-23-87, 12-12-88; Previously numbered as 17-30.25, Formerly 17-30.250, Amended 7-3-89, 8-13-90, 9-10-91, 10-14-92.

17-730.260 Closure Permits.

(1) No person shall close a hazardous waste facility or conduct post-closure activities at a facility without applying for and receiving a hazardous waste closure permit. Application for closure permits shall be made on forms 17-730.900(2)(a) through (d) and at the time specified for the notification of a closure in 40 CFR 264.112(d) or 40 CFR 265.112(d) as adopted in Rule 17-730.180, FAC. or at the time specified in a permit issued under 17-730 F.A.C.

(2) All post closure care requirements of this Chapter shall be performed pursuant to a closure permit and applicable closure rules. The owner or operator shall apply for renewal of the closure permit at least 135 days prior to its expiration throughout the post closure period.

(3) Closure permits may contain a compliance schedule which allows the applicant to demonstrate that the facility has been "clean closed" pursuant to the requirements of 40 CFR 264 and 265 Subpart G as adopted by reference in Section 17-730.180, FAC and that post closure care is not required. The permit shall provide that if such a demonstration is not successful, all post closure care requirements shall apply and the permit may be modified accordingly.

(4) Facilities which are closing under 40 CFR Part 264 standards but which have not been required to meet performance standards for new landfills shall not be required to meet the double liner and leachate collection requirement of 40 CFR 264 Subpart N at closure.

(5) If closure or post-closure plans have been approved by the Department as part of a TOP, construction, or operation permit application, the applicant for a closure permit shall include a copy of the approved closure (40 CFR 264.112) or post-closure (40 CFR 264.118) plans with the application. The applicant shall also either:

(a) Attach a certification stating that no changes have been made to the plans; or

17-730.250(7)(c) - 17-730.260(5)(a)

(b) Provide an amended plan showing all the changes which have been made, or are proposed to be made to the plans.
Specific Authority: 403.704, 403.722, F.S.
Law Implemented: 403.704, 403.722, F.S.
History: New 7-9-82; Amended 9-23-87; Previously numbered as 17-30.26; Amended 6-28-88, Formerly 17-30.260, Amended 9-10-91, 10-14-92.

17-730.270 Exemptions.

(1) No permit under this Chapter shall be required for the following:

(a) An ocean disposal barge or vessel, if the owner or operator:

1. Has and complies with a Federal permit for ocean dumping issued under 40 CFR Part 220, and

2. Complies with 40 CFR Sections 264.11, 264.71, 264.72, 264.73(a) and (b)(1), 264.75, and 264.76 as adopted in Section 17-730.180, FAC.

(b) A Publicly Owned Treatment Works (POTW), if the owner or operator:

1. Has and complies with a National Pollutant Discharge Elimination System (NPDES) permit, if required, and an applicable State domestic waste permit issued by the Department,

2. Complies with 40 CFR Sections 264.11, 264.71, 264.72, 264.73(a) and (b)(1), 264.75, and 264.76 as adopted in Section 17-730.180, FAC,

3. Accepts only waste which meets all Federal, State, and local pretreatment requirements which would be applicable to the waste if it were being discharged into the POTW through a sewer, pipe, or similar conveyance, and

4. For permits issued after November 8, 1984, complies with 40 CFR 264.101 as adopted in Section 17-730.180, FAC.

(c) An injection well, if the owner or operator:

1. Has and complies with a State underground injection permit issued by a federally approved State Underground Injection Control program,

2. Complies with 40 CFR 264.11, 264.16, 264.71, 264.72, 264.73(a), (b)(1), and (b)(2), 264.75, and 264.76 as adopted in Section 17-730.180, FAC, and

3. For permits issued after November 8, 1984, complies with 40 CFR 264.101 as adopted in Section 17-730.180, FAC.

(2) Notwithstanding any other provision in Chapter 17-7, FAC, a facility which has been issued a permit under this Chapter shall not be required to obtain a solid waste permit for the activities addressed in the hazardous waste permit.

(3) The following persons shall not be required to obtain a hazardous waste TOP, operation, construction, or closure permit:

(a) Generators of hazardous waste and hazardous waste facilities exempted or excluded from the hazardous waste permit program under other applicable provisions of federal or state law, rules or regulations.

(b) Generators of waste or facilities managing such wastes if those wastes are specifically excluded from the hazardous waste program under other applicable provisions of federal or state law, rules or regulations.
Specific Authority: 403.704, 403.722, F.S.
Law Implemented: 403.704, 403.7045, 403.722, F.S.
History: New 7-9-82; Amended 9-23-87; Previously numbered as 17-30.27, Formerly 17-30.270.

17-730.280 Permit Conditions.

(1) The Department may establish any permit conditions which are necessary to assure compliance with the applicable requirements of Chapter 17-730, FAC, and shall include those conditions required by 40 CFR Sections 270.30 and 270.31.

(2) A permit issued under this Chapter does not convey any property rights or exclusive privileges of any sort.

(3) Permits issued under this Chapter shall include any permit conditions necessary to protect human health and the environment.

(4) Permits may, when appropriate in order to protect human health and the environment, specify a schedule of compliance designed to lead to full compliance with this Chapter. Such compliance schedules shall be established based upon the criteria set forth in 40 CFR Sections 270.14 and 270.33.
Specific Authority: 403.704, 403.722, F.S.
Law Implemented: 403.704, 403.722, F.S.
History: New 7-9-82; Amended 10-25-84, 9-23-87; Previously numbered as 17-30.28; Amended 6-28-88, Formerly 17-30.280, Amended 8-13-90, 9-10-91.

17-730.290 Permit Modification.

(1) After notice, and administrative hearing if requested by the permittee or a substantially affected party, the Department may require the permittee to conform to new or additional conditions upon a showing of good cause. For the purposes of this Section good cause shall include, but not be limited to, the following:

(a) The standards or rules on which the permit was based have been changed by amendment or judicial decision after the permit was issued;

(b) The Department has received information which was not available at the time of permit issuance and would have justified different permit conditions;

(c) There are alterations in the facility after permit issuance which justify different permit conditions but do not require a construction permit; or

(d) the causes set forth in 40 CFR Sections 270.41 and 270.42.

(2) When a permit is to be modified only the conditions subject to modification are opened. All other aspects of the permit shall remain in effect.

(3) Upon a written request by the permittee, the Department shall grant or deny modifications to the permit.

(4) Permit modifications which are Class 2 and Class 3 modifications as set forth in 40 CFR Section 270.42, shall be accompanied by public notice as required in Section 17-730.220(6)(c) and (d). Permit modifications which are Class 1 modifications as set forth in 40 CFR Section 270.42 are minor modifications and may be made without public notice.

Specific Authority: 403.704, 403.722, F.S.
Law Implemented: 403.704, 403.722, F.S.
History: New 7-9-82; Amended 10-25-84, 9-23-87; Previously numbered as 17-30.29, Formerly 17-30.290, Amended 7-3-89, 8-13-90, 9-10-91.

17-730.300 Permit Renewal and Transfer.

(1) Prior to 135 days before the expiration of any hazardous waste operation permit, the permittee shall apply for an operation permit renewal unless the facility is to be closed prior to the expiration of the existing permit and no post closure care is required or post closure care has been completed. The Department will review the renewal permit application and issue or deny the permit in accordance with 40 CFR 270.51. The application requirements for renewal of an operation permit are as follows:

(a) Owners or operators of facilities where there are changes to the facility plan or its operation, or there are regulatory changes that effect its operation, shall submit a complete application for a hazardous waste facility permit, prepared according to Rule 17-730.220, F.A.C., and the permit renewal fee.

(b) Owners or operators of facilities which have operated under the existing permit without any facility or regulatory changes shall submit either a complete application for a hazardous waste facility permit, prepared according to Rule 17-730.220, F.A.C., and the permit renewal

fee or a letter stating that there are no changes to the application filed in support of the existing permit, an Application for a Hazardous Waste Facility Permit Certification (DER Form 17-730.900(2)(d)), and the permit renewal fee.

(2) Permits issued under this Part may be transferred by the permittee to a new owner or operator only upon Department approval. Application for transfer shall be made at least 90 days before the effective date of the transfer and shall include:

(a) A properly completed Application for Transfer of Permit Form (17-1.201(1));

(b) A demonstration that the new owner or operator meets the financial responsibility requirements adopted in Section 17-730.180, FAC; and

(c) A certification stating that no changes are to be made which would require modification of the permit, or a proposal for modification.

(d) A completed Application for Hazardous Waste Facility Permit Part I (DER Form 17-730.900(2)(a)).

(e) A completed Application for Hazardous Waste Facility Permit Certification (DER Form 17-730.900(2)(d)).

(3) The prior owner or operator shall comply with the requirements of 40 CFR 264 Subpart H until the new owner or operator has demonstrated compliance with that Subpart.

Specific Authority: 403.704, 403.722, F.S.
Law Implemented: 403.704, 403.722, F.S.
History: New 7-9-82; Amended 9-23-87; Previously numbered as 17-30.30; Amended 6-28-88, Formerly 17-30.300, Amended 8-13-90, 10-14-92.

17-730.310 Availability of Information.

(1) Pursuant to Chapter 119, Florida Statutes, all documents, papers, or other material received or made by the Department in connection with its hazardous waste program are public records. Except as provided below, all such information is available for inspection at reasonable times and under reasonable conditions. The Department shall furnish copies of public records upon payment of the actual cost of duplication. In the case of public records for which no claim of trade secret has been made under this Section, records shall be made available as soon as possible but in no event later than 20 working days from the receipt of a request. A requestor of information for which no claim of trade secret has been made may seek remedies pursuant to Subsection (7) below.

(2) When requests for records are not sufficient to identify and locate the requested records the Department shall promptly notify the requestor and make every reasonable effort to assist in the identification and description of records requested.

(3) Any person who submits information to the Department pursuant to this Chapter may assert a claim of trade secret confidentiality under Section 403.73, Florida Statutes. In order to assert such a claim the information submitted must be accompanied by a cover letter which explains what information is a trade secret and why it is believed to be a trade secret. In addition each page of the material subject to the claim shall be prominently stamped or marked "Confidential Trade Secret". Information submitted to the Department without a proper claim of trade secret confidentiality shall be treated as a public record. Material which would not be considered confidential business information under 40 CFR Part 2 Subpart B shall not be considered a trade secret for purposes of this section.

(4) Upon receipt of information upon which a trade secret claim has been made the Department shall place the material upon which the claim has been made in a separate confidential file and shall place a notice in the public record file that such confidential information exists. The Department may, after notice and opportunity for hearing, determine that the material is not a trade secret and is not confidential.

(5) Any person who requests the right to inspect material for which a claim of trade secret confidentiality has been made shall be promptly informed of their rights under this rule and under Chapter 119, F.S.

(6) Any person may request confidential trade secret records by filing a written request with the Department's Office of General Counsel. The Department shall issue a notice of its intent to release the information or to keep it confidential within 20 working days of receipt of a request which properly describes the identity and location of the information pursuant to Subsection (2). The notice shall be sent to both the requestor and the person asserting the trade secret claim. Failure of the Department to take action within the 20 day period shall constitute final agency action to not release the information and the requestor may seek judicial review provided below.

(7) The requestor or the party asserting the claim of trade secret may file an action in circuit court pursuant to Section 119.11, F.S.

Specific Authority: 403.704, 403.722, F.S.
Law Implemented: 403.704, 403.722, F.S.
History: New 7-9-82; Amended 9-23-87; Previously numbered as 17-30.31; Amended 6-28-88, Formerly 17-30.310.

17-730.320 Emergency Detonation or Thermal Treatment of Certain Hazardous Waste

(1) Certain hazardous wastes, due to their origin, age, and storage conditions have become a hazard to their surroundings. Because of the flammable, shock sensitive and explosive nature of the wastes, there is an immediate danger and imminent hazard to persons and property in the surrounding area. Therefore, an authorization is granted for the emergency detonation or treatment of reactive hazardous wastes, as defined in F.A.C. Chapter 17-730, provided:

(a) The person having custody of the waste contacts the Department and obtains oral or written permission prior to detonation or treatment. If the permission is oral it must be followed within five days by a written order. Written orders shall be accompanied by the publication of public notice.

(b) The waste is highly reactive, shock sensitive, or explosive and can only be safely disposed of through its prompt detonation or treatment.

(c) The type and amount of waste to be detonated is specified to the Department. Only those wastes specified may be disposed of under this permit.

(d) The detonation or treatment is conducted or supervised by local law enforcement officials, bomb squads, or other officials or agencies experienced in the handling and disposal of explosives,

(e) The time and place of the detonation or treatment is specified in the notice to the Department.

(f) The procedures for the detonation or treatment is specified in the notice to the Department.

(g) Permission granted under this rule shall not exceed 90 days.

(h) Permission granted under this rule shall include all applicable requirements of Chapter 17-730 to the extent possible and not inconsistent with the emergency situation.

(2) This authority shall be subject to the following specific conditions:

(a) All other local, state, and federal approvals and licenses required for the activities allowed in this authorization shall be obtained.

(b) Visible residual materials shall be recovered from the site and properly disposed of in accordance with Department rules.

(c) Adequate fire protection to assure confinement and control of any fire resulting from the operation shall be provided.

(d) The local Department representative or their designee shall be notified and may be present to observe the treatment or detonation.

(e) Prior to treatment or detonation, the site shall be secured and no site access allowed except by authorized personnel. The area around the site shall be visually inspected to assure that no unauthorized personnel are present. The securing and inspection of the site shall be made to at least the following distances:

POUNDS OF WASTE EXPLOSIVE	MINIMUM DISTANCE
0 to 100	204 meters (670 feet)
101 to 1,000	380 meters (1250 feet)
1,001 to 10,000	530 meters (1730 feet)
10,001 to 30,000	690 meters (2260 feet)

(f) Thermal treatment or detonation shall be conducted only at the times and place specified in the permittee's notice to the Department.

(g) The Department may require, as a condition of its approval, that soil sampling be conducted before and after the detonation or treatment.

(h) The authorized person shall submit to the Department a written summary of the detonation or treatment which shall include actual procedures used, disposition of any residues from the process, and other pertinent information.

Specific Authority: 403.704, 403.721, F.S.
Law Implemented: 403.061, 403.704, 403.721, 403.726, F.S.
History: New 9-30-85; Previously numbered as 17-30.32, Formerly 17-30.320.

17-730.330 Research Development and Demonstration Permits.

(1) The Department may issue a research, development, and demonstration permit for any hazardous waste treatment facility which proposes to utilize an innovative and experimental hazardous waste treatment technology or process for which permit standards for such experimental activity have not been promulgated under 40 CFR 264 or 266 as adopted in Sections 17-730.180, 17-730.181, FAC. Such permits:

(a) Shall provide for the construction of such facilities as necessary, and for operation of the facility for not longer than one year unless renewed as provided in paragraph (4) of this Section,

(b) Shall provide for the receipt and treatment by the facility of only those types and quantities of hazardous waste which are necessary for purposes of determining the efficiency and performance capabilities of the technology or process and the effects of such technology or process on human health and the environment, and

(c) Shall include such requirements as are necessary to protect human health and the environment (including, but not limited to, requirements regarding monitoring, operation, financial responsibility, closure, and remedial action), and such requirements as are necessary regarding testing and providing of information to the Department with respect to the operation of the facility.

(2) For the purpose of expediting review and issuance of permits under this Section, the Department shall, consistent with the protection of human health and the environment, modify or waive permit application and permit issuance requirements except that there may be no modification or waiver of regulations regarding financial responsibility (including insurance) or of procedures regarding public participation.

(3) The Department shall require immediate termination of all operations at the facility at any time it determines that termination is necessary to protect human health and the environment.

(4) Any permit issued under this Section may be renewed not more than three times. Each such renewal shall be for a period of not more than 1 year.

Specific Authority: 403.704, F.S.
Law Implemented: 403.7221, F.S.
History: New 9-23-87; Amended 6-28-88, Formerly 17-30.330.

PART V
HAZARDOUS WASTE FORMS

17-730.401 Forms.
Specific Authority: 120.53(1), 403.061, F.S.
Law Implemented: 120.53(1), 120.55, 403.0875, F.S.
History: New 11-30-82; Amended 4-1-83, 5-5-83, 8-22-83, 3-1-84, 5-31-84, 9-17-84, 10-29-84, 2-11-85; Transferred from 17-1.207(1) and (3)-(6), and Amended 2-6-86, 4-8-86, 9-23-87; Transferred to 17-30.900 6-28-88, Formerly 17-30.401.

17-730.900 Forms.

The forms used by the Department in the Hazardous Waste Management Program are adopted and incorporated by reference in this section. The forms are listed by rule number, which is also the form number, and with the subject title and effective date. In order to facilitate the initial submission of a complete application, applicants for hazardous waste permits are encouraged to use the Hazardous Waste Facility Permit Application Instructions, which provide guidance to the forms and assistance in assuring that the application complies with the provisions of 40 CFR Part 270 and this Chapter. Copies of the forms and instructions may be obtained by writing to the Hazardous Waste Regulation Section, Division of Waste Management, Department of Environmental Regulation, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.

(1) Governmental Hazardous Waste Notification Form for the calendar year 19_____, December 1, 1984.

(2) Application for a Hazardous Waste Facility Permit Forms.

(a) Part I - General, September 10, 1991.

(b) Well Construction Summary Report, September 10, 1991.

(c) Information Regarding Potential Releases from Solid Waste Management Units, September 10, 1991.

(d) Certification, September 10, 1991.

(3) Reserved.

(4) Hazardous Waste Financial Responsibility Forms.

(a) Hazardous Waste Facility Letter from Chief Financial Officer to Demonstrate Closure and/or Post-Closure Financial Assurance, October 1, 1987.

(b) Hazardous Waste Facility Letter from Chief Financial Officer to Demonstrate Liability Coverage or to Demonstrate Both Liability Coverage and Assurance of Closure or Post-Closure Care, October 1, 1987.

(c) Hazardous Waste Facility Corporate Guarantee, October 1, 1984.

(d) Hazardous Waste Facility Corporate Guarantee for Liability Coverage, October 14, 1992.

(e) Hazardous Waste Facility Trust Fund Agreement to Demonstrate Closure and/or Post-Closure Financial Assurance, October 1, 1984.

(f) Hazardous Waste Facility Standby Trust Fund Agreement, October 1, 1984.

(g) Hazardous Waste Facility Irrevocable Letter of Credit, October 1, 1984.

(h) Hazardous Waste Facility Financial Guarantee Bond, October 1, 1987.

(i) Hazardous Waste Facility Performance Bond, October 1, 1984.

(j) Hazardous Waste Facility Closure/Post-Closure Insurance Certificate, October 1, 1984.

(k) Hazardous Waste Facility Certificate of Liability Insurance (Primary Policy), October 1, 1984.

(l) Hazardous Waste Facility Certificate of Liability Insurance (Excess/Surplus Policy), October 1, 1984.

(m) Hazardous Waste Facility Endorsement (Primary Policy), October 1, 1984.

(n) Hazardous Waste Facility Endorsement (Excess/Surplus Policy), October 1, 1984.

(5) Hazardous Waste Transporter Financial Responsibility Forms.

(a) Hazardous Waste Transporter Certificate of Liability Insurance, October 14, 1992.

(b) Hazardous Waste Transporter Liability Endorsement, October 14, 1992.

(c) Hazardous Waste Transporter Liability Surety Bond, October 14, 1992.

(d) Hazardous Waste Transporter Status Form, October 14, 1992.

(6) Transfer Facility Notification Form, October 14, 1992.

Specific Authority: 120.53, 403.061, F.S.
Law Implemented: 120.53, 120.55, 403.0875, F.S.
History: New 11-30-82; Amended 4-1-83, 5-5-83, 8-22-83, 3-1-84, 5-31-84, 9-17-84, 10-29-84, 2-11-85; Transferred from 17-1.207(1) and (3)-(6), and Amended 2-6-86, 4-8-86, 9-23-87; Transferred from 17-30.401, and Amended 6-28-88; Amended 12-12-88, 7-3-89, Formerly 17-30.900, Amended 8-13-90, 9-10-91, 10-14-92.

USED OIL MANAGEMENT

CHAPTER 17-710

CHAPTER 17-710
USED OIL MANAGEMENT

17-710.100 Intent.

The intent of this chapter is to implement the provisions of Sections 403.75 through 403.769, Florida Statutes. This chapter establishes a program for registration, reporting, and recordkeeping by handlers of used oil; certification of used oil transporters; and permitting of used oil recycling facilities.
Specific Authority: 403.061, 403.704, F.S.
Law Implemented: 403.75 through 403.769, F.S.
History: New 2-25-85; Previously Numbered as 17-7.60; Formerly 17-7.600; Amended 1-17-90.

17-710.200 Definitions.

The definitions in Chapter 17-701, F.A.C., are adopted herein. In addition the following words, phrases or terms as used in this Chapter, unless the context indicates otherwise, shall have the following meaning:

(1) "Public used oil collection center" means:

(a) An automotive service facility or government-sponsored collection facility which accepts for disposal small quantitites of used oil from households; or

(b) A facility which stores used oil in above-ground tanks which are approved by the Department, and which accepts small quantities of used oil from households.

(2) "Collection" means the accumulation of used oil from one's own operations or from other persons.

(3) "Used oil" means any oil which has been refined from crude oil or synthetic oil and, as a result of use, storage, or handling has become unsuitable for its original purpose due to the presence of impurities or loss of its original properties, but which may be suitable for further use and is economically recyclable.

(4) "Recycling" means to prepare used oil for reuse as a petroleum product by rerefining, reclaiming, reprocessing, or other means or to use used oil in a manner that substitutes for a petroleum product made from new oil.

(5) "Reclaiming" means the use of methods other than those used in rerefining, to purify used oil primarily to remove insoluble contaminants, making the oil suitable for further use. The methods may include, but are not limited to, settling, heating, dehydration, filtration, or centrifuging.

(6) "Rerefining" means the use of refining processes on used oil to produce high-quality base stocks for lubricants or other petroleum products. Rerefining may include, but is not limited to, distillation, hydrotreating, or treatments employing acid, caustic, solvent, clay, or other chemicals, or physical treatments other than those used in reclaiming.

(7) "Oily wastes" means those portions of a used oil shipment which are separated from the used oil and may be discarded after appropriate testing and in compliance with other applicable state and local requirements. Oily wastes include, but are not limited to, wastewaters, centrifuge solids, filter residues or sludges, bottom sediments, tank bottoms, and sorbents resulting from used oil handling or processing.

(8) "Used oil recycling facility" means any facility that recycles more than 10,000 gallons of used oil annually.
Specific Authority: 403.061, 403.704, F.S.
Law Implemented: 403.703, 403.75, F.S.
History: New 2-25-85; Amended 5-21-85; Previously Numbered as 17-7.61; Formerly 17-7.610; Amended 1-17-90.

17-710.400 Prohibitions.

(1) No person may collect, transport, store, recycle, use, or dispose of used oil or oily wastes in any manner which endangers the public health or welfare or the environment.

(2) No person may discharge used oil into soils, sewers, drainage systems, septic tanks, surface or ground waters, watercourses, or marine waters.

(3)(a) Except as provided in (b), no person may mix or commingle used oil with solid waste that is to be disposed of in landfills or directly dispose of used oil in landfills.

(b) The Department shall allow disposal of used oil commingled with solid waste if it determines that it is not practicable to separate the used oil from the solid waste, and if such disposal will pose no significant threat to public health or the environment.

(4) Any person who unknowingly disposes into a landfill any used oil which has not been properly segregated or separated from other solid wastes by the generator is not guilty of a violation under this rule.

(5) No person may mix or commingle used oil with hazardous substances that make the used oil unsuitable for recycling or beneficial use.

(6) Used oil shall not be used for road oiling, dust control, weed abatement or other similar uses that may release used oil into the environment.

Specific Authority: 403.061, 403.704, F.S.
Law Implemented: 403.751, F.S.
History: New 2-25-85; Previously Numbered as 17-7.62; Formerly 17-7.620; Amended 1-17-90.

17-710.500 Registration and Notification.

(1) The following persons shall annually register their used oil handling activities with the Department on DER Form 17-710.900(1).

(a) Any person who annually transports more than 500 gallons of used oil over public highways;

(b) Any person who owns or operates a collection facility that receives or accumulates more than 6,000 gallons of used oil annually. For the purpose of registration, the amount received does not include used oil delivered to collection centers by individuals that change their own personal motor; and

(c) Any person who recycles more than 10,000 gallons of used oil annually.

(2) The registration form shall be accompanied by a registration fee of $25 for each activity.

(3) Upon receipt of the completed form and fee, the Department shall issue to each registered collection or recycling facility a validated registration form and number which shall be valid for one year. For transporters, acknowledgement of registration shall be included in the certification process of Rule 17-710.600, F.A.C. The registration shall be valid from July 1 of the year of registration or renewal until June 30 of the following year.

(4) Each collection and recycling facility location shall be registered with the Department. The validated registration form and number shall be displayed in a prominent place at each facility.

(5) Transporters may submit one registration form for their entire transportation fleet.

(6) Each public used oil collection center shall notify the Department no later than 30 days after first accepting used oil from the public on DER Form 17-710.900(6). The Department shall acknowledge filing of the notification within 30 days of receipt.

Specific Authority: 403.061, 403.704, F.S.
Law Implemented: 403.704, 403.754, 403.760, F.S.
History: New 2-25-85; Previously Numbered as 17-7.63; Formerly 17-7.630; Amended 1-17-90.

17-710.510 Recordkeeping.

(1) Each registered person who transports or recycles used oil shall maintain records on DER Form 17-710.900(2) or on substantially equivalent forms approved by the Department. These records shall include, but are not limited to, the following information:

(a) The source of the used oil to be transported or recycled, including the name and street address of each source, the used oil registration number of the source, if applicable, and the source code designation found in the form instructions;

(b) The total number of gallons of used oil received from each source, including any oily wastes which may be an integral part of the used oil shipment;

(c) The type of used oil received, using the type code designation found in the form instructions;

(d) The date of receipt; and

(e) The destination or end use of used oil and oily wastes, including name and street address of each destination or end user, the used oil registration number, if applicable, and the end use code designation found in the form instructions.

(2) The records required by this section shall be retained by the transporter or recycling facility for a period of three years. The records shall be kept at the street address of the registered transporter or recycling facility and shall be available for inspection by the Department during normal business hours.

Specific Authority: 403.061, 403.704, F.S.
Law Implemented: 403.754, 403.760, F.S.
History: New 2-25-85; Previously Numbered as 17-7.64; Formerly 17-7.640; Amended 1-17-90.

17-710.520 Reporting.

(1) No later than July 1 of each year, each registered collection facility, transporter or recycling facility shall submit an annual report for the preceding calendar year to the Department on DER Form 17-710.900(3).

(2) The report shall summarize the records kept pursuant to Rule 17-710.510, F.A.C.

(3) No later than July 1 of each year, each public used oil collection center shall submit to the Department an estimate of the quantity of used oil accepted from the public during the previous calender year. The Department shall advise each public used oil collection center of this requirement by June 1 of each year.

Specific Authority: 403.061, 403.704, F.S.
Law Implemented: 403.754, 403.760, F.S.
History: New 2-25-85; Previously Numbered as 17-7.65; Formerly 17-7.650; Amended 1-17-90.

17-710.530 Exemptions.

(1) An electric utility which generates used oil which is recycled, rerefined, or reclaimed by the electric utility for use in its operations is not required to register or report pursuant to this Rule. However, an electric utility which acquires used oil from another source shall comply with the provisions of this Rule.

(2) A facility which generates used oil and the same used oil is burned as an on-specification used oil fuel as defined under 40 CFR Part 266 at that same facility is exempt from registration requirements if the used oil is burned in compliance with any permits issued by the Department.

Specific Authority: 403.061, 403.704, F.S.
Law Implemented: 403.754, F.S.
History: New 2-25-85; Previously Numbered as 17-7.66; Formerly 17-7.660; Amended 1-17-90.

17-710.600 Certification of Used Oil Transporters

(1) Any person who transports over public highways after January 1, 1990, more than 500 gallons of used oil annually shall be a certified used oil transporter, except:

(a) Local governments or private solid waste haulers under contract to a local government that transport used oil collected from households to a public used oil collection center;

(b) Persons who transport less than 55 gallons of used oil daily that is stored in tightly closed containers of 55 gallons or less, which are secured in a totally enclosed section of the transport vehicle; or

(c) Persons who transport their own used oil generated at their own non-contiguous operations to their own central collection facility for recycling. Such used oil must be transported in sealed United States Department of Transportation approved containers. However, these persons shall comply with the requirements of Rule 17-710.600(2)(d), F.A.C.

(2) To become certified, used oil transporters shall:

(a) Register annually with the Department and comply with the annual reporting and recordkeeping requirements pursuant to Rules 17-710.500, 17-710.510 and 17-710.520, F.A.C.;

(b) Show evidence of familiarity with applicable state laws and rules governing used oil transportation by submitting a training program for approval to the Department which includes provisions for at least the following:

1. Compliance with state and federal rules governing used oil;

2. Proper used oil management practices, including appropriate response action to any release or spill;

3. An introduction of the new employee to the applicable laws and rules before unsupervised driving of a used oil transportation vehicle; and

4. Verification that company personnel handling or transporting used oil have successfully completed the training program. New employees shall complete the training program as soon as possible, but no later than 90 days after beginning employment.

(c) Maintain a record of training in the company's operating record and the individual personnel files indicating the type of training received along with the dated signature of those receiving and providing the training. These records shall be available for review by Department personnel during inspections; and

(d) Demonstrate, and annually verify, proof of liability insurance, or other means of financial responsibility, for any liability which may be incurred in the transport of used oil. Such financial responsibility shall cover sudden and accidental occurrences involving bodily injury and property damage in the amount of at least $100,000 Combined Single Limit.

1. The $100,000 Combined Single Limit is the minimum amount of financial responsibility that every used oil transporter must demonstrate. Depending on vehicle size and weight other restrictions and financial responsibility requirements may be imposed by the Federal or State Departments of Transportation or other agencies.

2. The financial responsibility required in this paragraph may be established by any one or a combination of the following:

a. Evidence of liability insurance, either on a claim made or an occurrence basis, with or without a deductible (with the deductible, if any, to be on a per occurrence or per accident basis and not to exceed ten percent of the equity of the business), using DER Form 17-710.900(4).

b. Other evidence of financial responsibility approved by the Department. Such proof may include, but is not limited to; surety bonds, certificates of deposit, letters of credit, trust fund agreements, or financial tests.

3. States and the federal government are exempt from the requirements of paragraph (d).

(3) An annual statement in conjunction with the annual registration required under Rule 17-710.500, F.A.C., shall be submitted to the Department, which states that the training program is still operating and is being adhered to, and which provides an explanation of any modifications to the training program.

(4) The Department shall issue to each transporter complying with the requirements of this section a certificate and number, which shall be valid for one year. Transporters, except for common carriers and those who carry used oil in drums, shall permanently apply the certification number to each transport vehicle. Common carriers and transporters hauling used oil in drums may use removable marking panels to display their certification numbers. The certification number shall be:

(a) Displayed prominently on the rear of each vehicle at least 12 inches away from any required DOT placard.

(b) Displayed such that each numeral or character is at least 6 inches in height and 3 1/2 inches in width and is printed using a Gothic style.

(c) Of a solid color which sharply contrasts with the background color of the vehicle or removable marking panel. The background color of the removable marking panel shall not be orange.

(d) Kept clean on the vehicle or removable marking panel so that it can be easily read.

(5) If removable marking panels are used to display certification numbers, they shall meet the general construction specifications of 49 CFR Part 172, Section 519(a), (b) and (e). The marking panels shall not be diamond-shaped.

(6) Certifications may be denied or revoked for failure of the used oil transporter to comply with the provisions of this Rule or the authorizing Act, for refusal to allow lawful inspection of required records, or for deliberate submission of false or inaccurate information.

Specific Authority: 403.061, 403.704, 403.767, F.S.
Law Implemented: 403.767, F.S.
History: New 1-17-90.

17-710.800 General Permits for Used Oil Recycling Facilities

(1) An owner or operator of a used oil recycling facility shall operate, modify, or close such a facility only pursuant to a general permit, and shall meet the applicable general permit requirements in Rules 17-4.510 through 17-4.540, F.A.C., and the requirements of this rule.

(2) Before operating, modifying, or closing a facility under a general permit, the owners or operators of used oil recycling facilities shall notify the Department on Form 17-710.900(5). An existing facility shall notify the Department within 90 days after the effective date of this rule. The notification for a new facility or a renewal of a general permit shall be submitted 30 days before the operation begins or an existing general permit expires.

(3)(a) A used oil recycling facility shall have and submit to the Department as part of its general permit notification a written closure plan to show how the facility will be closed to meet the following requirements:

1. There will be no need for further facility maintenance;

2. Used oil will not contaminate surface or ground water; and

17-710.600(4)(a) -- 17-710.800(3)(a)2.

3. All soils will be free of oil, and equipment will be emptied and cleaned or dismantled.

(b) The closure plan shall be updated whenever significant operational changes occur or design changes are made.

(c) The closure plan shall be maintained with records required under Rule 17-710.510, F.A.C.;

(4) The general permit for a used oil recycling facility shall be valid for five years. A general permit may be renewed by submission of the notification required in subsection (2).

(5) Permits shall not be required under this section for the burning of used oil as a fuel, provided:

(a) A valid Department air permit is in effect for the facility; and

(b) The facility burns used oil in accordance with applicable United States Environmental Protection Agency regulations, local government regulations, and the requirements of its Department air permit.

(6) No permit is required under this section for the use of used oil for the beneficiation or flotation of phosphate rock.

Specific Authority: 403.704, 403.814, F.S.
Law Implemented: 403.814, 403.769, F.S.
History: New 1-17-90.

17-710.900 Forms.

The forms and instructions used by the Department in the Used Oil Management Program are adopted and incorporated by reference in this section. The form is listed by rule number, which is also the form number, and with the subject, title and effective date. Copies of forms may be obtained by writing to the Used Oil Management Coordinator, Bureau of Waste Planning and Regulation, Division of Waste Management, Department of Environmental Regulation, 2600 Blair Stone Road, Tallahassee, Florida, 32399-2400.

(1) Application for Registration, Used Oil Collection and Recycling Facilities and Transporters, effective January 17, 1990.

(2) Used Oil Recordkeeping Form, effective January 17, 1990.

(3) Annual Report by Used Oil Facilities and Transporters, effective January 17, 1990.

(4) Used Oil Transporter Certificate of Liability Insurance, effective January 17, 1990.

(5) Used Oil Recycling Facility General Permit Notification, effective January 17,
1990. (6) Public Used Oil Collection Center Notification, effective January 17, 1990.

Specific Authority: 120.53(1), 403.061, F.S.
Law Implemented: 403.754, 403.760, 403.767, 403.769, 403.814, F.S.
History: New 1-17-90.

17-710.800(3)(a)3. -- 17-710.900 History

APPENDIX 7
OMS Waste Material Characteriztion Form

OGDEN MARTIN SYSTEMS, INC.
MATERIAL CHARACTERIZATION FORM

GENERAL INFORMATION

1.0 Name and Nature of Material
- 1.1 (Select One and Supply Name)
  - Raw Material _____
  - Intermediate Product _____
  - Production Waste _____
  - Finished Product _____
    - If Finished Product (Check One)
      - _____ Over The Counter
      - _____ Prescription
      - _____ Other
        - Description Of Other _____

2.0 Reason for Disposal
- 2.1 (Check One)
  - _____ Reject
  - _____ Expired
  - _____ Defective
    - Nature Of Defect _____
  - _____ Other
    - Description Of Other _____

3.0 Physical Form
- 3.1 (Check One)
  - _____ Liquid
  - _____ Powder
  - _____ Slurry
  - _____ Granular
  - _____ Other
    - Description of Other _____

4.0 Material Characteristics
- 4.1 Is It A Known Hazardous Material? (Circle One) Yes / No
- 4.2 Is The Material Characterized As: (Check All That Apply)
  - _____ Toxic
  - _____ Explosive
  - _____ Corrosive

PACKAGING DETAILS

1.0 Product Packaging
- 1.1 (Check One)
  - _____ Consumer Packaged
  - _____ Bulk Delivery
- (Check All That Apply)
  - _____ Plastic
  - _____ Paper
  - _____ Foil
  - _____ Other
    - Description Of Other _____

2.0 Shipping Packaging
- 2.1 (Check One)
  - _____ Roll-Off Containers
  - _____ Fiber Drums
  - _____ Gaylord Boxes
  - _____ Plastic Buckets
  - _____ Other
    - Description Of Other _____
- 2.2 Volume Per Package
  - Gallons _____
  - Cubic Feet _____
  - Pounds _____

3.0 Delivery Schedule
- 3.1 Frequency (Check One)
  - _____ One Time Shipment
  - _____ Monthly
  - _____ Quarterly
  - _____ Bi-Annually
  - _____ Annually
  - _____ Other
    - Description Of Other _____
- 3.2 Estimated Tons Per Delivery _____
- 3.3 Estimated Percentage of Delivery Weight That Is Packaging _____

OGDEN MARTIN SYSTEMS, INC.
MATERIAL CHARACTERIZATION FORM

PHYSCIAL CHEMICAL CHARACTERISTICS

1.0 Type of Detail Attached

1.1 (Check All That Apply)

_____ MSDS (Required on raw materials and whenever else available)

_____ Package Inserts (required on finished products if no MSDS)

_____ TCLP Test Results (required on all requests except raw materials and finished products. Entire lab report with with regulatory criteria for all organics and metals.)

_____ Total Metals (required on all requests except raw materials and finished products. Entire lab report with range of concentrations.)

_____ Sample (required on all requests except raw materials and and finished products.)

2.0 General Information

2.1 CAS Number _____

2.2 Boiling Point _____

2.3 Melting Point _____

2.4 Volatile Nature _____

2.5 Particle Size _____

3.0 Chemical Names And Formula

3.1 Active Ingredients

NAME AND FORMULA	PERCENT

3.2 Inactive Ingredients

NAME AND FORMULA	PERCENT

CURRENT DISPOSAL PRACTICE

1.0 Type of Facility Currently Used

1.1 (Check One)

_____ Municipal Landfill

_____ Hazardous Landfill

_____ Nonhazardous Incinerator

_____ Hazardous Incinerator

_____ Other

Description Of Other _____

SAFETY/STORAGE ISSUES

1.0 Worker Safety

1.1 Describe Any Safety Equipment Required During Handling

_____

_____

_____

_____

2.0 Fire Protection

1. Is Material Flammable? (Circle One) Yes / No

1.2 Describe Recommended Fire Fighting Equipment And Techniques

_____

_____

_____

_____

3.0 Other Requirements

3.1 Describe Any Other Handling And Storage Requirements

_____

_____

_____

_____

CERTIFICATION SIGN-OFF

I hereby certify that all information submitted in this and all attached documents contain true and accurate descriptions of this material; and all relevant information regarding known or suspected hazards in the possession of the owner has been disclosed. I further certify that the material is nonhazardous and pose no serious public safety or health threat.

Signature _____ Title _____

Name (print) _____ Date _____

APPENDIX 8
OMS of Pasco "Weekly Performance Summaries"

The following Summary Reports are included in this Appendix:

1. August 13, 1993 to August 19, 1993

2. August 20, 1993 to August 26, 1993*

3. August 27, 1993 to September 2, 1993

4. September 3, 1993 to September 9, 1993

* - Indicates Peak Processing Period

The first page of each Summary Report provides the tonnage processed. The second page of the report, under the material signified as "Special Waste", provides the total tons of debris processed from the Tampa Bay Oil Barge Spill cleanup.

Route Summary Report For 08/13/93 through 08/19/93

Route	Date	Receipts	Tonnage
AF / ASH FILL	08/13	13	357.31
	08/14	5	150.14
	08/16	18	526.85
	08/17	14	411.76
	08/18	7	204.02
	08/19	7	218.21
Route Totals:		64	1,868.29
MB / MASS BURN	08/13	115	985.59
	08/14	78	515.87
	08/16	151	1,207.75
	08/17	167	1,373.59
	08/18	160	1,478.39
	08/19	168	1,400.79
Route Totals:		839	6,961.98
PC3 / PASCO COUNTY CLASS 3	08/18	1	3.90
Route Totals:		1	3.90
RC / RECYCLING	08/13	2	44.11
	08/16	1	21.27
	08/17	2	39.43
	08/18	1	20.33
	08/19	2	38.58
Route Totals:		8	163.72
SP / STOCK PILE	08/19	26	284.51
Route Totals:		26	284.51
Report Totals:		938	9,282.40

TONS MSW PROCESSED 8/13-8/19/93 6959.59

Material Summary Report For 08/13/93 through 08/19/93

Material	Route	Receipts	Net Tons
ASH / ASH	AF / ASH FILL	64	1,868.29
ASH Totals:		64	1,868.29
FM / FERROUS METALS	RC / RECYCLING	8	163.72
FM Totals:		8	163.72
NP / NON-PROCESSIBLE	PC3 / PASCO COUNTY CLASS	1	3.90
NP Totals:		1	3.90
SP / SPECIAL WASTE	MB / MASS BURN	42	489.25
SP Totals:		42	489.25
SW / SOLID WASTE	MB / MASS BURN	503	5,159.51
SW Totals:		503	5,159.51
TC / TIRE CHIPS	MB / MASS BURN	6	51.18
TC Totals:		6	51.18
WC / WOOD CHIPS	MB / MASS BURN	110	1,147.46
	SP / STOCK PILE	26	284.51
WC Totals:		136	1,431.97
YW / YARD WASTE	MB / MASS BURN	178	114.58
YW Totals:		178	114.58
Report Totals:		938	9,282.40

TONS OILY DEBRIS: 8/13-8/19/93

Route Summary Report For 08/20/93 through 08/26/93

Route	Date	Receipts	Tonnage
AF / ASH FILL	08/20	15	482.34
	08/21	8	262.79
	08/23	18	578.15
	08/24	13	409.76
	08/25	7	215.12
	08/26	6	182.67
Route Totals:		67	2,130.83
MB / MASS BURN	08/20	116	1,058.49
	08/21	79	693.89
	08/23	143	1,171.75
	08/24	141	1,074.34
	08/25	165	1,386.01
	08/26	125	1,140.50
Route Totals:		769	6,524.98
RC / RECYCLING	08/20	2	36.74
	08/24	2	40.91
	08/25	3	58.46
	08/26	2	40.01
Route Totals:		9	176.12
SP / STOCK PILE	08/20	24	241.76
Route Totals:		24	241.76
Report Totals:		869	9,073.69

* PEAK OILY DEBRIS PROCESSING WEEK

TONS MSW PROCESSED 8/20-8/26/93

Date: 08/26/93 Pasco Resource Recovery Facility Page: 1

Material Summary Report For 08/20/93 through 08/26/93

Material	Route	Receipts	Net Tons
ASH / ASH	AF / ASH FILL	67	2,130.83
ASH Totals:		67	2,130.83
FM / FERROUS METALS	RC / RECYCLING	9	176.12
FM Totals:		9	176.12
SP / SPECIAL WASTE	MB / MASS BURN	88	1,396.68
SP Totals:		88	1,396.68
SW / SOLID WASTE	MB / MASS BURN	501	4,970.15
SW Totals:		501	4,970.15
TC / TIRE CHIPS	MB / MASS BURN	4	42.09
TC Totals:		4	42.09
WC / WOOD CHIPS	SP / STOCK PILE	24	241.76
WC Totals:		24	241.76
YW / YARD WASTE	MB / MASS BURN	176	116.06
YW Totals:		176	116.06
Report Totals:		869	9,073.69

TONS OILY DEBRIS 8/20-8/26/93

* PEAK OILY DEBRIS PROCESSING WEEK

Route Summary Report For 08/27/93 through 09/02/93

Route	Date	Receipts	Tonnage
AF / ASH FILL	08/27	11	337.58
	08/28	9	255.51
	08/30	13	375.19
	09/01	16	453.33
Route Totals:		49	1,421.61
MB / MASS BURN	08/27	132	1,355.16
	08/28	65	572.12
	08/30	119	1,373.43
	08/31	119	1,175.68
	09/01	88	996.03
	09/02	108	1,111.74
Route Totals:		631	6,584.16
C / RECYCLING	08/27	2	38.06
	08/30	1	21.24
	08/31	2	34.54
Route Totals:		5	93.84
Report Totals:		685	8,099.61

Tons MSW PROCESSED 8/27-9/2/93

Material Summary Report For 08/27/93 through 09/02/93

Material	Route	Receipts	Net Tons
ASH / ASH	AF / ASH FILL	49	1,421.61
ASH Totals:		49	1,421.61
FM / FERROUS METALS	RC / RECYCLING	5	93.84
FM Totals:		5	93.84
SP / SPECIAL WASTE	MB / MASS BURN	52	793.21
SP Totals:		52	793.21
SW / SOLID WASTE	MB / MASS BURN	486	5,577.38
SW Totals:		486	5,577.38
TC / TIRE CHIPS	MB / MASS BURN	13	140.56
TC Totals:		13	140.56
YW / YARD WASTE	MB / MASS BURN	80	73.01
YW Totals:		80	73.01
Report Totals:		685	8,099.61

TONS OILY DEBRIS 8/27-09/02/93

Route Summary Report For 09/03/93 through 09/09/93

Route	Date	Receipts	Tonnage
AF / ASH FILL	09/03	3	94.28
	09/04	9	274.40
	09/06	9	259.54
	09/07	12	321.36
	09/08	6	170.43
	09/09	5	164.15
Route Totals:		44	1,284.16
MB / MASS BURN	09/03	148	1,072.18
	09/04	107	575.64
	09/06	87	863.83
	09/07	115	1,042.12
	09/08	108	1,121.19
	09/09	124	1,034.30
Route Totals:		689	5,709.26
PC3 / PASCO COUNTY CLASS 3	09/09	1	3.68
Route Totals:		1	3.68
RC / RECYCLING	09/03	1	20.70
	09/07	2	37.61
Route Totals:		3	58.31
Report Totals:		737	7,055.41

TONS MSW PROCESSED 9/3/93-9/9/93

Material Summary Report For 09/03/93 through 09/09/93

Material	Route	Receipts	Net Tons
ASH / ASH	AF / ASH FILL	44	1,284.16
ASH Totals:		44	1,284.16
FM / FERROUS METALS	RC / RECYCLING	3	58.31
FM Totals:		3	58.31
NP / NON-PROCESSIBLE	PC3 / PASCO COUNTY CLASS	1	3.68
NP Totals:		1	3.68
SDW / STORM DAMAGED SW	MB / MASS BURN	3	1.34
SDW Totals:		3	1.34
SP / SPECIAL WASTE	MB / MASS BURN	5	43.72
SP Totals:		5	43.72
SW / SOLID WASTE	MB / MASS BURN	509	5,399.98
SW Totals:		509	5,399.98
TC / TIRE CHIPS	MB / MASS BURN	24	161.12
TC Totals:		24	161.12
YW / YARD WASTE	MB / MASS BURN	148	103.10
YW Totals:		148	103.10
Report Totals:		737	7,055.41

TONS OILY DEBRIS 9/3/93 - 9/9/93

APPENDIX 9
OMS of Pasco Continuous Emissions Monitoring Data
July and August 1993

OMS of Pasco has three municipal waste combustors. The CEM data for July and August 1993 includes daily averages for the: 1) 6-Minute, 2) 1-Hour, and 3) Rolling Averages, as required by Permit for each unit. The week of August 20 to 26, 1993 was the peak processing period in which waste from the Tampa Bay Oil Barge Spill cleanup was processed at Pasco. As highlighted on the data sheets, Opacity is displayed on the 6-Minute averaging blocks, as required by Permit. Carbon Monoxide (CO) and Sulfur Dioxide (SO_2) are provided for in 6-Minute, 1-Hour and Rolling Averages, as required by Permit (ie. 1-Hr CO - 400 ppm and 8-Hr CO - 100 ppm; 3-Hr SO_2 - 104 ppm and 6-Hr SO_2 - 60 ppm). The data used for comparative analysis is the stack-corrected data. The stack-corrected data is noted as "SC" next to the subject pollutant on the heading portion of each data sheet.

AUGUST 1993
6-Minute Daily Averages
Unit Nos. 1, 2 and 3

Peak processing period was between August 20 to 26, 1993, when approximately 20% of the total solid waste stream consisted of oily debris.

AUGUST 93

MONTHLY DATA SUMMARY

NAME: Unit #1 6 Min. Data LOCATION: PASCO, FL STATION ID: 1

CHAN NAME	OPs	SO2s	COs	CO2s	O2s	SO2sc		
CHAN UNITS	%	PPM	PPM	%	%	ppm		
FULL SCALE	100.0	200.0	500.0	20.0	25.0	200.0	1000	100.0
ZERO OFFSET	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
START / CHANNEL	01	02	03	04	05	06	07	08
08/01/93	1.6<	16.8<	17.3<	9.5<	10.1<	21.5<	0<	0.0
08/02/93	1.7<	16.0<	14.5<	9.6<	10.1<	20.5<	0<	0.0<
08/03/93	1.6<	22.3<	13.7<	9.6<	10.2<	28.9<	0<	0.0<
08/04/93	1.4<	23.0<	14.0<	10.2<	9.8<	29.1<	0<	0.0
08/05/93	1.4<	18.5<	17.8<	10.4<	9.6<	22.3<	0<	0.0
08/06/93	1.4<	16.0<	20.00	9.70	9.10	19.4<	0<	0.0
08/07/93	1.2<	15.9<	14.50	10.00	9.50	19.3<	0<	0.0
08/08/93	1.3<	20.5<	14.50	10.00	9.60	25.4<	0<	0.0
08/09/93	1.3<	18.2<	16.40	10.10	9.60	22.2<	0<	0.0<
08/10/93	1.3<	18.5<	12.50	10.10	9.50	24.0<	0<	0.0
08/11/93	1.4<	24.3<	13.5<	10.1<	9.7<	29.6<	0<	0.0
08/12/93	1.4<	23.0<	14.0<	10.3<	9.5<	27.9<	0<	0.0
08/13/93	1.5<	22.9<	16.2<	10.1<	9.6<	28.3<	0<	0.0
08/14/93	1.5<	29.0<	12.4<	10.1<	9.5<	35.2<	0<	0.0
08/15/93	1.6<	30.3<	16.1<	10.2<	9.5<	37.0<	0<	0.0
08/16/93	1.3<	23.6<	14.7<	9.6<	9.9<	30.0<	0<	0.0
08/17/93	1.0<	6.9<	37.7<	3.4<	17.1<	10.9<	0<	0.0
08/18/93	1.2<	30.7<	18.8<	9.7<	9.8<	38.2<	0<	0.0
08/19/93	1.2<	22.6<	23.5<	9.6<	10.0<	28.7<	0<	0.0<
08/20/93	1.2<	21.2<	22.3<	9.8<	9.8<	26.4<	0<	0.0
08/21/93	1.2<	16.6<	15.5<	9.7<	10.0<	21.1<	0<	0.0
08/22/93	1.3<	19.8<	32.5<	9.4<	10.3<	25.9<	0<	0.0
08/23/93	1.3<	13.2<	17.1<	9.3<	10.3<	17.3<	0<	0.0
08/24/93	1.3<	1.2<	21.2<	1.1<	19.7<	3.4<	0<	0.0
08/25/93	0.8<	0.1<	0.3<	-0.1<	21.0<	0.1<	0<	0.0
08/26/93	0.8<	-0.2<	0.3<	-0.2<	21.0<	0.0<	0<	0.0
08/27/93	0.8<	1.9<	0.3<	-0.1<	21.0<	0.6<	0<	0.0
08/28/93	0.8<	2.8<	0.1<	-0.1<	20.9<	15.6<	0<	0.0
08/29/93	0.7<	2.0<	0.0<	-0.1<	20.9<	32.9<	0<	0.0
08/30/93	0.7<	0.2<	0.0<	-0.1<	21.0<	0.0<	0<	0.0
08/31/93	0.7<	-0.1<	0.0<	0.0<	21.0<	0.0<	0<	0.0<
Monthly Minimum 6-minute Values	0.3	-26.2	0.0	-0.2	5.4	0.0	0	0.0
Monthly Maximum	8.8	195.3	495.8	13.0	21.1	291.8	0	0.0
Monthly Minimum 1-day Values	0.7	-0.2	0.0	-0.2	9.5	0.0	0	0.0
Monthly Maximum	1.7	30.7	37.7	10.4	21.0	38.2	0	0.0
Monthly Average	1.2	15.2	13.5	6.4	13.7	20.7	0	0.0
Monthly Total	8927.8	107541	79982	38149	81043	150763	0	0.0
Month Recovery	98.31	94.89	79.74	79.74	79.74	98.04	98.04	99.14

PEAK PROCESSING PERIOD

UNIT OFFLINE

Printed 03/31/94 15:46:42

AUGUST 93

MONTHLY DATA SUMMARY

NAME: Unit #1 6 Min. Data LOCATION: PASCO, FL STATION ID: 1

CHAN NAME	COsc	
CHAN UNITS	PPM	
FULL SCALE	1500.0	0.0
ZERO OFFSET	0.0	0.0
START / CHANNEL	09	10
08/01/93	21.9<	0.0B
08/02/93	18.3<	0.0B
08/03/93	17.9<	0.0B
08/04/93	17.6<	0.0B
08/05/93	20.5<	0.0B
08/06/93	29.2<	0.0B
08/07/93	17.0<	0.0B
08/08/93	17.0<	0.0B
08/09/93	19.4<	0.0B
08/10/93	14.3<	0.0B
08/11/93	17.5<	0.0B
08/12/93	16.6<	0.0B
08/13/93	19.5<	0.0B
08/14/93	14.7<	0.0B
08/15/93	19.3<	0.0B
08/16/93	18.7<	0.0B
08/17/93	43.3<	0.0B
08/18/93	24.3<	0.0B
08/19/93	32.2<	0.0B
08/20/93	29.6<	0.0B
08/21/93	19.3<	0.0B
08/22/93	52.6<	0.0B
08/23/93	22.2<	0.0B
08/24/93	8.0<	0.0B
08/25/93	0.0<	0.0B
08/26/93	0.0<	0.0B
08/27/93	0.4<	0.0B
08/28/93	1.8<	0.0B
08/29/93	0.1<	0.0B
08/30/93	0.0<	0.0B
08/31/93	0.0<	0.0B

PEAK PROCESSING PERIOD

UNIT OFFLINE

Monthly Minimum 6-minute Values	0.0	Miss
Monthly Maximum	1209.0	Miss
Monthly Minimum 1-day Values	0.0	Miss
Monthly Maximum	52.6	Miss
Monthly Average	17.2	Miss
Monthly Total	125536	Miss
Month Recovery	98.04	0.00

August 93

MONTHLY DATA SUMMARY

NAME: Unit #2 6 Min. Data LOCATION: PASCO, FL STATION ID: 4

CHAN NAME	OPs	SO2	COs	CO2s	O2s	SO2sc		
CHAN UNITS	%	PPM	PPM	%	%	ppm		
FULL SCALE	100.0	200.0	500.0	20.0	25.0	200.0	1000	100.0
ZERO OFFSET	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
START / CHANNEL	01	02	03	04	05	06	07	08
08/01/93	0.4<	10.5<	21.6<	8.8<	10.6<	14.2<	0<	0.0
08/02/93	0.5<	9.4<	17.2<	8.8<	10.6<	12.8<	0<	0.0<
08/03/93	0.4<	18.3<	14.9<	9.0<	10.6<	24.6<	0<	0.0
08/04/93	0.3<	23.6<	12.3<	9.8<	9.8<	29.5<	0<	0.0
08/05/93	0.1<	18.5<	12.9<	10.2<	9.4<	20.6<	0<	0.0
08/06/93	0.8<	18.2<	12.9<	9.90	9.10	23.0<	0<	0.0
08/07/93	0.7<	17.7<	12.1<	10.10	9.40	21.4<	0<	0.0
08/08/93	0.8<	20.9<	12.7<	10.20	9.40	25.2<	0<	0.0
08/09/93	1.0<	16.6<	14.4<	10.10	9.50	20.3<	0<	0.0<
08/10/93	1.1<	20.4<	12.4<	9.90	9.30	17.9<	0<	0.0
08/11/93	1.1<	16.5<	13.1<	9.9<	9.7<	18.9<	0<	0.0
08/12/93	1.1<	13.0<	14.7<	10.0<	9.6<	15.9<	0<	0.0
08/13/93	1.0<	14.6<	19.1<	9.9<	9.8<	18.3<	0<	0.0
08/14/93	0.7<	6.1<	13.9<	9.9<	9.7<	7.7<	0<	0.0
08/15/93	0.8<	25.0<	14.8<	9.8<	9.9<	31.6<	0<	0.0
08/16/93	0.5<	8.9<	14.5<	9.6<	9.9<	11.0<	0<	0.0
08/17/93	0.9<	22.0<	17.5<	9.8<	9.8<	27.6<	0<	0.0
08/18/93	0.5<	12.9<	88.6<	8.4<	11.4<	39.3<	0<	0.0
08/19/93	0.5<	25.0<	28.4<	8.9<	11.0<	26.0<	0<	0.0
08/20/93	0.5<	18.1<	18.9<	9.6<	10.1<	23.2<	0<	0.0<
08/21/93	0.6<	14.6<	36.8<	9.1<	10.8<	19.7<	0<	0.0
08/22/93	0.5<	16.5<	20.5<	9.3<	10.5<	22.0<	0<	0.0
08/23/93	0.4<	15.7<	17.7<	9.1<	10.6<	21.1<	0<	0.0
08/24/93	0.7<	19.2<	12.6<	9.4<	10.3<	25.2<	0<	0.0
08/25/93	1.0<	13.9<	15.6<	9.2<	10.5<	18.6<	0<	0.0
08/26/93	1.2<	5.7<	19.7<	9.2<	10.7<	8.4<	0<	0.0
08/27/93	1.1<	6.9<	23.3<	8.9<	10.9<	9.7<	0<	0.0
08/28/93	1.2<	11.5<	23.6<	9.1<	10.5<	15.1<	0<	0.0
08/29/93	1.2<	10.5<	23.1<	9.2<	10.4<	13.8<	0<	0.0
08/30/93	1.3<	11.9<	19.8<	9.0<	10.6<	15.9<	0<	0.0
08/31/93	1.2<	13.1<	22.1<	9.1<	10.4<	17.1<	0<	0.0<
Monthly Minimum 6-minute Values	-0.5	-2.5	4.3	0.5	5.7	0.0	0	0.0
Monthly Maximum	32.2	181.1	496.0	13.4	20.5	230.3	0	0.0
Monthly Minimum 1-day Values	0.1	5.7	12.1	8.4	9.4	7.7	0	0.0
Monthly Maximum	1.3	25.0	88.6	10.2	11.4	39.3	0	0.0
Monthly Average	0.8	15.0	20.1	9.3	10.3	19.9	0	0.0
Monthly Total	5658.3	97636	146303	55096	61252	145096	0	0.0
Month Recovery	98.32	87.46	97.73	79.58	79.58	98.19	98.19	99.15

PEAK PROCESSING PERIOD

AUGUST 93

MONTHLY DATA SUMMARY

NAME: Unit #2 6 Min. Data LOCATION: PASCO, FL STATION ID: 4

CHAN NAME	COsc	
CHAN UNITS	PPM	
FULL SCALE	1500.0	0.0
ZERO OFFSET	0.0	0.0
START / CHANNEL	09	10
08/01/93	29.4<	0.0
08/02/93	23.4<	0.0<
08/03/93	19.4<	0.0
08/04/93	15.0<	0.0
08/05/93	14.7<	0.0
08/06/93	15.0<	0.0
08/07/93	14.3<	0.0
08/08/93	14.9<	0.0
08/09/93	17.2<	0.0
08/10/93	14.7<	0.0
08/11/93	15.9<	0.0
08/12/93	17.9<	0.0
08/13/93	24.3<	0.0
08/14/93	16.7<	0.0
08/15/93	18.4<	0.0
08/16/93	18.1<	0.0
08/17/93	21.8<	0.0
08/18/93	24.7<	0.0
08/19/93	42.1<	0.0
08/20/93	25.5<	0.0<
08/21/93	24.0<	0.0
08/22/93	28.6<	0.0
08/23/93	25.1<	0.0
08/24/93	16.1<	0.0
08/25/93	20.4<	0.0
08/26/93	28.3<	0.0
08/27/93	32.5<	0.0
08/28/93	31.5<	0.0
08/29/93	30.8<	0.0
08/30/93	26.9<	0.0
08/31/93	29.6<	0.0<
Monthly Minimum 6-minute Values	0.0	0.0
Monthly Maximum	944.3	0.0
Monthly Minimum 1-day Values	14.3	0.0
Monthly Maximum	42.1	0.0
Monthly Average	22.5	0.0
Monthly Total	164522	0.0
Month Recovery	98.19	99.15

PEAK PROCESSING PERIOD

AUGUST 93

MONTHLY DATA SUMMARY

NAME: Unit #3 6 Min. Data LOCATION: PASCO, FL STATION ID: 7

CHAN NAME	OPs	SO2s	COs	CO2s	O2s	SO2sc		
CHAN UNITS	%	PPM	PPM	%	%	ppm		
FULL SCALE	100.0	200.0	500.0	20.0	25.0	200.0	1000	100.0
ZERO OFFSET	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
START / CHANNEL	01	02	03	04	05	06	07	08
08/01/93	2.3<	-0.4<	0.2<	-0.2<	21.1<	0.0<	0<	0.0<
08/02/93	2.5<	0.1<	0.3<	-0.2<	21.1<	0.0<	0<	0.0
08/03/93	2.5<	0.0<	0.4<	-0.3<	21.2<	0.0<	0<	0.0<
08/04/93	2.5<	-0.1<	0.1<	-0.3<	21.2<	0.0<	0<	0.0
08/05/93	2.5<	0.6<	0.2<	-0.3<	21.2<	12.0<	0<	0.0
08/06/93	2.0<	-0.2<	0.90	0.00	20.30	0.0<	0<	0.0
08/07/93	0.5<	0.2<	0.40	0.00	20.90	0.0<	0<	0.0
08/08/93	0.7<	0.0<	0.40	0.00	20.90	0.0<	0<	0.0
08/09/93	0.8<	0.2<	0.80	0.00	20.90	0.0<	0<	0.0<
08/10/93	0.8<	0.7<	0.60	0.00	19.10	0.0<	0<	0.0<
08/11/93	0.9<	0.1<	0.8<	0.0<	21.0<	0.0<	0<	0.0
08/12/93	1.2<	0.4<	0.7<	0.0<	20.9<	0.0<	0<	0.0
08/13/93	1.1<	0.2<	0.3<	-0.1<	21.0<	0.0<	0<	0.0
08/14/93	0.3<	14.1<	13.5<	5.9<	13.4<	19.7<	0<	0.0
08/15/93	-0.1<	27.5<	17.8<	8.9<	10.5<	37.0<	0<	0.0
08/16/93	-0.1<	25.9<	12.0<	9.1<	10.1<	33.6<	0<	0.0
08/17/93	0.0<	21.9<	16.8<	9.2<	10.2<	28.6<	0<	0.0
08/18/93	0.1<	23.9<	32.3<	8.9<	10.5<	32.1<	0<	0.0
08/19/93	0.1<	23.5<	21.1<	8.6<	10.8<	32.0<	0<	0.0<
08/20/93	0.3<	21.3<	68.9<	8.5<	11.1<	37.3<	0<	0.0
08/21/93	0.4<	19.2<	14.4<	9.2<	10.6<	25.9<	0<	0.0
08/22/93	0.4<	20.4<	19.4<	9.1<	10.7<	27.7<	0<	0.0
08/23/93	0.5<	18.6<	17.0<	9.1<	10.6<	24.5<	0<	0.0
08/24/93	0.5<	20.3<	11.6<	9.5<	10.2<	26.4<	0<	0.0
08/25/93	0.6<	14.3<	13.3<	9.4<	10.3<	19.3<	0<	0.0
08/26/93	0.7<	13.6<	15.5<	9.5<	10.3<	17.8<	0<	0.0
08/27/93	0.8<	15.0<	22.9<	9.2<	10.6<	19.9<	0<	0.0
08/28/93	0.7<	17.7<	23.0<	9.1<	10.5<	23.5<	0<	0.0
08/29/93	0.6<	17.2<	19.8<	9.4<	10.2<	22.2<	0<	0.0<
08/30/93	0.7<	16.9<	16.2<	9.4<	10.2<	21.9<	0<	0.0
08/31/93	0.6<	17.0<	25.3<	9.0<	10.4<	21.8<	0<	0.0<
Monthly Minimum 6-minute Values	-0.7	-3.2	0.0	-0.4	5.1	0.0	0	0.0
Monthly Maximum	25.1	204.7	495.0	13.0	21.3	316.3	0	0.0
Monthly Minimum 1-day Values	-0.1	-0.4	0.1	-0.3	10.1	0.0	0	0.0
Monthly Maximum	2.5	27.5	68.9	9.5	21.2	37.3	0	0.0
Monthly Average	0.9	11.7	15.3	6.4	13.5	15.8	0	0.0
Monthly Total	6475.7	82638	90497	37725	79933	114706	0	0.0
Month Recovery	98.24	94.93	79.35	79.35	79.35	97.78	97.78	99.07

PEAK PROCESSING PERIOD

AUGUST 93

MONTHLY DATA SUMMARY

NAME: Unit #3 6 Min. Data LOCATION: PASCO, FL STATION ID: 7

CHAN NAME	COsc	
CHAN UNITS	PPM	
FULL SCALE	1500.0	0.0
ZERO OFFSET	0.0	0.0
START / CHANNEL	09	10
08/01/93	0.0<	0.0B
08/02/93	0.0<	0.0B
08/03/93	0.0<	0.0B
08/04/93	0.0<	0.0B
08/05/93	0.3<	0.0B
08/06/93	0.0<	0.0B
08/07/93	0.0<	0.0B
08/08/93	0.0<	0.0B
08/09/93	0.0<	0.0B
08/10/93	0.0<	0.0B
08/11/93	0.0<	0.0B
08/12/93	0.0<	0.0B
08/13/93	3.8<	0.0B
08/14/93	23.1<	0.0B
08/15/93	23.7<	0.0B
08/16/93	15.1<	0.0B
08/17/93	21.6<	0.0B
08/18/93	35.9<	0.0B
08/19/93	34.0<	0.0B
08/20/93	52.8<	0.0B
08/21/93	19.2<	0.0B
08/22/93	26.4<	0.0B
08/23/93	23.3<	0.0B
08/24/93	15.1<	0.0B
08/25/93	17.2<	0.0B
08/26/93	20.1<	0.0B
08/27/93	31.3<	0.0B
08/28/93	31.0<	0.0B
08/29/93	26.9<	0.0B
08/30/93	20.5<	0.0B
08/31/93	34.7<	0.0B

PEAK PROCESSING PERIOD

Monthly Minimum 6-minute Values	0.0	Miss
Monthly Maximum	1248.8	Miss
Monthly Minimum 1-day Values	0.0	Miss
Monthly Maximum	52.8	Miss
Monthly Average	15.5	Miss
Monthly Total	112872	Miss
Month Recovery	97.78	0.00

AUGUST 1993
1-Hour Daily Averages
Unit Nos. 1, 2 and 3

Peak processing period was between August 20 to 26, 1993, when approximately 20% of the total solid waste stream consisted of oily debris.

AUGUST 93

MONTHLY DATA SUMMARY

NAME: Unit #1 1 Hr. Data LOCATION: PASCO, FL STATION ID: 2

CHAN NAME	SO2s	COs	CO2s	O2s	SO2sc.	COsc
CHAN UNITS	PPM	PPM	%	%	PPM	PPM
FULL SCALE	200.0	100.0	20.0	25.0	100.0	500.0
ZERO OFFSET	0.0	0.0	0.0	0.0	0.0	0.0
START / CHANNEL	01	02	03	04	05	06
08/01/93	16.9	17.3	9.5	10.1	21.6	21.9
08/02/93	15.9	14.6	9.6	10.1	20.5	18.4
08/03/93	22.3	13.7	9.6	10.2	28.8	17.9
08/04/93	23.1	14.0	10.2	9.8	29.2	17.5
08/05/93	18.4	17.2	10.5	9.4	22.2	20.5
08/06/93	15.5<	19.5<	10.1<	9.6<	18.4<	29.5<
08/07/93	15.9	14.2	10.1	9.6	19.3	17.0
08/08/93	20.5	14.1	10.1	9.6	25.4	17.0
08/09/93	18.2	16.2	10.2	9.6	22.2	19.5
08/10/93	20.0	11.9	10.2	9.5	24.2	14.2
08/11/93	24.1	14.4	10.1	9.7	29.4	17.6
08/12/93	22.0	14.0	10.3	9.5	27.8	16.6
08/13/93	23.0	16.1	10.1	9.6	28.4	19.5
08/14/93	29.0	12.4	10.1	9.5	35.2	14.7
08/15/93	30.5	16.1	10.2	9.5	37.1	19.3
08/16/93	23.4	14.6	9.6	9.9	29.9	18.7
08/17/93	6.7	37.6	3.3	17.2	10.8	43.0
08/18/93	30.7	19.0	9.7	9.8	38.2	24.7
08/19/93	22.7	25.7	9.6	10.0	28.8	32.7
08/20/93	21.2	22.3	9.8	9.8	26.4	29.6
08/21/93	16.6	15.5	9.7	10.0	21.1	19.3
08/22/93	19.7	32.3	9.4	10.3	25.8	52.4
08/23/93	13.1	17.1	9.3	10.3	17.2	22.3
08/24/93	1.1	21.4	1.1	19.7	3.3	7.9
08/25/93	0.0	0.3	-0.1	21.0	0.1	0.0
08/26/93	-0.2	0.3	-0.2	21.0	0.0	0.0
08/27/93	1.8	0.3	-0.1	21.0	0.6	0.5
08/28/93	2.8	0.1	-0.1	20.9	15.6	1.8
08/29/93	2.0	0.0	-0.1	20.9	33.0	0.1
08/30/93	0.2	0.0	-0.1	21.0	0.0	0.0
08/31/93	-0.1	0.0	0.0	21.0	0.0	0.0
Monthly Minimum 1-hour Values	-5.1	0.0	-0.2	8.8	0.0	0.0
Monthly Maximum	92.6	238.7	11.0	21.1	167.4	393.9
Monthly Minimum 1-day Values	-0.2	0.0	-0.2	9.4	0.0	0.0
Monthly Maximum	30.7	37.6	10.5	21.0	38.2	52.4
Monthly Average	15.4	13.9	7.1	12.9	20.6	17.2
Monthly Total	11303	10249	5264.6	9514.1	15232	12713
Month Recovery	98.92	99.19	99.19	99.19	99.19	99.19

PEAK PROCESSING PERIOD

UNIT OFFLINE

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AUGUST 93

MONTHLY DATA SUMMARY

NAME: Unit #2 1 Hr. Data LOCATION: PASCO, FL STATION ID: 5

CHAN NAME	SO2s	COs	CO2s	O2s	SO2sc	COsc
CHAN UNITS	PPM	PPM	%	%	PPM	PPM
FULL SCALE	200.0	100.0	20.0	25.0	100.0	500.0
ZERO OFFSET	0.0	0.0	0.0	0.0	0.0	0.0
START / CHANNEL	01	02	03	04	05	06
08/01/93	10.7	21.6	8.8	10.6	14.3	29.4
08/02/93	9.5	17.4	8.8	10.6	12.9	23.5
08/03/93	18.2	14.8	9.0	10.6	24.6	19.4
08/04/93	23.7	12.3	9.8	9.8	29.5	15.0
08/05/93	17.3	12.9	10.4	9.1	20.6	14.7
08/06/93	18.9<	13.0	10.2	9.3	23.2	15.1
08/07/93	17.8	12.2	10.1	9.4	21.4	14.3
08/08/93	20.9	12.7	10.2	9.4	25.2	14.9
08/09/93	16.5	14.4	10.1	9.5	20.2	17.2
08/10/93	15.3<	12.3<	10.0<	9.5<	18.5<	14.5<
08/11/93	15.1	13.2	9.9	9.7	18.9	15.9
08/12/93	13.0	14.3	10.0	9.6	15.9	17.9
08/13/93	14.6	19.6	9.8	9.8	18.4	24.3
08/14/93	6.3	13.9	9.9	9.7	7.8	16.6
08/15/93	25.1	14.7	9.8	9.9	31.6	18.3
08/16/93	8.8	14.5	9.6	9.9	11.0	18.1
08/17/93	22.0	17.5	9.8	9.8	27.6	21.7
08/18/93	20.5	89.6	8.4	11.4	39.5	24.7
08/19/93	20.1<	28.6<	8.9<	11.0<	26.0<	42.4<
08/20/93	18.0	19.1	9.6	10.1	23.1	25.8
08/21/93	14.7	36.6	9.1	10.8	19.7	24.0
08/22/93	16.4	20.5	9.3	10.5	22.0	28.6
08/23/93	15.7	17.7	9.1	10.6	21.1	25.1
08/24/93	19.2	12.6	9.4	10.3	25.2	16.1
08/25/93	13.9	15.5	9.2	10.5	18.6	20.4
08/26/93	5.7	19.7	9.2	10.7	8.5	28.3
08/27/93	6.9	23.2	8.9	10.9	9.7	32.4
08/28/93	11.5	23.6	9.1	10.5	15.1	31.5
08/29/93	10.5	23.1	9.2	10.4	13.8	30.8
08/30/93	12.1	19.7	9.0	10.6	16.0	26.9
08/31/93	13.1	22.0	9.1	10.4	17.1	29.5
Monthly Minimum 1-hour Values	-2.4	7.2	0.7	8.3	0.0	0.0
Monthly Maximum	74.6	495.8	11.2	20.2	157.8	255.9
Monthly Minimum 1-day Values	5.7	12.2	8.4	9.1	7.8	14.3
Monthly Maximum	25.1	89.6	10.4	11.4	39.5	42.4
Monthly Average	15.2	20.1	9.5	10.2	19.9	22.5
Monthly Total	10994	14815	6967.1	7478.5	14644	16568
Month Recovery	97.45	98.92	98.92	98.92	98.92	98.92

PEAK PROCESSING PERIOD

AUGUST 93

MONTHLY DATA SUMMARY

NAME: Unit #3 1 Hr. Data LOCATION: PASCO, FL STATION ID: 8

CHAN NAME	SO2s	COs	CO2s	O2s	SO2sc	COsc
CHAN UNITS	PPM	PPM	%	%	PPM	PPM
FULL SCALE	200.0	100.0	20.0	25.0	100.0	500.0
ZERO OFFSET	0.0	0.0	0.0	0.0	0.0	0.0
START / CHANNEL	01	02	03	04	05	06
08/01/93	-0.4	0.2	-0.2	21.1	0.0	0.0
08/02/93	0.1	0.3	-0.2	21.1	0.0	0.0
08/03/93	0.1	0.4	-0.3	21.2	0.0	0.0
08/04/93	-0.1	0.1	-0.3	21.2	0.0	0.0
08/05/93	0.6	0.1	-0.2	21.0	11.9	0.3
08/06/93	-0.1<	0.0<	0.0<	21.0<	0.0<	0.0<
08/07/93	0.2	0.0	0.0	21.0	0.0	0.0
08/08/93	0.0	0.0	0.0	21.0	0.0	0.0
08/09/93	0.2	0.4	0.0	21.0	0.0	0.0
08/10/93	0.7<	0.0<	-0.1<	21.0<	0.0<	0.0<
08/11/93	0.2<	0.6<	-0.1<	21.0<	0.0	0.0
08/12/93	0.5	0.7	0.0	20.9	0.0	0.0
08/13/93	0.3	0.3	-0.1	21.0	0.0	3.7
08/14/93	13.9	13.4	5.9	13.4	19.5	23.1
08/15/93	27.3	17.7	8.9	10.5	36.7	23.6
08/16/93	25.8	12.0	9.1	10.1	33.5	15.1
08/17/93	22.0	16.8	9.2	10.2	28.7	21.6
08/18/93	24.5	32.3	8.9	10.5	32.6	36.1
08/19/93	23.5	21.6	8.6	10.8	32.0	35.2
08/20/93	20.8	67.5	8.5	11.1	36.7	52.0
08/21/93	19.2	14.4	9.2	10.6	25.9	19.2
08/22/93	20.3	19.3	9.1	10.7	27.7	26.3
08/23/93	18.7	17.1	9.1	10.6	24.5	23.4
08/24/93	20.3	11.6	9.5	10.2	26.4	15.1
08/25/93	14.5	13.3	9.4	10.3	19.5	17.1
08/26/93	13.8	15.5	9.5	10.3	18.0	20.0
08/27/93	14.8	22.8	9.2	10.6	19.6	31.2
08/28/93	17.6	23.0	9.1	10.5	23.4	31.0
08/29/93	17.1	19.9	9.4	10.2	22.1	27.0
08/30/93	16.8	16.1	9.4	10.2	21.8	20.4
08/31/93	17.3	25.3	9.0	10.4	22.1	34.7
Monthly Minimum 1-hour Values	-3.1	0.0	-0.4	8.9	0.0	0.0
Monthly Maximum	79.6	486.1	10.6	21.3	184.4	363.2
Monthly Minimum 1-day Values	-0.4	0.0	-0.3	10.1	0.0	0.0
Monthly Maximum	27.3	67.5	9.5	21.2	36.7	52.0
Monthly Average	11.5	12.5	5.2	14.9	15.7	15.5
Monthly Total	8407.5	9184.5	3826.1	10960	11587	11426
Month Recovery	98.52	98.79	98.79	98.79	98.92	98.92

PEAK PROCESSING PERIOD

AUGUST 1993
Rolling Daily Permit Averages
Unit Nos. 1, 2 and 3

1-Hr CO - 400 ppm and 8-Hr CO - 100 ppm
3-Hr SO_2 - 104 ppm and 6-Hr SO_2 - 60 ppm

Peak processing period was between August 20 to 26, 1993, when approximately 20% of the total solid waste stream consisted of oily debris.

AUGUST 93

MONTHLY DATA SUMMARY

NAME: Unit #1 Rolling Avgs LOCATION: PASCO, FL STATION ID: 3

CHAN NAME	SO2sc	SO2sc	SO2sc		COsc	COsc
CHAN UNITS	1 Hr	3 Hr	6 Hr		1 Hr	8 Hr
FULL SCALE	100.0	100.0	100.0	0.0	500.0	500.0
ZERO OFFSET	0.0	0.0	0.0	0.0	0.0	0.0
START / CHANNEL	01	02	03	04	05	06
08/01/93	21.6	21.5	21.3	0.0	21.9	22.4
08/02/93	20.5	20.3	20.3	0.0	18.4	18.8
08/03/93	28.8	28.3	27.5	0.0	17.9	17.5
08/04/93	29.2	30.3	31.0	0.0	17.5	17.8
08/05/93	22.2	21.6	21.6	0.0	20.5	19.9
08/06/93	18.4<	19.6<	18.9	0.0	29.5<	30.7
08/07/93	19.3	19.2	19.0	0.0	17.0	17.9
08/08/93	25.4	24.8	24.7	0.0	17.0	16.6
08/09/93	22.2	22.1	22.4	0.0	19.5	19.0
08/10/93	24.2	23.7<	23.4<	0.0	14.2	15.1<
08/11/93	29.4	29.5	29.3	0.0	17.6	17.3
08/12/93	27.8	27.6	27.5	0.0	16.6	16.2
08/13/93	28.4	28.7	29.1	0.0	19.5	19.3
08/14/93	35.2	34.1	32.7	0.0	14.7	15.6
08/15/93	37.1	37.7	38.1	0.0	19.3	18.0
08/16/93	29.9	30.7	31.8	0.0	18.7	19.5
08/17/93	10.8	10.5	11.1	0.0	43.0	30.7
08/18/93	38.2	38.9	36.6	0.0	24.7	36.0
08/19/93	28.8	27.7	28.9	0.0	32.7	26.4
08/20/93	26.4	27.5	28.7	0.0	29.6	34.8
08/21/93	21.1	20.9	20.5	0.0	19.3	20.9
08/22/93	25.8	25.7	25.0	0.0	52.4	40.2
08/23/93	17.2	17.5	18.4	0.0	22.3	34.5
08/24/93	3.3	3.9	4.6	0.0	7.9	10.8
08/25/93	0.1	0.1	0.1	0.0	0.0	0.0
08/26/93	0.0	0.0	0.0	0.0	0.0	0.0
08/27/93	0.6	0.6	0.6	0.0	0.5	0.4
08/28/93	15.6	15.4	13.6	0.0	1.8	1.6
08/29/93	33.0	33.2	35.1	0.0	0.1	0.3
08/30/93	0.0	0.0	0.0	0.0	0.0	0.0
08/31/93	0.0	0.0	0.0	0.0	0.0	0.0
Monthly Minimum 1-hour Values	0.0	0.0	0.0	0.0	0.0	0.0
Monthly Maximum	167.4	110.3	73.7	0.0	393.9	111.4
Monthly Minimum 1-day Values	0.0	0.0	0.0	0.0	0.0	0.0
Monthly Maximum	38.2	38.9	38.1	0.0	52.4	40.2
Monthly Average	20.6	20.7	20.7	0.0	17.2	17.4
Monthly Total	15232	15122	15221	0.0	12713	12798
Month Recovery	99.19	98.39	98.92	100.00	99.19	98.92

PEAK PROCESSING PERIOD

UNIT OFFLINE

August 93

MONTHLY DATA SUMMARY

NAME: Unit #2 Rolling Avgs LOCATION: PASCO, FL STATION ID: 6

CHAN NAME	SO2sc	SO2sc	SO2sc		COsc	COsc
CHAN UNITS	1 Hr	3 Hr	6 Hr		1 Hr	8 Hr
FULL SCALE	100.0	100.0	100.0	0.0	500.0	500.0
ZERO OFFSET	0.0	0.0	0.0	0.0	0.0	0.0
START / CHANNEL	01	02	03	04	05	06
08/01/93	14.3	15.0	15.0	0.0	29.4	28.2
08/02/93	12.9	12.1	12.2	0.0	23.5	24.5
08/03/93	24.6	24.9	24.4	0.0	19.4	18.2
08/04/93	29.5	29.1	29.0	0.0	15.0	17.0
08/05/93	20.6	20.6	20.8	0.0	14.7	14.6
08/06/93	23.2	23.0	22.4	0.0	15.1	15.1
08/07/93	21.4	21.9	22.3	0.0	14.3	14.6
08/08/93	25.2	24.6	24.6	0.0	14.9	14.8
08/09/93	20.2	20.6	21.3	0.0	17.2	16.7
08/10/93	18.5<	17.6<	18.4<	0.0	14.5<	14.7<
08/11/93	18.9	18.5	17.8	0.0	15.9	16.0
08/12/93	15.9	16.3	17.1	0.0	17.9	16.8
08/13/93	18.4	17.8	17.2	0.0	24.3	24.4
08/14/93	7.8	7.9	8.1	0.0	16.6	17.0
08/15/93	31.6	29.4	28.0	0.0	18.3	17.8
08/16/93	11.0	13.1	13.8	0.0	18.1	19.1
08/17/93	27.6	27.3	27.0	0.0	21.7	20.7
08/18/93	39.5	39.8	39.7	0.0	24.7	22.8
08/19/93	26.0<	24.5<	24.5<	0.0	42.4<	32.7
08/20/93	23.1	24.2	25.9	0.0	25.8	36.1
08/21/93	19.7	19.4	18.4	0.0	24.0	23.7
08/22/93	22.0	21.6	21.5	0.0	28.6	27.2
08/23/93	21.1	21.5	22.3	0.0	25.1	26.6
08/24/93	25.2	25.0	24.2	0.0	16.1	17.3
08/25/93	18.6	19.0	19.5	0.0	20.4	19.9
08/26/93	8.5	9.1	10.0	0.0	28.3	27.0
08/27/93	9.7	9.0	8.4	0.0	32.4	30.0
08/28/93	15.1	14.9	14.8	0.0	31.5	32.4
08/29/93	13.8	14.4	14.6	0.0	30.8	32.6
08/30/93	16.0	15.3	14.7	0.0	26.9	27.0
08/31/93	17.1	17.6	17.9	0.0	29.5	28.4
Monthly Minimum 1-hour Values	0.0	0.0	0.1	0.0	0.0	10.8
Monthly Maximum	157.8	116.3	70.8	0.0	255.9	76.4
Monthly Minimum 1-day Values	7.8	7.9	8.1	0.0	14.3	14.6
Monthly Maximum	39.5	39.8	39.7	0.0	42.4	36.1
Monthly Average	19.9	19.8	19.8	0.0	22.5	22.5
Monthly Total	14644	14509	14488	0.0	16568	16521
Month Recovery	98.92	98.25	98.12	100.00	98.92	98.79

PEAK PROCESSING PERIOD

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AUGUST 93

MONTHLY DATA SUMMARY

NAME: Unit #3 Rolling Avgs LOCATION: PASCO, FL STATION ID: 9

CHAN NAME	SO2sc	SO2sc	SO2sc		COsc	COsc
CHAN UNITS	1 Hr	3 Hr	6 Hr		1 Hr	8 Hr
FULL SCALE	100.0	100.0	100.0	0.0	500.0	500.0
ZERO OFFSET	0.0	0.0	0.0	0.0	0.0	0.0
START / CHANNEL	01	02	03	04	05	06
08/01/93	0.0	0.0	0.0	0.0	0.0	0.0
08/02/93	0.0	0.0	0.0	0.0	0.0	0.0
08/03/93	0.0	0.0	0.0	0.0	0.0	0.0
08/04/93	0.0	0.0	0.0	0.0	0.0	0.0
08/05/93	11.9	11.9	11.9	0.0	0.3	0.3
08/06/93	0.0<	0.0<	0.0	0.0	0.0<	0.0
08/07/93	0.0	0.0	0.0	0.0	0.0	0.0
08/08/93	0.0	0.0	0.0	0.0	0.0	0.0
08/09/93	0.0	0.0	0.0	0.0	0.0	0.0
08/10/93	0.0<	0.0<	0.0<	0.0	0.0<	0.0<
08/11/93	0.0	0.0	0.0	0.0	0.0	0.0
08/12/93	0.0	0.0	0.0	0.0	0.0	0.0
08/13/93	0.0	0.0	0.0	0.0	3.7	2.5
08/14/93	19.5	17.9	16.3	0.0	23.1	21.1
08/15/93	36.7	36.3	35.2	0.0	23.6	23.5
08/16/93	33.5	34.6	35.2	0.0	15.1	16.3
08/17/93	28.7	28.8	29.5	0.0	21.6	21.1
08/18/93	32.6	32.1	30.9	0.0	36.1	35.9
08/19/93	32.0	32.2	33.0	0.0	35.2	22.1
08/20/93	36.7	37.3	38.3	0.0	52.0	65.2
08/21/93	25.9	25.3	24.7	0.0	19.2	18.7
08/22/93	27.7	28.0	26.6	0.0	26.3	25.5
08/23/93	24.5	24.7	25.9	0.0	23.4	24.2
08/24/93	26.4	26.3	26.0	0.0	15.1	16.3
08/25/93	19.5	20.4	22.2	0.0	17.1	16.5
08/26/93	18.0	17.9	17.8	0.0	20.0	18.8
08/27/93	19.6	18.3	16.4	0.0	31.2	29.6
08/28/93	23.4	23.2	23.5	0.0	31.0	30.4
08/29/93	22.1	22.1	22.4	0.0	27.0	30.3
08/30/93	21.8	21.9	22.0	0.0	20.4	20.1
08/31/93	22.1	23.2	23.8	0.0	34.7	29.2
Monthly Minimum 1-hour Values	0.0	0.0	0.0	0.0	0.0	0.0
Monthly Maximum	184.4	126.4	77.1	0.0	363.2	166.4
Monthly Minimum 1-day Values	0.0	0.0	0.0	0.0	0.0	0.0
Monthly Maximum	36.7	37.3	38.3	0.0	52.0	65.2
Monthly Average	15.7	15.8	15.8	0.0	15.5	15.3
Monthly Total	11587	11576	11559	0.0	11426	11223
Month Recovery	98.92	98.25	98.52	100.00	98.92	98.52

PEAK PROCESSING PERIOD

JULY 1993
6-Minute Daily Averages
Unit Nos. 1, 2 and 3

JULY 93

MONTHLY DATA SUMMARY

NAME: Unit #1 6 Min. Data LOCATION: PASCO, FL STATION ID: 1

CHAN NAME	OPs	SO2s	COs	CO2s	O2s	SO2sc		
CHAN UNITS	%	PPM	PPM	%	%	ppm		
FULL SCALE	100.0	200.0	500.0	20.0	25.0	200.0	1000	100.0
ZERO OFFSET	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
START / CHANNEL	01	02	03	04	05	06	07	08
07/01/93	3.1<	16.1<	19.8<	9.7<	9.9<	20.4<	0<	0.0
07/02/93	3.3<	16.0<	16.3<	9.6<	10.0<	20.6<	0<	0.0
07/03/93	3.5<	13.6<	15.9<	9.5<	10.2<	17.8<	0<	0.0
07/04/93	3.4<	13.4<	14.6<	9.4<	10.3<	17.4<	0<	0.0
07/05/93	3.4<	9.4<	13.3<	9.2<	10.6<	12.6<	0<	0.0
07/06/93	3.2<	9.5<	15.9<	9.0<	10.8<	13.0<	0<	0.0
07/07/93	3.2<	10.8<	21.7<	8.8<	11.0<	15.0<	0<	0.0
07/08/93	3.3<	13.4<	19.7<	8.8<	10.9<	18.7<	0<	0.0
07/09/93	2.9<	14.7<	16.1<	9.0<	10.8<	17.4<	0<	0.0
07/10/93	2.1<	15.0<	19.7<	9.1<	10.7<	21.8<	0<	0.0
07/11/93	2.9<	15.7<	18.0<	9.1<	10.7<	22.8<	0<	0.0<
07/12/93	2.0<	14.6<	12.7<	9.3<	10.4<	17.1<	0<	0.0
07/13/93	2.0<	15.4<	13.9<	9.3<	10.4<	22.0<	0<	0.0
07/14/93	1.9<	17.0<	16.3<	9.6<	10.1<	22.5<	0<	0.0
07/15/93	2.1<	24.7<	21.7<	9.6<	10.2<	32.0<	0<	0.0
07/16/93	2.0<	14.4<	19.6<	9.6<	10.1<	19.3<	0<	0.0
07/17/93	1.9<	21.4<	20.5<	9.7<	10.0<	27.6<	0<	0.0
07/18/93	1.8<	18.7<	20.5<	9.8<	10.0<	23.4<	0<	0.0
07/19/93	1.7<	14.5<	15.2<	9.7<	10.1<	18.9<	0<	0.0
07/20/93	1.8<	20.6<	11.9<	9.8<	9.9<	25.4<	0<	0.0<
07/21/93	1.7<	17.7<	12.4<	9.2<	10.4<	23.5<	0<	0.0
07/22/93	1.7<	21.5<	22.3<	9.3<	10.4<	28.6<	0<	0.0<
07/23/93	1.8<	15.8<	14.5<	9.2<	10.5<	21.2<	0<	0.0
07/24/93	1.8<	16.2<	14.2<	9.3<	10.4<	21.4<	0<	0.0
07/25/93	1.7<	15.8<	23.1<	9.3<	10.6<	21.3<	0<	0.0
07/26/93	1.8<	16.4<	17.2<	9.5<	10.4<	21.6<	0<	0.0
07/27/93	1.8<	20.3<	13.5<	9.8<	10.2<	26.4<	0<	0.0
07/28/93	1.7<	19.3<	12.7<	9.6<	10.5<	26.0<	0<	0.0
07/29/93	1.6<	18.8<	15.1<	9.5<	10.4<	24.9<	0<	0.0
07/30/93	1.6<	15.9<	13.4<	9.4<	10.4<	21.7<	0<	0.0
07/31/93	1.4<	8.5<	14.0<	9.5<	10.1<	11.0<	0<	0.0
Monthly Minimum 6-minute Values	0.3	-7.4	3.3	4.6	5.3	0.0	0	0.0
Monthly Maximum	7.0	204.7	493.8	14.3	15.8	270.0	0	0.0
Monthly Minimum 1-day Values	1.4	8.5	11.9	8.8	9.9	11.0	0	0.0
Monthly Maximum	3.5	24.7	23.1	9.8	11.0	32.0	0	0.0
Monthly Average	2.2	16.0	16.6	9.4	10.4	21.1	0	0.0
Monthly Total	16403	116862	122322	69041	76229	154918	0	0.0
Month Recovery	99.13	98.40	98.82	98.82	98.82	98.82	98.82	99.96

JULY 93

MONTHLY DATA SUMMARY

NAME: Unit #1 6 Min. Data LOCATION: PASCO, FL. STATION ID: 1

CHAN NAME	COsc	
CHAN UNITS	PPM	
FULL SCALE	1500.0	0.0
ZERO OFFSET	0.0	0.0
START / CHANNEL	09	10
07/01/93	25.4<	0.0B
07/02/93	20.3<	0.0B
07/03/93	20.6<	0.0B
07/04/93	18.8<	0.0B
07/05/93	17.7<	0.0B
07/06/93	21.7<	0.0B
07/07/93	31.1<	0.0B
07/08/93	30.7<	0.0B
07/09/93	21.9<	0.0B
07/10/93	26.7<	0.0B
07/11/93	24.5<	0.0B
07/12/93	16.6<	0.0B
07/13/93	18.7<	0.0B
07/14/93	20.7<	0.0B
07/15/93	29.3<	0.0B
07/16/93	25.0<	0.0B
07/17/93	26.2<	0.0B
07/18/93	27.3<	0.0B
07/19/93	19.1<	0.0B
07/20/93	14.7<	0.0B
07/21/93	16.3<	0.0B
07/22/93	32.4<	0.0B
07/23/93	19.1<	0.0B
07/24/93	18.7<	0.0B
07/25/93	30.9<	0.0B
07/26/93	22.5<	0.0B
07/27/93	17.1<	0.0B
07/28/93	18.9<	0.0B
07/29/93	20.5<	0.0B
07/30/93	17.2<	0.0B
07/31/93	17.7<	0.0B
Monthly Minimum 6-minute Values	3.8	Miss
Monthly Maximum	1173.8	Miss
Monthly Minimum 1-day Values	14.7	Miss
Monthly Maximum	32.4	Miss
Monthly Average	22.2	Miss
Monthly Total	163380	Miss
Month Recovery	98.82	0.00

JULY 93

MONTHLY DATA SUMMARY

NAME: Unit #2 6 Min. Data LOCATION: PASCO, FL STATION ID: 4

CHAN NAME	OPs	SO2	COs	CO2s	O2s	SO2sc		
CHAN UNITS	%	PPM	PPM	%	%	ppm		
FULL SCALE	100.0	200.0	500.0	20.0	25.0	200.0	1000	100.0
ZERO OFFSET	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
START / CHANNEL	01	02	03	04	05	06	07	08
07/01/93	0.3<	21.9<	11.4<	9.9<	9.9<	27.5<	0<	0.0
07/02/93	0.4<	19.1<	10.8<	9.8<	9.9<	24.3<	0<	0.0
07/03/93	0.3<	18.1<	10.2<	9.9<	9.8<	22.7<	0<	0.0
07/04/93	0.0<	21.3<	8.5<	9.9<	9.8<	26.5<	0<	0.0
07/05/93	0.1<	15.8<	8.5<	9.6<	10.1<	20.2<	0<	0.0
07/06/93	0.1<	18.7<	10.1<	9.4<	10.4<	24.7<	0<	0.0
07/07/93	0.3<	20.6<	21.3<	9.1<	10.7<	27.9<	0<	0.0
07/08/93	0.3<	22.5<	11.4<	9.3<	10.4<	30.2<	0<	0.0
07/09/93	0.2<	25.2<	9.9<	9.5<	10.2<	32.4<	0<	0.0
07/10/93	0.3<	25.7<	18.9<	9.4<	10.4<	33.8<	0<	0.0
07/11/93	0.4<	23.3<	13.7<	9.5<	10.2<	30.3<	0<	0.0<
07/12/93	0.5<	16.8<	9.0<	9.7<	9.9<	21.5<	0<	0.0
07/13/93	0.3<	21.8<	6.9<	9.9<	9.7<	26.8<	0<	0.0
07/14/93	0.4<	24.0<	17.2<	9.5<	10.1<	30.8<	0<	0.0
07/15/93	0.5<	22.8<	15.7<	9.3<	10.3<	30.6<	0<	0.0
07/16/93	0.5<	19.4<	19.0<	9.2<	10.3<	25.6<	0<	0.0
07/17/93	0.3<	22.6<	20.4<	9.4<	10.1<	29.0<	0<	0.0
07/18/93	0.2<	18.6<	22.5<	9.1<	10.4<	24.6<	0<	0.0
07/19/93	0.2<	14.9<	13.7<	9.4<	10.1<	19.3<	0<	0.0
07/20/93	0.1<	22.6<	9.8<	9.6<	9.9<	28.5<	0<	0.0
07/21/93	0.0<	15.1<	10.6<	9.1<	10.3<	19.8<	0<	0.0<
07/22/93	0.1<	18.4<	22.0<	8.8<	10.7<	25.7<	0<	0.0
07/23/93	0.2<	13.3<	10.0<	9.1<	10.4<	17.6<	0<	0.0
07/24/93	0.3<	13.5<	14.6<	9.1<	10.4<	17.9<	0<	0.0
07/25/93	0.3<	14.6<	25.4<	8.7<	10.8<	20.1<	0<	0.0
07/26/93	0.2<	11.3<	15.1<	8.9<	10.6<	15.2<	0<	0.0
07/27/93	0.2<	18.1<	13.0<	9.1<	10.4<	23.8<	0<	0.0
07/28/93	0.0<	19.3<	10.5<	9.0<	10.5<	25.7<	0<	0.0
07/29/93	0.0<	20.7<	11.9<	8.9<	10.6<	27.9<	0<	0.0
07/30/93	0.0<	18.3<	15.1<	8.8<	10.7<	24.8<	0<	0.0
07/31/93	0.1<	10.0<	14.9<	9.0<	10.4<	13.1<	0<	0.0
Monthly Minimum 6-minute Values	-1.4	-1.3	2.0	3.5	6.1	0.0	0	0.0
Monthly Maximum	1.1	204.7	495.8	13.4	17.1	271.5	0	0.0
Monthly Minimum 1-day Values	0.0	10.0	6.9	8.7	9.7	13.1	0	0.0
Monthly Maximum	0.5	25.7	25.4	9.9	10.8	33.8	0	0.0
Monthly Average	0.2	19.0	13.9	9.3	10.3	24.8	0	0.0
Monthly Total	1605.3	139112	102604	68578	75603	183269	0	0.0
Month Recovery	99.14	98.53	98.95	98.95	98.95	99.37	99.37	99.97

JULY 93

MONTHLY DATA SUMMARY

NAME: Unit #2 6 Min. Data LOCATION: PASCO, FL STATION ID: 4

CHAN NAME	COsc	
CHAN UNITS	PPM	
FULL SCALE	1500.0	0.0
ZERO OFFSET	0.0	0.0
START / CHANNEL	09	10
07/01/93	14.0<	0.0
07/02/93	13.6<	0.0
07/03/93	12.5<	0.0
07/04/93	10.2<	0.0
07/05/93	10.6<	0.0
07/06/93	13.1<	0.0
07/07/93	37.2<	0.0
07/08/93	15.1<	0.0
07/09/93	12.4<	0.0
07/10/93	27.6<	0.0
07/11/93	17.7<	0.0<
07/12/93	11.0<	0.0
07/13/93	8.2<	0.0
07/14/93	25.4<	0.0
07/15/93	20.9<	0.0
07/16/93	24.7<	0.0
07/17/93	26.2<	0.0
07/18/93	30.3<	0.0
07/19/93	17.9<	0.0
07/20/93	12.0<	0.0
07/21/93	13.5<	0.0<
07/22/93	39.7<	0.0
07/23/93	12.9<	0.0
07/24/93	19.3<	0.0
07/25/93	35.4<	0.0
07/26/93	20.2<	0.0
07/27/93	16.8<	0.0
07/28/93	13.6<	0.0
07/29/93	15.6<	0.0
07/30/93	20.4<	0.0
07/31/93	19.4<	0.0
Monthly Minimum 6-minute Values	1.5	0.0
Monthly Maximum	1466.3	0.0
Monthly Minimum 1-day Values	8.2	0.0
Monthly Maximum	39.7	0.0
Monthly Average	19.0	0.0
Monthly Total	140135	0.0
Month Recovery	99.37	99.97

JULY 93

MONTHLY DATA SUMMARY

NAME: Unit #3 6 Min. Data LOCATION: PASCO, FL STATION ID: 7

CHAN NAME	OPs	SO2s	COs	CO2s	O2s	SO2sc		
CHAN UNITS	%	PPM	PPM	%	%	ppm		
FULL SCALE	100.0	200.0	500.0	20.0	25.0	200.0	1000	100.0
ZERO OFFSET	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
START / CHANNEL	01	02	03	04	05	06	07	08
07/01/93	1.1<	17.9<	13.1<	9.2<	10.4<	23.7<	0<	0.0
07/02/93	1.2<	14.3<	11.5<	9.3<	10.4<	18.8<	0<	0.0
07/03/93	1.1<	12.7<	13.9<	9.3<	10.4<	16.8<	0<	0.0
07/04/93	1.1<	12.9<	15.7<	9.3<	10.4<	17.0<	0<	0.0
07/05/93	1.2<	10.4<	14.4<	9.1<	10.7<	14.2<	0<	0.0
07/06/93	1.2<	9.8<	16.8<	8.9<	10.9<	13.7<	0<	0.0
07/07/93	1.2<	16.2<	13.6<	9.1<	10.6<	21.8<	0<	0.0
07/08/93	1.3<	16.2<	14.1<	9.0<	10.7<	22.0<	0<	0.0
07/09/93	1.3<	17.2<	14.2<	8.9<	10.9<	23.7<	0<	0.0
07/10/93	1.4<	20.2<	31.5<	8.8<	11.0<	28.3<	0<	0.0<
07/11/93	1.4<	19.3<	24.3<	8.8<	11.0<	26.7<	0<	0.0
07/12/93	1.5<	17.1<	11.8<	9.1<	10.6<	23.2<	0<	0.0
07/13/93	1.5<	19.8<	12.0<	9.2<	10.6<	26.6<	0<	0.0
07/14/93	1.5<	24.6<	16.0<	9.2<	10.6<	33.2<	0<	0.0
07/15/93	1.4<	22.0<	22.6<	9.1<	10.7<	29.8<	0<	0.0
07/16/93	1.4<	19.8<	21.7<	9.2<	10.6<	26.6<	0<	0.0
07/17/93	1.3<	25.6<	22.2<	9.2<	10.4<	33.9<	0<	0.0
07/18/93	1.3<	21.0<	23.7<	9.0<	10.8<	28.7<	0<	0.0
07/19/93	1.3<	16.3<	15.6<	9.2<	10.5<	21.7<	0<	0.0
07/20/93	1.4<	25.1<	11.9<	9.3<	10.3<	32.8<	0<	0.0<
07/21/93	1.3<	19.2<	16.2<	9.3<	10.3<	25.4<	0<	0.0
07/22/93	1.4<	20.6<	14.8<	9.3<	10.4<	27.1<	0<	0.0
07/23/93	1.4<	16.4<	19.0<	9.1<	10.6<	21.8<	0<	0.0
07/24/93	1.4<	20.3<	13.3<	9.2<	10.5<	27.0<	0<	0.0
07/25/93	1.3<	21.0<	28.2<	8.9<	10.8<	28.8<	0<	0.0
07/26/93	1.4<	18.1<	15.3<	8.9<	10.8<	24.9<	0<	0.0
07/27/93	1.4<	16.4<	13.7<	9.0<	10.7<	22.3<	0<	0.0
07/28/93	1.5<	25.1<	10.9<	9.0<	10.7<	34.3<	0<	0.0
07/29/93	1.4<	23.8<	12.6<	9.0<	10.7<	32.2<	0<	0.0
07/30/93	1.5<	0.7<	18.0<	0.5<	20.4<	1.6<	0<	0.0
07/31/93	1.9<	-0.5<	0.7<	-0.1<	21.1<	0.0<	0<	0.0
Monthly Minimum 6-minute Values	0.4	-2.4	0.0	-0.1	7.3	0.0	0	0.0
Monthly Maximum	2.2	204.7	495.0	12.0	21.1	275.3	0	0.0
Monthly Minimum 1-day Values	1.1	-0.5	0.7	-0.1	10.3	0.0	0	0.0
Monthly Maximum	1.9	25.6	31.5	9.3	21.1	34.3	0	0.0
Monthly Average	1.4	17.4	16.2	8.5	11.3	23.5	0	0.0
Monthly Total	9977.2	127030	118298	62211	82164	172305	0	0.0
Month Recovery	99.14	98.02	98.02	98.02	98.02	98.44	98.44	99.97

JULY 93

MONTHLY DATA SUMMARY

NAME: Unit #3 6 Min. Data LOCATION: PASCO, FL STATION ID: 7

CHAN NAME	COsc	
CHAN UNITS	PPM	
FULL SCALE	1500.0	0.0
ZERO OFFSET	0.0	0.0
START / CHANNEL	09	10
07/01/93	16.9<	0.0B
07/02/93	14.8<	0.0B
07/03/93	18.1<	0.0B
07/04/93	20.6<	0.0B
07/05/93	19.2<	0.0B
07/06/93	23.8<	0.0B
07/07/93	18.2<	0.0B
07/08/93	18.9<	0.0B
07/09/93	19.5<	0.0B
07/10/93	47.1<	0.0B
07/11/93	38.2<	0.0B
07/12/93	15.7<	0.0B
07/13/93	16.8<	0.0B
07/14/93	21.3<	0.0B
07/15/93	31.7<	0.0B
07/16/93	29.9<	0.0B
07/17/93	30.4<	0.0B
07/18/93	33.0<	0.0B
07/19/93	20.9<	0.0B
07/20/93	15.5<	0.0B
07/21/93	23.1<	0.0B
07/22/93	21.5<	0.0B
07/23/93	28.6<	0.0B
07/24/93	17.5<	0.0B
07/25/93	39.1<	0.0B
07/26/93	21.2<	0.0B
07/27/93	18.4<	0.0B
07/28/93	14.6<	0.0B
07/29/93	17.0<	0.0B
07/30/93	8.4<	0.0B
07/31/93	0.0<	0.0B
Monthly Minimum 6-minute Values	0.0	Miss
Monthly Maximum	1173.8	Miss
Monthly Minimum 1-day Values	0.0	Miss
Monthly Maximum	47.1	Miss
Monthly Average	21.9	Miss
Monthly Total	160388	Miss
Month Recovery	98.44	0.00

JULY 1993
1-Hour Daily Averages
Unit Nos. 1, 2 and 3

JULY 93

MONTHLY DATA SUMMARY

NAME: Unit #1 1 Hr. Data LOCATION: PASCO, FL. STATION ID: 2

CHAN NAME	SO2s	COs	CO2s	O2s	SO2sc	COsc
CHAN UNITS	PPM	PPM	%	%	PPM	PPM
FULL SCALE	200.0	100.0	20.0	25.0	100.0	500.0
ZERO OFFSET	0.0	0.0	0.0	0.0	0.0	0.0
START / CHANNEL	01	02	03	04	05	06
07/01/93	16.0	19.9	9.7	9.9	20.4	25.5
07/02/93	15.9	16.3	9.6	10.0	20.5	20.4
07/03/93	13.5	16.0	9.5	10.2	17.8	20.6
07/04/93	13.4	14.6	9.4	10.3	17.4	18.8
07/05/93	9.4	13.3	9.2	10.6	12.6	17.6
07/06/93	9.6	15.9	9.0	10.8	13.1	21.7
07/07/93	10.8	21.8	8.8	11.0	15.0	31.3
07/08/93	13.4	19.7	8.8	10.9	18.6	30.7
07/09/93	12.9	16.2	9.0	10.8	17.6	22.0
07/10/93	16.0	19.7	9.1	10.7	21.7	26.8
07/11/93	16.8	18.2	9.1	10.7	22.6	24.9
07/12/93	13.0	12.7	9.3	10.4	17.1	16.6
07/13/93	16.5	13.9	9.3	10.4	22.1	18.8
07/14/93	17.5	16.3	9.6	10.1	22.4	20.8
07/15/93	24.6	21.7	9.6	10.2	31.9	29.4
07/16/93	14.8	19.7	9.6	10.1	19.9	25.0
07/17/93	21.5	20.7	9.7	10.0	27.7	26.4
07/18/93	18.6	20.5	9.8	10.0	23.4	27.3
07/19/93	14.5	15.2	9.7	10.1	18.9	19.2
07/20/93	19.9	11.9	9.8	9.9	25.3	14.6
07/21/93	17.6	12.6	9.2	10.5	23.5	16.6
07/22/93	21.5	22.1	9.3	10.4	28.6	32.2
07/23/93	15.9	14.5	9.2	10.5	21.3	19.1
07/24/93	16.2	14.2	9.3	10.4	21.4	18.7
07/25/93	15.6	23.0	9.3	10.6	21.2	30.8
07/26/93	16.3	17.2	9.5	10.4	21.5	22.5
07/27/93	20.2	13.5	9.8	10.2	26.3	17.1
07/28/93	19.4	12.6	9.6	10.5	26.1	18.8
07/29/93	18.8	15.1	9.5	10.4	24.9	20.5
07/30/93	16.0	13.3	9.3	10.5	22.1	17.4
07/31/93	8.5	14.0	9.5	10.1	10.9	17.8
Monthly Minimum 1-hour Values	-2.3	4.6	5.7	8.4	0.0	5.6
Monthly Maximum	98.0	175.4	11.3	14.6	129.0	299.9
Monthly Minimum 1-day Values	8.5	11.9	8.8	9.9	10.9	14.6
Monthly Maximum	24.6	23.0	9.8	11.0	31.9	32.2
Monthly Average	16.0	16.7	9.4	10.4	21.1	22.3
Monthly Total	11873	12390	6983.5	7717.4	15694	16556
Month Recovery	100.00	100.00	100.00	100.00	100.00	100.00

JULY 93

MONTHLY DATA SUMMARY

NAME: Unit #2 1 Hr. Data LOCATION: PASCO, FL. STATION ID: 5

CHAN NAME	SO2s	COs	CO2s	O2s	SO2sc	COsc
CHAN UNITS	PPM	PPM	%	%	PPM	PPM
FULL SCALE	200.0	100.0	20.0	25.0	100.0	500.0
ZERO OFFSET	0.0	0.0	0.0	0.0	0.0	0.0
START / CHANNEL	01	02	03	04	05	06
07/01/93	21.8	11.4	9.8	9.9	27.4	14.0
07/02/93	19.4	10.8	9.8	9.9	24.6	13.5
07/03/93	18.1	10.2	9.9	9.8	22.7	12.5
07/04/93	21.2	8.5	9.9	9.8	26.5	10.2
07/05/93	15.8	8.5	9.6	10.1	20.2	10.6
07/06/93	18.7	10.1	9.4	10.4	24.7	13.1
07/07/93	20.7	21.2	9.1	10.7	28.0	37.0
07/08/93	22.5	11.4	9.3	10.4	30.2	15.1
07/09/93	25.1	9.9	9.5	10.2	32.4	12.4
07/10/93	25.6	18.8	9.4	10.4	33.8	27.5
07/11/93	23.3	13.8	9.5	10.2	30.4	17.8
07/12/93	16.9	9.1	9.7	9.9	21.5	11.1
07/13/93	21.8	6.9	9.9	9.7	26.8	8.2
07/14/93	24.1	17.2	9.5	10.1	30.8	25.4
07/15/93	22.7	15.7	9.3	10.3	30.6	20.9
07/16/93	19.5	18.9	9.2	10.3	25.5	24.7
07/17/93	22.7	20.5	9.4	10.1	29.0	26.2
07/18/93	18.5	22.5	9.1	10.4	24.6	30.3
07/19/93	15.0	13.7	9.4	10.1	19.3	17.9
07/20/93	22.6	9.8	9.6	9.9	28.5	12.0
07/21/93	15.0	10.6	9.1	10.3	19.7	13.5
07/22/93	18.4	21.9	8.9	10.7	25.7	39.6
07/23/93	13.3	10.0	9.1	10.4	17.5	12.9
07/24/93	13.6	14.5	9.1	10.4	17.9	19.3
07/25/93	14.6	25.3	8.8	10.8	20.1	35.4
07/26/93	11.3	15.0	8.9	10.6	15.2	20.1
07/27/93	18.1	13.0	9.1	10.4	23.8	16.8
07/28/93	19.2	10.5	9.0	10.5	25.6	13.6
07/29/93	20.6	11.8	8.9	10.6	27.9	15.6
07/30/93	18.4	15.2	8.8	10.7	24.9	20.5
07/31/93	9.9	15.0	9.0	10.4	13.0	19.5
Monthly Minimum 1-hour Values	-0.6	3.3	6.8	8.6	0.0	3.5
Monthly Maximum	79.2	152.8	10.8	13.0	102.8	315.4
Monthly Minimum 1-day Values	9.9	6.9	8.8	9.7	13.0	8.2
Monthly Maximum	25.6	25.3	9.9	10.8	33.8	39.6
Monthly Average	19.0	13.9	9.3	10.3	24.8	18.9
Monthly Total	14122	10358	6930.4	7640.1	18453	14089
Month Recovery	100.00	100.00	100.00	100.00	100.00	100.00

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JULY 93

MONTHLY DATA SUMMARY

NAME: Unit #3 1 Hr. Data LOCATION: PASCO, FL STATION ID: 8

CHAN NAME	SO2s	COs	CO2s	O2s	SO2sc	COsc
CHAN UNITS	PPM	PPM	%	%	PPM	PPM
FULL SCALE	200.0	100.0	20.0	25.0	100.0	500.0
ZERO OFFSET	0.0	0.0	0.0	0.0	0.0	0.0
START / CHANNEL	01	02	03	04	05	06
07/01/93	18.0	13.1	9.2	10.4	23.7	16.9
07/02/93	14.3	11.5	9.3	10.4	18.9	14.8
07/03/93	12.6	14.0	9.3	10.4	16.8	18.2
07/04/93	13.0	15.8	9.3	10.4	17.1	20.7
07/05/93	10.5	14.4	9.1	10.7	14.4	19.3
07/06/93	9.9	16.8	8.9	10.9	13.8	23.8
07/07/93	16.1	13.8	9.1	10.6	21.8	18.3
07/08/93	16.1	14.1	9.0	10.7	22.0	18.9
07/09/93	17.2	14.3	8.9	10.9	23.7	19.5
07/10/93	20.1	31.4	8.8	11.0	28.2	46.9
07/11/93	19.3	24.3	8.9	10.9	26.7	38.1
07/12/93	17.2	11.8	9.1	10.6	23.2	15.7
07/13/93	19.7	12.2	9.1	10.6	26.6	17.0
07/14/93	24.7	15.9	9.2	10.6	33.2	21.2
07/15/93	22.0	22.5	9.1	10.7	29.7	31.5
07/16/93	19.9	21.7	9.2	10.6	26.7	29.9
07/17/93	25.9	22.2	9.2	10.4	34.1	30.4
07/18/93	21.0	23.7	9.0	10.8	28.8	33.0
07/19/93	16.4	15.6	9.2	10.5	21.8	20.9
07/20/93	25.1	11.9	9.4	10.3	32.9	15.5
07/21/93	19.2	16.1	9.3	10.3	25.4	23.0
07/22/93	20.7	14.7	9.3	10.4	27.2	21.4
07/23/93	16.3<	18.9<	9.1<	10.6<	21.8<	28.5<
07/24/93	20.2	13.2	9.2	10.4	27.0	17.4
07/25/93	21.0	28.1	8.9	10.8	28.8	38.9
07/26/93	18.2	15.2	8.9	10.8	24.9	21.1
07/27/93	16.3	13.7	9.0	10.7	22.2	18.5
07/28/93	25.0	10.9	9.0	10.7	34.2	14.6
07/29/93	23.9	12.6	9.0	10.7	32.3	17.0
07/30/93	0.7	17.6	0.5	20.5	1.6	8.3
07/31/93	-0.5	0.7	-0.1	21.1	0.0	0.0
Monthly Minimum 1-hour Values	-1.9	0.1	-0.1	9.2	0.0	0.0
Monthly Maximum	101.1	271.9	10.4	21.1	136.4	282.6
Monthly Minimum 1-day Values	-0.5	0.7	-0.1	10.3	0.0	0.0
Monthly Maximum	25.9	31.4	9.4	21.1	34.2	46.9
Monthly Average	17.4	16.2	8.5	11.3	23.5	21.9
Monthly Total	12902	11992	6308.9	8340.6	17417	16190
Month Recovery	99.46	99.46	99.46	99.46	99.46	99.46

JULY 1993
Rolling Daily Permit Averages
Unit Nos. 1, 2 and 3

1-Hr CO - 400 ppm and 8-Hr CO - 100 ppm
3-Hr SO_2 - 104 ppm and 6-Hr SO_2 - 60 ppm

JULY 93

MONTHLY DATA SUMMARY

NAME: Unit #1 Rolling Avgs LOCATION: PASCO, FL STATION ID: 3

CHAN NAME	SO2sc	SO2sc	SO2sc		COsc	COsc
CHAN UNITS	1 Hr	3 Hr	6 Hr		1 Hr	8 Hr
FULL SCALE	100.0	100.0	100.0	0.0	500.0	500.0
ZERO OFFSET	0.0	0.0	0.0	0.0	0.0	0.0
START / CHANNEL	01	02	03	04	05	06
07/01/93	20.4	19.4	18.6	0.0	25.5	26.9
07/02/93	20.5	21.2	21.4	0.0	20.4	20.5
07/03/93	17.8	17.6	17.9	0.0	20.6	21.1
07/04/93	17.4	17.5	17.6	0.0	18.8	19.5
07/05/93	12.6	13.0	13.4	0.0	17.6	16.3
07/06/93	13.1	13.1	12.9	0.0	21.7	22.1
07/07/93	15.0	14.2	13.1	0.0	31.3	31.3
07/08/93	18.6	19.1	19.3	0.0	30.7	24.4
07/09/93	17.6	17.6	17.8	0.0	22.0	28.5
07/10/93	21.7	21.2	20.6	0.0	26.8	25.5
07/11/93	22.6	22.7	22.8	0.0	24.9	25.9
07/12/93	17.1	17.4	17.7	0.0	16.6	18.0
07/13/93	22.1	22.5	22.9	0.0	18.8	17.1
07/14/93	22.4	20.8	19.6	0.0	20.8	20.8
07/15/93	31.9	33.1	32.6	0.0	29.4	23.6
07/16/93	19.9	19.9	21.0	0.0	25.0	30.0
07/17/93	27.7	26.7	25.6	0.0	26.4	26.6
07/18/93	23.4	24.8	26.7	0.0	27.3	27.6
07/19/93	18.9	17.8	16.5	0.0	19.2	19.0
07/20/93	25.3	25.4	25.4	0.0	14.6	16.3
07/21/93	23.5	23.7	23.9	0.0	16.6	16.7
07/22/93	28.6	28.7	28.9	0.0	32.2	31.8
07/23/93	21.3	21.4	21.6	0.0	19.1	18.7
07/24/93	21.4	21.9	22.1	0.0	18.7	17.8
07/25/93	21.2	20.8	20.3	0.0	30.8	31.1
07/26/93	21.5	21.4	21.5	0.0	22.5	22.7
07/27/93	26.3	26.0	25.2	0.0	17.1	18.5
07/28/93	26.1	26.2	26.3	0.0	18.8	18.2
07/29/93	24.9	25.1	26.1	0.0	20.5	20.7
07/30/93	22.1	22.5	22.6	0.0	17.4	16.9
07/31/93	10.9	10.7	10.5	0.0	17.8	16.9
Monthly Minimum 1-hour Values	0.0	3.0	3.9	0.0	5.6	9.6
Monthly Maximum	129.0	64.9	45.2	0.0	299.9	65.6
Monthly Minimum 1-day Values	10.9	10.7	10.5	0.0	14.6	16.3
Monthly Maximum	31.9	33.1	32.6	0.0	32.2	31.8
Monthly Average	21.1	21.1	21.1	0.0	22.3	22.3
Monthly Total	15694	15679	15665	0.0	16556	16579
Month Recovery	100.00	100.00	100.00	100.00	100.00	100.00

JULY 93

MONTHLY DATA SUMMARY

NAME: Unit #2 Rolling Avgs LOCATION: PASCO, FL STATION ID: 6

CHAN NAME	SO2sc	SO2sc	SO2sc		COsc	COsc
CHAN UNITS	1 Hr	3 Hr	6 Hr		1 Hr	8 Hr
FULL SCALE	100.0	100.0	100.0	0.0	500.0	500.0
ZERO OFFSET	0.0	0.0	0.0	0.0	0.0	0.0
START / CHANNEL	01	02	03	04	05	06
07/01/93	27.4	27.3	27.4	0.0	14.0	13.7
07/02/93	24.6	25.0	25.2	0.0	13.5	13.8
07/03/93	22.7	22.5	22.8	0.0	12.5	13.0
07/04/93	26.5	26.4	25.7	0.0	10.2	10.8
07/05/93	20.2	20.5	21.1	0.0	10.6	9.8
07/06/93	24.7	24.5	24.2	0.0	13.1	12.4
07/07/93	28.0	27.6	27.1	0.0	37.0	36.8
07/08/93	30.2	30.4	30.4	0.0	15.1	15.9
07/09/93	32.4	31.5	30.8	0.0	12.4	12.3
07/10/93	33.8	34.7	35.4	0.0	27.5	20.7
07/11/93	30.4	30.6	31.2	0.0	17.8	24.6
07/12/93	21.5	22.0	22.1	0.0	11.1	12.2
07/13/93	26.8	26.4	25.7	0.0	8.2	7.1
07/14/93	30.8	30.1	30.0	0.0	25.4	24.5
07/15/93	30.6	30.5	30.1	0.0	20.9	20.1
07/16/93	25.5	25.8	26.7	0.0	24.7	24.8
07/17/93	29.0	29.1	28.8	0.0	26.2	25.7
07/18/93	24.6	25.0	25.4	0.0	30.3	30.4
07/19/93	19.3	19.2	19.2	0.0	17.9	18.8
07/20/93	28.5	27.9	27.4	0.0	12.0	13.3
07/21/93	19.7	20.2	20.9	0.0	13.5	13.4
07/22/93	25.7	26.1	26.3	0.0	39.6	39.7
07/23/93	17.5	17.3	17.8	0.0	12.9	12.6
07/24/93	17.9	18.5	18.8	0.0	19.3	16.2
07/25/93	20.1	19.2	17.6	0.0	35.4	35.8
07/26/93	15.2	15.6	16.5	0.0	20.1	21.8
07/27/93	23.8	23.6	22.9	0.0	16.8	17.8
07/28/93	25.6	25.5	25.6	0.0	13.6	13.4
07/29/93	27.9	28.3	28.5	0.0	15.6	15.8
07/30/93	24.9	25.2	26.3	0.0	20.5	18.9
07/31/93	13.0	12.6	12.2	0.0	19.5	20.4
Monthly Minimum 1-hour Values	0.0	0.1	4.0	0.0	3.5	5.8
Monthly Maximum	102.8	92.1	57.6	0.0	315.4	94.9
Monthly Minimum 1-day Values	13.0	12.6	12.2	0.0	8.2	7.1
Monthly Maximum	33.8	34.7	35.4	0.0	39.6	39.7
Monthly Average	24.8	24.8	24.8	0.0	18.9	18.9
Monthly Total	18453	18460	18478	0.0	14089	14073
Month Recovery	100.00	100.00	100.00	100.00	100.00	100.00

July 93

MONTHLY DATA SUMMARY

NAME: Unit #3 Rolling Avgs LOCATION: OSCO, FL STATION ID: 9

CHAN NAME	SO2sc	SO2sc	SO2sc		COsc	COsc
CHAN UNITS	1 Hr	3 Hr	6 Hr		1 Hr	8 Hr
FULL SCALE	100.0	100.0	100.0	0.0	500.0	500.0
ZERO OFFSET	0.0	0.0	0.0	0.0	0.0	0.0
START / CHANNEL	01	02	03	04	05	06
07/01/93	23.7	23.3	23.0	0.0	16.9	17.1
07/02/93	18.9	19.6	20.1	0.0	14.8	14.6
07/03/93	16.8	16.6	17.2	0.0	18.2	18.0
07/04/93	17.1	16.8	16.3	0.0	20.7	21.3
07/05/93	14.4	15.0	15.5	0.0	19.3	18.6
07/06/93	13.8	13.8	13.8	0.0	23.8	23.3
07/07/93	21.8	21.0	20.0	0.0	18.3	19.8
07/08/93	22.0	22.2	22.5	0.0	18.9	17.7
07/09/93	23.7	23.6	23.3	0.0	19.5	19.8
07/10/93	28.2	27.9	27.7	0.0	46.9	40.6
07/11/93	26.7	26.8	27.1	0.0	38.1	43.5
07/12/93	23.2	23.3	23.2	0.0	15.7	17.6
07/13/93	26.6	26.0	25.2	0.0	17.0	16.0
07/14/93	33.2	33.7	35.0	0.0	21.2	20.7
07/15/93	29.7	29.6	28.7	0.0	31.5	25.4
07/16/93	26.7	25.9	25.8	0.0	29.9	34.1
07/17/93	34.1	34.3	34.3	0.0	30.4	31.6
07/18/93	28.8	29.7	30.1	0.0	33.0	31.5
07/19/93	21.8	21.5	21.4	0.0	20.9	23.3
07/20/93	32.9	32.4	32.2	0.0	15.5	16.2
07/21/93	25.4	25.8	26.2	0.0	23.0	18.7
07/22/93	27.2	27.4	27.5	0.0	21.4	25.7
07/23/93	21.8<	21.4<	21.5<	0.0	28.5<	24.0<
07/24/93	27.0	27.2	27.4	0.0	17.4	16.7
07/25/93	28.8	28.5	27.6	0.0	38.9	34.9
07/26/93	24.9	25.3	25.7	0.0	21.1	25.4
07/27/93	22.2	22.1	22.6	0.0	18.5	18.9
07/28/93	34.2	33.7	32.8	0.0	14.6	14.9
07/29/93	32.3	32.6	33.1	0.0	17.0	17.3
07/30/93	1.6	2.8	4.5	0.0	8.3	10.1
07/31/93	0.0	0.0	0.0	0.0	0.0	0.0
Monthly Minimum 1-hour Values	0.0	0.0	0.0	0.0	0.0	0.0
Monthly Maximum	136.4	92.4	58.5	0.0	282.6	62.4
Monthly Minimum 1-day Values	0.0	0.0	0.0	0.0	0.0	0.0
Monthly Maximum	34.2	34.3	35.0	0.0	46.9	43.5
Monthly Average	23.5	23.6	23.6	0.0	21.9	21.8
Monthly Total	17417	17391	17407	0.0	16190	16086
Month Recovery	99.46	99.19	99.06	100.00	99.46	99.06