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ENERGY

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BUREAU OF AIR REGULATION

April 4, 2001

Mr. Clair H. Fancy, P.E.
Deputy Chief, Bureau of Air Management
Department of Environmental Protection
111 South Magnolia Drive, Suite 4
Tallahassee, Florida 32301

Dear Mr. Fancy: Project No: 0690046-003-AC

Pursuant to discussions with Florida Department of Environmental Protection ("DEP" or "Department") staff, this application is being submitted to amend and replace Prevention of Significant Deterioration (PSD) Permit No. AC 35-115379 (PSD-FL-113) for Ogden Martin Systems of Lake, Inc. ("OMSL").

This application is being submitted to make the PSD permit representative of existing regulations and to reflect the cessation of biomedical waste processing by September 1, 2001. The cessation of biomedical waste processing will enable a situation where Unit 1 and Unit 2 will now have identical permit conditions. The application also proposes certain clarifications to make the permit conditions consistent with the most current regulatory requirements. The proposed changes and clarifications to the PSD permit will not cause an increase in air emissions, therefore the application is limited to minor modifications.

I would also like to inform the Department that as of March 14, 2001, Ogden Corporation, Inc. has changed its name to Covanta Energy Corporation, Inc. On that same date, the name of the corporation that owns and operates the Lake County Resource Recovery Facility was changed from "NRG/Recovery Group, Inc." to "Covanta Lake, Inc." This is a name change only: there has been no change in ownership or operation. We are thus requesting that the PSD and Title V permits be issued to "Covanta Lake, Inc." instead of "NRG/Recovery Group, Inc." or "Ogden Martin Systems of Lake, Inc."

We are available to meet to discuss this application at your earliest convenience. In the meantime, please feel free to call me direct at 973-882-7236.

Sincerely,

Brian Bahor

Brian Bahor, QEP
Vice President, Environmental Permitting

Distribution
Cecil Boatwright Joe Treshler Viet Ta

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Application to Amend
Construction Permit No. PSD-FL-113
For Ogden Martin Systems of Lake, Inc.

April 4, 2001

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Appendices

Application to Amend
Construction Permit No. PSD-FL-113
For Ogden Martin Systems of Lake, Inc.

1.0 Purpose and Objective

Pursuant to discussions with Florida Department of Environmental Protection ("Department") staff, this application is being submitted to amend and replace Prevention of Significant Deterioration (PSD) Permit No. AC 35-115379 (PSD-FL-113) for Ogden Martin Systems of Lake, Inc. ("OMSL"). OMSL understands that the Department will amend the DRAFT Title V Permit to represent the amended permit conditions created by this application.

There are three objectives of this permit application including;

1 – Remove permit conditions that enable the processing of biomedical waste
2 - Amend certain conditions that apply when Unit 1 or Unit 2 is processing MSW.
3 - Assure that both Unit 1 and 2 are subject to the same conditions when processing municipal solid waste ("MSW").

OMSL would also like to point out that written comments on DRAFT Title V Permit No. 0690046-001-AV were also submitted to the Department and that these comments need to be addressed before a new DRAFT Title V Permit can be issued.

Each permit condition that is discussed herein is approached in a three step process. Step 1 is to identify the applicable permit condition that is being proposed for modification or clarification. Step 2 is an analysis of the permit condition(s) and Step 3 is the new permit condition proposed by OMSL.

2.0 Biomedical Waste Conditions

2.1 Project Description – Conveyors

2.1.1 Step 1 - Reference Permit Conditions

The primary mechanism for transferring MSW to the hopper of each MWC is the grapple system that includes two independent grapples, each of which is controlled by operating personnel in the crane pulpit. In addition to the grapple system, a small conveyor is available for transporting packaged MSW from the tipping floor to the deck by Unit 2 or directly into Unit 2's hopper.

In regards to biomedical waste, the existing Project Description of AC 35-115379 (PSD-FL-113) refers to an inclined conveyor that has since been constructed at OMSL. Operating permit AO35-193817 provided approval to construct a different conveyor (a bucket conveyor) for the purpose of transporting biomedical waste to the charging hopper of either Unit 1 or Unit 2.

2.1.2 Step 2 - Analysis

There are four different conveyors at OMSL that can be used for transporting MSW to the MWC's, a grapple conveyor, an inclined conveyor, a bucket conveyor and a package conveyor. The grapple conveyor and inclined conveyor were implemented through the construction permit with the grapple conveyor being described in the original PSD application and the inclined conveyor being described through an amendment to the construction permit. The bucket conveyor was implemented through the operating permit. This amendment is to provide formal notification that OMSL proposes that all four conveying systems can transport MSW to the MWCs and to confirm that each conveyor has been implemented through the appropriate permitting procedures.

Correspondence for the grapple and inclined conveyor systems is not provided herein because they have both gone through the construction permit process. Prior correspondence between OMSL and the Department regarding the bucket conveyor system is provided as Appendix A of this application. OMSL believes that the Department has already completed the necessary review for this piece of equipment and that the only step necessary to enable inclusion of the bucket conveyor in the PSD permit is the public comment period.

The package conveyor is a simple vertical lift mechanism that is simply an alternative method of moving packaged waste from the tipping floor to the charging hopper level. Prior guidance from the Department stated that a conveyor is not considered a source of air pollutant emissions if waste is containerized and that a permit is therefore not required for such. This conveyor is only for waste that is packaged, therefore OMSL understood that a permit was not necessary for this type of equipment. OMSL is identifying this piece of equipment in this application to assure that it is identified in the final PSD permit.

2.1.3 Step 3 - Proposed Permit Condition

The Project Description should be revised to include four methods of conveying MSW to a MWC; 1) the grapple system to Unit 1 or 2; 2) the inclined conveyor to Unit 1; 3) the bucket conveyor to Unit 1 or 2; and 4) the package conveyor to Unit 2.

2.2 Removal of the Biomedical Waste Process Conditions

2.2.1 Step 1- Reference Permit Conditions

The Air Construction Permit Amendment dated December 10, 1990.
Specific Conditions of AO35-193817

2.2.2 Step 2 - Analysis

The Air Construction Permit Amendment dated December 10, 1990 is the specific regulatory basis for the processing of biomedical waste at OMSL. The conditions that should be deleted from AC 35-115379 (PSD-FL-113) are 1.c, 1.g, 1.i, 1.j, 3.a, 3.d and 3.k. Condition 1.e should be modified to remove the term biohazardous waste. Naturally, any Title V conditions that are based on the permit requirements should also be deleted in their entirety.

Specific Condition 6.a, 6.b, 6.c, 6.d and 6.e of operating permit AO35-193817 establishes the operating permit conditions that are to be met by Unit 1 of OMSL. OMSL proposes that these conditions should be deleted in their entirety with an effective termination date of September 1, 2001 and that these conditions need to be replaced with a condition that represents the combustion of MSW. The table below identifies the existing conditions that require new language for the MSW operating condition.

Existing Condition (1)			MSW Only Condition (1)
Item	Parameter	Permit Limit	Subpart Cb Limit
6.a	Particulate	0.020 gr/dscf at 7 % O2	0.012 gr/dscf at 7 % O2
6.b	HCl	50 ppmdc or reduced by 90 %	29 ppmdc or reduced by 95 %
6.c.3	CO	100 ppmdc at 7 % O2 on an hourly basis	100 ppmdc at 7 % O2 as a 4 hour block average

(1) gr/dscf = grains per dry standard cubic foot at standard conditions
ppmdc = parts per million, dry gas basis

A May 25, 1993 Change of Condition to Specific Condition 1.a of Operating Permit AO35-193817 establishes the current not to exceed biomedical waste throughput limit for Unit 1 of 2.15

tons/hour and 51.60 tons/day. This condition should also be deleted in its entirety but with an effective termination date of September 1, 2001.

2.2.3 Step 3 - Proposed Permit Condition
OMSL is not proposing a condition that would enable the processing of biomedical waste.

A permit note or clarification should be included in the PSD permit and Title V permit that enables processing of biomedical waste within the conditions of the existing construction and operating permit until September 1, 2001.

3.0 Specific MSW Permit Conditions
3.1 Overview
While this application is being submitted to amend the cited PSD permit, many of the cited conditions are from DRAFT Title V Permit No. 0690046-001-AV issued to OMSL. This approach is taken to assure that a change to the PSD permit creates a commensurate change in the DRAFT Title V Permit. There are also several situations where a DRAFT Title V Permit condition exists but there is no referenced PSD permit condition in AC 35-115379 (PSD-FL-113).

3.2 Testing of Mercury
3.2.1 Step 1 - Reference Permit Conditions
Specific Conditions of Permit Number AC 35-115379
8.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.

DRAFT Title V Permit Conditions
B.109 Periodic Monitoring – Mercury. For purposes of periodic monitoring for mercury:
a. Quarterly testing shall be required using EPA method 29.

3.2.2 Step 2 - Analysis
A review of applicable permits and regulations has demonstrated that there is no existing requirement for quarterly testing of mercury in either Unit 1 or 2 of OMSL. Both the existing permits and the Emission Guidelines for MWCs (40 CFR 60.38b) use an annual test frequency.

Condition B.109 of the DRAFT Title V Permit only applies to Unit 1 and there is no comparable requirement for Unit 2. OMSL understands that the sole reason for this requirement is that Unit 1 processes biomedical waste however the State of Florida Regulations cited by the Department (62-296.401(4)) for biomedical waste incineration units also require annual testing. If the quarterly testing is related to processing of biomedical waste, please note that Item 2.2 of this application commits OMSL to cease processing of biomedical waste by September 1, 2001.

OMSL does not believe that there is an existing regulatory requirement for the quarterly testing of Unit 1 whether that unit is processing biomedical waste or not and subsequently proposes that mercury testing should be on an annual frequency.

3.2.3 Step 3 – Proposed Permit Condition
An annual mercury test frequency is proposed for Permit Number AC35-115379 and the Title V permit. This frequency is consistent with the existing permit and applicable State and Federal regulations. Consequently, Condition B.109 of the DRAFT Title V permit should be removed in its entirety.

3.3 MSW Throughput Limits and Monitoring Requirements

3.3.1 Step 1 – Reference Permit Conditions

Specific Conditions of Permit Number AC 35-115379

1.a Each of the two municipal waste combustors (MWC) shall have a design rated capacity of 250 tons Municipal Solid Waste (MSW) per day, 104 million Btu input per hour and 60,200 pounds steam output per hour with MSW having a heating value of 5,000 Btu per pound.

1.b 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).

1.c The normal operating range of the MWC shall be 80% to 115% of design rated capacity.

Specific Conditions of AO35-193817

1.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).

3.3.2 Step 2 - Analysis

There are three process parameters cited in both Condition 1.a and 1.b of OMSL Permit Number AC 35-115379; 1) tons per day of MSW, 2) heat input as million Btu per hour , and 3) steam load as pounds per hour. OMSL proposes that the only appropriate parameter for determining unit load is the four hour block average steam rate for each MWC. Heat input should be removed as a process parameter because it is a surrogate for steam load and cannot be measured in the same reliable manner as steam rate. The average daily throughput of MSW is appropriate as a monthly average that is used to determine the allowable process rate of waste that have a permit limit that is expressed as a percent of the total MSW throughput rate. Examples of waste with a percent throughput limit are Other Solid Waste/Segregated Loads, tires and Nonhazardous Solid Waste Contaminated With Oil. The rationale for this analysis is provided below.

The relationship between steam production and facility operations was examined by the USEPA when developing their Good Combustion Practices (GCP). The detailed definition and application of GCP is set forth at 40 CFR 50.53b and has been cited and used in Title V permits issued by the Department including Final Permit No. 0570261-001-AV for the Hillsborough County Resource Recovery Facility and Final Permit No. 1010056-002-AV for the Pasco County Resource Recovery Facility. GCP includes three operating parameters that provide the Department with reasonable assurance that combustion related emissions including dioxins and furans will be controlled to a level below the applicable emission limits. The three parameters are; 1) unit load as steam rate, 2) carbon monoxide concentration, and 3) flue gas temperature into the baghouse. The federal emission guidelines for existing large MWCs include specific calibration standards for each of these parameters, therefore both OMSL and the Department would have accurate evidence that the emission limits are being attained. The following table provides an overview of which federal regulation applies to each GCP parameter.

GCP Parameter	Regulatory Reference		
	Cb	Eb	Other
Steam Load Level	60.38b	60.58(b)(i)(6)	---
Baghouse Inlet Flue Gas Temperature	60.38b	60.58(b)(i)(7)	---
Carbon Monoxide	60.34b	---	40 CFR Part 60 Appendix B Performance Specification 4

The EPA's GCP are referenced throughout this application. In order to help facilitate the Department's review of this application, background GCP information provided by the EPA is provided herein as Appendix B. The GCP were developed to minimize both the formation and emission of dioxins/furans and other trace organics. Each of the three components is important however only load is discussed in this section due to the subject of this section being load monitoring of a MWC unit.

Municipal waste combustor unit load is defined at 40 CFR 60.51b as the steam load determined by very specific procedures defined at 40 CFR 60.58b(i)(6). These procedures require the use of calibrated steam flow meters that will provide output on a continuous basis and record steam flow as a 4-hour block arithmetic average. The GCP provision regarding unit load found at 40 CFR 60.53b(b) requires that a large MWC shall not operate at a load level greater than 110 percent of the maximum demonstrated unit load. This requirement is in the DRAFT Title V Permit in Article B.10, B.14, D.10 and D.14. OMSL proposes that steam rate is the only appropriate parameter for determining facility load and that the maximum unit load for each MWC at OMSL would be 69,000 lb per hour as a 4 hour block average. This maximum steam rate would apply regardless of the steam rate during the most recent dioxin/furan compliance test program.

OMSL is proposing that MWC unit load should be based on a 4 hour block average in lieu of the existing 3 hour block average. This proposal would enable compatable reporting and comparison with other GCP parameters including carbon monoxide and baghouse inlet temperature. The use of a 4 hour block will not enable an increase in emissions because OMSL will be subject to the same emission limits regardless of the averaging period and a different averaging period does not enable OMSL to process more or less waste.

The existing construction permits establish both design and maximum conditions for OMSL. While the design terms were appropriate for enabling construction of the facility, current facility operations are limited by the maximum values and not the design values. Therefore only the maximum values are proposed as appropriate facility operating limits in the construction permit. Specific Condition 1.a and 1.b of Permit Number AC 35-115379 establishes the design and maximum rated operating conditions, respectively. For the purpose of establishing a PSD permit with clear operating conditions, only Condition 1.b is proposed to be applicable because this condition establishes the maximum allowable operating conditions. Based upon the above steam-based discussion, Condition 1.b should be limited to steam rate only.

3.3.3 Step 3 – Proposed Permit Conditions

The proposed permit condition that defines the maximum acceptable MWC unit load is;

> "The maximum individual MWC steam generation rate as a four hour block average shall not exceed 110 % of the four hour block average during the most recent dioxin/furan performance test demonstrating compliance with the applicable limit for dioxins/furans however in no case shall the four hour block average exceed 69,000 lbs per hour. The steam rate is equivalent to the maximum MSW charging rate."

The proposed permit condition for establishing the daily throughput of MSW is;

> "The daily MSW throughput limit of 288 TPD is a monthly average that shall be determined each calendar month by using the Facility's truck scale weight data, refuse pit inventory data and other data as necessary to establish the average daily throughput of MSW. This estimated value shall be used to determine the acceptable amount of Other

Solid Waste, Tires, Segregated Loads and Nonhazardous Solid Waste Contaminated with Oil when applying the permit percentage limits for these waste types.

3.4 Unit Operating Range
3.4.1 Step 1 – Reference Permit Conditions
Specific Conditions of Permit Number AC 35-115379
Specific Condition 1.d. The normal operating range of the MWC shall be 80 % to 115 % of design rated capacity.

DRAFT Title V Permit Conditions
B.80.j The furnace heat load shall be maintained between 80% and 115% 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.

3.4.2 Step 2 – Analysis
There are two general issues that require discussion; 1) the need for a specified range of operations, and 2) if a range is required, the appropriate process parameter for such.

In regards to the need for a range, the range specified in the PSD permit represents the regulatory philosophy at that time for MWCs. Since that time, both environmental agencies and facility operators have implemented many changes and acquired years of operating experience. From a regulatory perspective, the EPA has established Good Combustion Practices (GCP) for the purpose of directly monitoring the combustion process at any load condition with load being specified as steam generation rate. Likewise, facilities have implemented new and improved equipment designs and process control methodologies. The net result is that the existing operating range requirement has been superceded by the EPA's performance requirements established at 40 CFR 60. 58b. Therefore, OMSL proposes that the existing PSD condition should be replaced with the requirements of 40 CFR 60.58b and that the emission limits apply over the entire range of MWC operations except during periods of startup, shutdown and malfunction.

If the Department desires to maintain an operating range, the range should be based solely on steam rate. The information provided in Comment 3.3 establishes OMSL's position that the only process parameter that can be reliably and accurately measured is steam flow rate.

3.5.3 Step 3 - Proposed Permit Condition
In order for the final PSD and Title V permit to be clear, the proposed condition would read as;

> "The maximum individual MWC steam generation rate as a four hour block average shall not exceed 110 % of the four hour block average during the most recent dioxin/furan performance test demonstrating compliance with the applicable limit for dioxins/furans however in no case shall the four hour block average exceed 69,000 lbs per hour. The steam rate is equivalent to the maximum MSW charging rate."

3.6 Continuous Monitoring of Furnace Combustion Temperature
3.6.1 Step 1 – Reference Permit Conditions
Specific Conditions of Permit Number AC 35-115379
6.a. Devices shall be installed 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.

Specific Conditions of Permit Number AO 35-193817

4.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

DRAFT Title V Permit Conditions

B.76 All continuous monitoring systems (CMS) or monitoring devices shall be installed such that representative measurements of emissions or process parameters from the affected facility are obtained. Additional procedures for location of continuous monitoring systems contained in the applicable Performance Specifications of Appendix B of 40 CFR 60 shall be used.

B.80 The permittee shall install, calibrate, maintain and operate (1) CEMS devices for opacity, oxygen, carbon monoxide, and sulfur dioxide; and (2) CMS devices to continuously monitor and record steam production, the furnace exist gas temperature (FEGT), the secondary (or last) combustion exit temperature, and the flue gas temperature at the exit of the acid gas control equipment.

B.112 Periodic Monitoring: Combustion Chamber Temperature

a. A continuous temperature monitor shall be installed, calibrated, maintained, and operated in the furnace combustion chamber. The temperature monitor shall be calibrated every calendar quarter.
b. An electrical interlock shall be established between the combustion chamber temperature monitor and the biomedical waste feed system ; and, any time that the combustion chamber temperature drops below 1800 F, the biomedical waste feed system shall cease operation until the combustion temperature of 1800 F is restored.

3.6.2 Step 2 – Analysis

The requirement to continuously monitor flue gas temperature in the furnace represents the regulatory philosophy at the time of the initial PSD permit application. Since that time, both environmental agencies and facility operators have recognized that the measurement of flue gas temperature in the furnace is not a viable surrogate for good combustion chemistry. From a regulatory perspective, the EPA has established Good Combustion Practices (GCP) for the purpose of directly monitoring the facility operations including parameters that are known to have an effect on stack emissions. The three process parameters that define GCP are; 1) steam rate, 2) carbon monoxide concentration, and 3) flue gas temperature into the baghouse. Each of these process parameters can be directly measured and thereby provide the Department with reasonable assurance that the emission limits are being attained.

The measurement of steam load is a direct indication of the operating capacity of the unit and was selected to prevent excessive carryover of particulate matter to downstream sections of the boiler. Minimization of particulate matter carryover serves to minimize the formation of dioxins/furans downstream of the combustor. Low carbon monoxide concentration is a surrogate for combustion conditions ("complete combustion") that are conducive to the destruction of dioxins/furans. These two parameters work together to provide reasonable assurance that combustion related pollutants are being maintained below the applicable emission limits as long as compliance was demonstrated at the same proximate steam load condition. The flue gas temperature requirement addresses volatile pollutants by requiring the baghouse temperature to be maintained within a certain tolerance consistent with compliance test results. Pollutants that are captured by the air

pollution control system through temperature control will continue to be captured as long as the same approximate flue gas temperature is maintained. The 30 degree F tolerance provided by GCP is based upon the EPAs determination that the formation of dioxin/furan emissions are negligible when the flue gas temperature is below 435 to 480 F and that adsorption of dioxins/furans is enhanced below the 435 to 480 F temperature range.

One additional process parameter that supplements GCP is the continuous injection of carbon at a predetermined rate. This reagent also helps to remove a variety of solid and vapor phase pollutants.

In conclusion, neither direct monitoring of funace flue gas temperature nor a roof top correlation is a viable surrogate for stack emissions. The EPA's GCP is a proven surrogate that should be used in lieu of the existing permit conditions. The Department has indicated in December 21, 2000 correspondence to the Pasco County Resource Recovery Facility (Appendix C) that the Department will consider a request to remove combustion zone monitoring requirements from current permits if the Department has reasonable assurance that continuing compliance can be attained by direct monitoring. OMSL proposes that the EPAs GCP and direct monitoring requirements provides the reasonable assurance required by the Department.

3.6.3 Proposed Permit Condition
The cited PSD conditions should be deleted and replaced with the requirements of 40 CFR 60.58b.

3.7 Air Pollution Control Equipment Design
3.7.1 Step 1 – Reference Permit Conditions
Specific Conditions of Permit Number AC 35-115379
2.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).

Specific Conditions of Permit Number AO35-193817
2.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).

DRAFT Title V Permit No. 0690046-001-AV
B.40 (Unit 1) and D.39 (Unit 2). The acid gas emission control system for Unit 1 (Unit 2) shall cool the flue gases to an average temperature not exceeding 300 F (3-hour rolling average).

3.7.2 Step 2 – Analysis
The requirement to continuously cool the flue gas temperature to a specific temperature represents the regulatory philosophy at the time of the initial PSD permit application and review. This approach was used to provide control of volatile air pollutants. While this approach was credible and provided the Department with the necessary reasonable assurance that certain pollutants would be maintained below emission limits, the EPA's GCP and the requirement for continuous injection of carbon provides the same and to a certain degree, better reasonable assurance.

The GCP requirement at 40 CFR 60.53b(c) requires that the flue gas temperature at the inlet to the particulate control device (in the case of OMSL, it is a baghouse), does not exceed 30 F above the maximum 4 hour block average temperature during the annual dioxin/furan performance test. This temperature condition provides some minimal flexibility in facility operations while also providing reasonable assurance that emission limits are being achieved. While GCP would enable

the actual flue gas temperature to be above 300F, and therefore above the existing PSD condition, OMSL is also now injecting carbon on a continuous basis. This reagent, which helps to remove both solid phase and vapor phase pollutants from the flue gas, was not available at the time of the original PSD permit. The combination of continued low flue gas temperatures and carbon injection is a more effective combination for reducing volatile pollutants than temperature alone.

While the GCP does introduce some flexibility in facility operations, the Department should recognize that a lower flue gas temperature increases reagent utilization and subsequently it lowers the cost of operations. OMSL is therefore motivated to maintain the lowest practical temperature that does not compromise facility operations.

In conclusion, the flue gas temperature control requirement of 40 CFR 60.53(b)c will provide the same or better control of air emissions as the existing permit condition when considering the requirement for OMSL to inject carbon. The combination of temperature control and carbon injection provides reasonable assurance that the emission limits will be achieved. The four hour block average required by 40 CFR 60.53(b)c should also be used in lieu of the existing 3 hour average. The 4 hour averaging period will provide consistency with all other GCP parameters including steam load and carbon monoxide levels.

3.7.3 Proposed Permit Condition

The cited permit and DRAFT Title V conditions should be deleted and replaced with the requirements of 40 CFR 60.53b(c). The proposed condition would read as;

> " The maximum particulate matter control device (baghouse) temperature shall be the highest 4-hour arithmetic block average at the particulate matter control device (baghouse) inlet during four consecutive hours during the most recent dioxin/furan performance test demonstrating compliance with the applicable limit for dioxins/furans. OMSL shall not cause the Facility to operate at a temperature, measured at the particulate control device inlet, exceeding 17 degrees Celcius above the maximum demonstrated particulate matter temperature during the most recent dioxin/furan performance test."

3.8 Beryllium Emission Limit
3.8.1 Step – 1 - Reference Permit Conditions
Specific Conditions of Permit Number AC 35-115379

3.h Beryllium	: 2.0 * 10^-7 gr/dscf corrected to 12 % CO2
Emissions Table	: 2.0 * 10^-7 gr/dscf corrected to 12 % CO2

Specific Conditions of Permit Number AO35-193817
7.h Beryllium 2.0 * 10^-7 gr/dscf corrected to 12 % CO2

3.8.2 Step 2- Analysis
OMSL proposes that the requirement to test for beryllium emissions should be deleted from the construction permit for several reasons including;

1. The NESHAP beryllium standard is not applicable to a MWC if it does not accept beryllium-containing waste generated by any of the source categories listed in the rule (extraction plant, ceramic plant, foundries and propellant plants that process beryllium or beryllium compounds). OMSL does not knowingly accept these waste types, therefore it should not be subject to a emission limit.

2. The EPA (reference Appendix D for reference information) agrees that MWCs are not subject to the NESHAP standard. and;
3. The OMSL database is all "nondetects".

In summary, the absence of any measurable amount of beryllium in stack flue gas is evidence that the OMSL does not process beryllium-containing waste and/or if there is any beryllium naturally present in MSW, the air pollution control system reduces the concentration to an amount that is not detectable. In addition to the absence of measurable beryllium, OMSL does not solicit waste containing beryllium and does not knowingly accept beryllium containing waste.

3.8.3 Step 3 – Proposed Permit Condition
The cited Beryllium emission limit permit conditions should be removed in their entirety.

A permit condition should be added that prohibits the Facility from knowingly accepting beryllium-containing waste, as defined in 40 CFR 61, Subpart C.

3.9 Beryllium Test Method
3.9.1 Step 1 – Reference Permit Conditions
Specific Conditions of Permit Number AC 35-115379
3.f.(14) Method 104 for determination of beryllium emission rate.

Specific Conditions of Permit Number AO35-193817
8.f.15 Method 104 for determination of beryllium emission rate.

3.9.2 Step 2 – Analysis
While Comment 3.9 of this application proposes that testing of beryllium emissions is not required nor warranted, the construction and operating permits include a test provision for beryllium. If the test requirement for beryllium is removed, the test method should also be removed. If the Department decides that testing of beryllium emissions is required, the cited permit conditions should be modified to include EPA Reference Method 29 as a valid method for the determination of beryllium emissions. Method 29 – Determination of Metals Emissions From Stationary Sources, is applicable to beryllium. Therefore, inclusion of EPA Method 29 and 104 as approved methods would provide OMSL with flexibility to use either approved method without compromising the quality of any requisite testing.

3.9.3 Step 3 – Proposed Permit Condition
Method 29 or 104 may be used to determine the beryllium emission rate.

3.10 Volatile Organic Compound Emission Limit
3.10.1 Step 1 - Reference Permit Conditions
Specific Conditions of Permit Number AC 35-115379
3.e 70 ppmdv as carbon corrected to 12 % CO2

Specific Conditions of Permit Number AO35-193817
7.e 70 ppmdv as carbon corrected to 12 % CO2

3.10 Step 2 – Analysis
Volatile organic compounds (VOCs) are known to be the result of incomplete combustion. EPAs GCP are an engineered solution to assure that good combustion is occurring on a continuous basis. The continuous monitoring of steam load and carbon monoxide provides a continuous and reliable source of data that provides the Department with reasonable assurance that VOCs are

being maintained below the cited emission limit. The implementation of test method 25A is costly and provides minimal information when compared to the data available from continuous measurements. The VOC test results from OMSL have been uniformly low as demonstrated by the table provided below;

Test Period	VOC Test Results	
	Unit 1	Unit 2
1991	0.9	3.2
1996	4.67	4.45
2000	1.53	1.68

OMSL proposes removal of the requirement for testing of VOCs because Subpart Cb's GCP is a surrogate that provides information on a continuous basis.

The original PSD application used a VOC emission factor of 8.3 lbs/hour to yield a Potential to Emit of 36 tons per year. This was below the Significant Emission limit of 40 TPY therefore it was not subject to PSD review. The Best Available Control Technology (BACT) analysis determined that good facility design and combustion practices was BACT and that low carbon monoxide levels would serve as a surrogate for VOCs. The OMSL proposal is consistent with this original analysis and the EPA's GCP.

3.10.3 Step 3 – Proposed Permit Condition
OMSL proposes the removal of the cited reference conditions.

3.11Fluoride Emission Limit
3.11.1 Step 1 - Reference Permit Conditions
Specific Conditions of Permit Number AC 35-115379
3.g 1.5 E – 3 gr/dscf corrected to 12 % CO2

Specific Conditions of Permit Number AO35-193817
7.g 1.5 E – 3 gr/dscf corrected to 12 % CO2

3.11 Step 2 – Analysis
Stack fluoride emissions are due to the presence of fluoride in the waste stream and it's conversion to hydrogen fluoride. The emission rate of this pollutant is typically very low due to the low concentration in waste and the high removal efficiency of the semi-dry scrubber. HF is removed at a higher removal efficiency than SO2 due to its chemical characteristics. SO2 emissions are continuously monitored by the facilities CEMs.

The compliance stack data presented below demonstrates that fluoride emissions have been significantly (1 to 2 orders of magnitude) below the permit limit.

Test Period	FluorideTest Results	
	Unit 1	Unit 2
1991	1.49 E - 5	1.79 E –5
1996	<2.54 E -4	2.695 E –4
2000	<5.8 E -5	<6.1 E -5

The Subpart Cb standards for SO2 and HCL that were in effect at the time of the 2000 testing are more stringent than those previously in effect. These more stringent standards will require the facility to be operated in a manner that will assure low fluoride emissions. OMSL therefore

proposes the removal of the requirement to test for fluoride emissions and the use of SO2 monitoring as a surrogate.

3.12 Activated Carbon Monitoring Provisions
3.12.1 Reference Permit Conditions
Specific Conditions of Permit Number AC 35-115379
Change of Condition Dated September 13, 1995

3.12.2 Analysis
The referenced September 13, 1995 Change of Condition to AC 35-264176 was issued by the Orlando District Office of the DEP (provided herein as Appendix E). This document establishes the appropriate conditions for monitoring the carbon injection system. Both the Department and OMSL agree with the findings in this Change of Condition however OMSL understands that these findings cannot be incorporated into the construction permit until they have been made available for public comment. OMSL therefore proposes that the new conditions established by the Change of Condition are made available for public comment through this permit amendment.

3.12.3 Proposed Permit Condition
OMSL proposes that the "To" conditions of the September 13, 1995 Change of Condition are incorporated into the construction permit.

3.13 CEM Reporting Frequency
3.13.1 Step 1 - Reference Permit Conditions
Specific Conditions of Permit Number AC 35-115379
7.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.

3.13.2 Step 2 - Analysis
40 CFR 60.39 b Reporting and Recordkeeping Guidelines and Compliance Schedules establishes, thru reference to 40 CFR 60 59b, that the appropriate reporting frequency is semiannual and not quarterly regardless of whether there were or were not excess emission events. OMSL therefore proposes that the federal requirements of 40 CFR 60.39 should replace the existing requirements.

3.13.3 Step 3 – Proposed Permit Condition
OMSL proposes that PSD permit Condition 7.c should be modified to require semiannual reporting instead of quarterly testing.

3.14 Oil Contaminated Solid Waste Reporting Period
3.14.1 Step 1 - Reference Permit Conditions
Specific Conditions of Permit Number AC 35-115379
Condition 1.e.1. A of the June 15, 1995 Amendment (Appendix F)

3.14.2 Step 2 – Analysis
The cited condition expresses the throughput limit of oil-contaminated solid waste as twenty (20) percent by weight of the total solid waste input, based on a rolling 30-day average. While OMSL can provide this information, OMSP is proposing that the throughput shpuld be expressed as a daily average on a calendar monthly basis. This approach would create consistent reporting requirements for all solid waste streams that are expressed as a percent of the total MSW throughput rate. This alternative approach would not increase the total amount of oil-

contaminated solid waste that can be processed. This alternative approach would be consistent with the monthly reporting procedure used by the Department to establish reporting requirements for Other Solid Waste at other MWCs in Florida.

3.14.3 Step – 3 – Proposed Permit Condition
Special Condition 1.e.1.A should be changed from a rolling 30-day average to an "average daily throughput as a monthly calendar average".

3.15 Startup, Shutdown and Malfunction Periods
3.15.1 Step 1 - Reference Permit Conditions
Specific Conditions of Permit Number AC 35-115379
Permit condition 7.c requires an operator to consider the requirements of Rule 62-210.700(1), F.A.C.. The current requirement in this section states:

> "Excess emissions resulting from start-up, shutdown, or malfunction of any emission units shall be permitted provided (1) best operational practices to minimize emissions are adhered to, and (2) the duration of excess emissions shall be minimized, but in no case exceed two hours in any 24-hour period unless specifically authorized by the Department for longer duration."

3.15.2 Step 2 – Analysis
The Emission Guidelines for large MWCs, promulgated as 40 CFR 60 Subpart Cb, and adopted as Rule 62-204.800(8)(b), F.A.C. has significantly increased the stringency of the standards applied to the facility and increased the complexity of the control equipment. This is discussed in the EPA Background Information Documents and the proposal for the Emission Guidelines, which specifically allows three hours of excess emissions for start-up, shutdown and malfunctions.

The PSD permit does not contain the two-hour limitation, therefore there is no impediment to include the three hour Subpart Cb standard in the PSD permit as the standard for OMSL. This clarification would establish that both Subpart Cb and Rule 62-210.700(1), F.A.C. use a three-hour standard for large MWCs.

The EPA has also recently announced its intent to amend the NSPS and EG for large MWC to provide regulatory relief from the three-hour limitation for shutdowns due to certain malfunctions (Federal Register, December 18, 2000, Volume 65, Number 243). While the EPA has not formally adopted an amendment, their intent to do so is clear and OMSL would want to secure the provisions of this amendment when it is formally adopted.

3.15.3 Step 3- Proposed Permit Condition
The proposed condition would read as;

> "Excess emissions resulting from start-up, shutdown, or malfunction of any emission units shall be permitted provided (1) best operational practices to minimize emissions are adhered to, and (2) the duration of excess emissions shall be minimized, but in no case exceed three hours in any 24-hour period unless specifically authorized by the Department for longer duration. This condition is subject to change upon the EPA's formal adoption of an amendment to the EG for extended shutdown periods for certain malfunctions at large MWCs.

3.16 Furnace Design Temperature

3.16.1 Step 1 - Reference Permit Conditions

Specific Conditions of Permit Number AC 35-115379

1.c The design furnace mean temperature at the fully mixed zone of the combustor shall not be less than 1800 degrees Fahrenheit.

6.a Devices shall be installed 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.

Reference Permit Conditions

Specific Conditions of Permit Number A0 35-193817

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

4.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 at the site.

3.16.2 Step 2 – Analysis

The regulatory requirement to monitor and record the flue gas temperature in the furnace was based on the regulatory philosophy that this parameter was a surrogate for control of combustion related stack emissions, namely dioxins and furans. Since the issuance of the PSD permit, the USEPA has reviewed this subject and determined that Good Combustion Practices (GCP) is the appropriate regulatory requirement for monitoring dioxins and furans on a continuous basis. Monitoring and recording of furnace flue gas temperature is not required however GCP must be followed.

3.16.3 Step 3 – Proposed Permit Condition

Permit condition 1.c can remain as is if there is a permit note that identifies that this design requirement has been met and no further action is required by OMSL.

Permit condition 6.a should be revised to read as;

> "6.a Devices shall be installed to continuously monitor and record steam production and flue gas temperature at the exit of the inlet of the baghouse. "

3.17 Carbon Dioxide (CO2) Monitors

3.17.1Step 1 – Reference Permit Conditions

Specific Conditions of Permit Number AC 35-115379

4. 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.

5.f Average CO and SO2 emission concentrations, corrected for CO2, shall be computed in accordance with the appropriate averaging time periods included in Condition No. 3.

Specific Conditions of Permit Number AO35-193817

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

3.f Average CO and SO2 emission concentrations, corrected for CO2, shall be computed in accordance with the appropriate averaging time periods included in Condition No. 3.

3.17.2 Step 2 - Analysis
Subpart Cb emission limits are referenced to 7 % O2 whereas the PSD permit used 12 % CO2 as the diluent. All Subpart Cb CEM reporting standards are at 7 % O2, therefore there is no longer any need for a CO2 monitor and its associated operation and maintenance costs. OMSL therefore proposes to remove the regulatory requirement for this instrument.

3.17.3 Step – Proposed Permit Condition
The proposed PSD permit conditions are provided below;

> 4. Continuous Emission Monitoring. Continuous Emission Monitors for opacity, oxygen, carbon monoxide, and sulfur dioxide shall be installed, calibrated, maintained and operated for each unit
> 5.f Average CO and SO2 emission concentrations, corrected for O2, shall be computed in accordance with the appropriate averaging time periods included in Condition No. 3.

3.18 Project Description
3.18.1 Step 1 – Reference Permit Conditions
The Project Description reads as follows; " 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."

3.18.2 Step 2 – Analysis
The DRAFT Title V permit provides a detailed list of the fuels that can be processed at OMSL. In order for the construction permit and Title V permit to be consistent with each other, OMSL proposes that the construction permit should include the same scope of fuels or that the construction permit includes either a permit note or clarification that links the Title V definition of acceptable fuels with the construction permit definition.

3.18.3 Step 3 – Proposed Permit Condition
The MWC shall be fueled with municipal solid waste, which can by definition include wood chips, waste tires, internally generated used oil, nonhazardous solid waste contaminated with oil and Other Solid Waste/Segregated Loads. Other fuels or wastes shall not be burned without prior specific written approval of the Department of Environmental protection.

3.19 Emission Limits
3.19.1 1Step 1 – Reference Permit Conditions
Specific Conditions of Permit Number AC 35-115379
3. Flue gas emissions from each unit shall not exceed the following;

Specific Conditions of Permit Number AO35-193817
7. Flue gas emissions from each unit shall not exceed the following;

3.19.2 Step 2 – Analysis
The purpose of this item is to identify the most stringent emission limit for OMSL when existing emission limits are expressed in engineering units consistent with Subpart Cb.

The emission limits established by the referenced conditions are provided as Column 3 of Table 1. Column 3 values are referenced to 12 % CO2 whereas Column 4 presents the equivalent value at 7 % O2. Column 5 of Table 1 provides the current permit emission limits in engineering units that are consistent with those used in Subpart Cb. As an example, metal emission limits have been

converted from gr/dscf to milligrams per dry standard cubic meter. These conversions are being provided to promote consistent units for all pollutants. This change of units does not constitute an increase in emissions. All annual mass emission rates present in the existing PSD permit will remain the same.

Table 3 goes one step further by comparing the existing PSD limits to the Subpart Cb limits when all concentrations are in the same engineering units and referenced to 7 % O2. Table 3 enables a comparison of the current limits with Subpart Cb limits and a determination of which is most stringent. The proposed emission limits in Column 6 of Table 3 do not include a limit for beryllium, VOC's and fluoride based on the information provided in Article 3.8, 3.10 and 3.11 of this application, respectively.

3.19.3 Step 3 – Proposed Permit Condition

The emission limits in the PSD permit should be limited to the most stringent condition which is Column 6 of Table 3. All emission units should be consistent with Subpart Cb.

Table 1
Emission Limits
Existing and Conversion to Subpart Cb
Reporting Convention

Pollutant		Emission Limit					
1	2	3		4		5	
Item	Pollutant	Current Limit at 12 % CO2		Current Limit at 7 % O2 (a)		Current limit at 7 % O2 and Cb Units	
		Conc.	Eng. Unit	Conc.	Eng. Unit	Conc.	Eng. Unit (b)
a	Particulate	0.015	gr/dscf	0.017	gr/dscf	38.9	mg/dscm
b	Sulfur Dioxide	60	ppm	70	ppm	70	ppm
		120	ppm	139	ppm	139	ppm
c	Nitrogen Oxides	385	ppm	447	ppm	447	ppm
d.	Carbon Monoxide	200	ppm	232	ppm	232	ppm
e.	Volatile Organic Compounds	70	ppm	81	ppm	81	ppm
f.	Lead	3.1 E – 4	gr/dscf	3.6 E – 4	gr/dscf	0.82	mg/dscm
g.	Fluoride	1.5 E – 3	gr/dscf	1.7 E – 3	gr/dscf	3.9	mg/dscm
h.	Beryllium	2.0 E – 7	gr/dscf	2.3 E – 7	gr/dscf	5.3 E – 4	mg/dscm
i.	Mercury	3.4 E – 4	gr/dscf	3.9 E - 4	gr/dscf	0.89	mg/dscm

(a) The conversion from 12 % CO2 to 7 % O2 is based upon the fuel factor equation in EPA reference Method 3B. Equation 3B-1 was established to determine the relationship between oxygen (O2) and carbon dioxide at a sampling location. Equation 3B-1 is; Fo = [20.9-%O2]/%CO2. The facility average fuel factor for OMSL is 1.16 based on the data from the 2000 Relative Accuracy test data. Table 2 provides this information.

(b) The conversion from grains per dry standard cubic foot (gr/dscf) to milligrams per dry standard cubic meter (mg/dscm) is as follows; (grain/dscf)*(lb/7000 grain)*(35.29dscf/dscm)*(454 grams/lb)*(1000 milligram/gm)

Table 2
Background Information for
Derivation of OMSL Fuel Factor

The Fo for OMSL was determined from % CO2 and % O2 values from the Relative Accuracy test program in January 2000. The CO2 and O2 values used are;

	Unit 1		Unit 2	
Run No.	CO2 %	O2 %	CO2 %	O2 %
1	9.2	10.3	9.3	10.4
2	9.1	10.0	8.8	10.6
3	8.9	10.3	9.4	10.1
4	8.5	11.0	9.4	10.2
5	8.9	10.2	9.6	9.9
6	9.5	9.9	9.7	9.9
7	8.9	10.3	9.4	10.1
8	8.9	10.2	9.8	9.8
9	8.7	10.5	9.7	9.9
10	9.0	10.3	9.9	9.7
Average	8.96	10.3	9.5	10.1

The application of Equation 3B-1 is illustrated below by the average CO2 and O2 values for Unit 1;

$Fo = [20.9-\%O2]/\%CO2 = [20.9-10.3]/8.96 = 1.18$

The average Fo for Unit 2 is similar at 1.14, therefore OMSL proposes that the facility average of 1.16 is used for conversion of any limit referenced to 12 % CO2.

The fuel factor from equation 3B-1 is 1.18 when using the average values. Therefore, concentrations expressed relative to 12 % CO2 must be multiplied by 1.18 to determine the equivalent concentration at 7 % O2.

Table 3
Comparison of Existing PSD Emission Limits
with Subpart Cb

		Regulatory Requirement			
1	2	3	4	5	6
Item	Pollutant	Eng. Unit (b)	Existing PSD Limit	Subpart Cb	Proposed Limit
a	Particulate	mg/dscm	38.9	27	27
b	Sulfur Dioxide	ppm	70	29	29
		% Removal	70	75	75
		Averaging Period	6 hour rolling	24 hour daily geometric mean	24 hour daily geometric mean
		ppm	139	---	139
			6 hour rolling	---	6 hour rolling
c	Nitrogen Oxides	ppm	447	205	205
		Averaging Period		24 hour daily arithmetic mean	24 hour daily arithmetic mean
d.	Carbon Monoxide	ppm	232	100	100
		Averaging Period	4 hour rolling	4 hour block	4 hour block
e.	Volatile Organic Compounds	ppm	81	---	---
f.	Lead	mg/dscm	0.85	0.49	0.49
g.	Fluoride	mg/dscm	4.1	---	---
h.	Beryllium	mg/dscm	5.5 E – 4	---	---
i.	Mercury	mg/dscm	0.92	0.070	0.070

(a) The conversion from 12 % CO2 to 7 % O2 is based upon the fuel factor equation in EPA reference Method 3B. Equation 3B-1 was established to determine the relationship between oxygen (O2) and carbon dioxide at a sampling location. Equation 3B-1 is; Fo = [20.9-%O2]/%CO2. The fuel factor for OMSL is 1.18 based on the data from the 2000 Relative Accuracy test data. Table 2 provides this information.

(b) The State standard of 0.070 mg/dscm is more stringent than the Federal standard of 0.80 mg/dscm.

APPENDIX A

REGULATORY CORRESPONDENCE FOR CONVEYORS

OGDEN

Ogden Martin Systems of Lake, Inc.
3830 Rogers Industrial Park Rd.
Okahumpka, FL 34762
352 365 1611
Fax 352 365 6359

June 30, 1997

Dr. Anatoliy Sobolevskiy
Air Compliance Engineer
Florida Department of Environmental Protection
Central District Office
3319 Maguire Blvd., Suite 232
Orlando, Florida 32803

SUBJ: Biomedical Waste Conveyor
Ogden Martin Systems of Lake, Inc.

Dear Dr. Sobolevskiy:

In furtherance of our conversation on June 17, 1997, Ogden Martin Systems of Lake, Inc. (OMS Lake) seeks the Department's guidance regarding the installation of a leak proof crane bucket at our facility. As we discussed, OMS Lake intends to use the bucket to compliment the existing conveyor used for conveying medical waste from the tipping floor directly to the furnace feedchute.

Concern for safety (e.g. needle sticks) has led OMS Lake to seek a safer method of handling medical waste. The use of the crane bucket that I discussed with you will minimize contact between facility personnel and the medical waste. As with the existing conveyor system, medical waste will not be intermingled with other municipal solid waste until it enters the feedchute. Additionally, the bucket will be capable of weighing each load, for demonstrating compliance with Permit No. AO35-193817.

Because this change does not affect emissions, it is our understanding that no formal permitting action is necessary. Nonetheless, we ask that your Department advise of any regulatory requirements that may be necessary prior to the bucket's installation later this summer.

Thank you for your continued assistance. If more information about the new bucket is needed, please do not hesitate to contact me at (352) 365-1611.

Sincerely,

Cecil D. Boatwright, for
Facility Manager
Ogden Martin Systems of Lake, Inc.

Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

July 29, 1997

Cecil D. Boatwright, Facility Manager
Ogden Martin Systems of Lake, Inc.
3830 Rogers Industrial Park Road
Okahumpka, Florida 34762

OCD-AP-97-173

Lake County - AP
Biomedical Waste Conveyor

Dear Mr. Boatwright:

Your information regarding the installation of a new more secure leak proof crane bucket at Unit #1, to transport medical waste from the tipping floor directly to the furnace feedchute has been reviewed. We understand your concern for safety and from the information provided, the existing medical waste conveyor system can not be considered as a safe method of handling medical waste.

Specific Condition #5 of permit AO69-193817, requires you to submit any changes in the method of operation to the Department's Central District office for prior approval. In order for the Department to get an evaluation of the new method, please submit a detailed explanation of the proposed medical waste handling system, including weighing of each load, weight recording order, loading of the bucket from the trucks, prevention of mixing medical waste with other municipal solid waste, etc.

If you have any questions regarding this matter, please call me at (407)893-3333 or write to the above address.

Sincerely,

A. Sobolevskiy, Ph.D.
Compliance/Asbestos Supervisor
Air Resources Management

AS/j

OGDEN

Ogden Martin Systems, Inc.
3830 Rogers Industrial Park Road
Okahumpka, FL 34762
352 365 1611
Fax 352 365 6359

September 5, 1997

Dr. Anatoliy Sobolevskiy, Ph.D.
Compliance/Asbestos Supervisor
Florida Department of Environmental Protection, Central District Office
3319 Maguire Blvd., Suite 232
Orlando, Florida 32803

SUBJ: Biomedical Waste Conveyor
Request for Additional Information

Dear Dr. Sobolevskiy:

Thank you for your letter of July 29, 1997, regarding the regulatory requirements for the installation of a medical waste conveying bucket at the Lake County Resource Recovery Facility. Per your request, the following explanation(s) are being provided to allow your Department to conduct a detailed evaluation of the new system.

(1) Weighing of each load: Weighing of each load will be accomplished via existing load cells on the crane system. The cells measure strain on the supporting cables which is translated into weight within the bucket (minus tare weight of the actual bucket). This system is currently used to weigh MSW loads delivered to the feedchute by the MSW grapple. It is important to note that MSW grapple loads are intentionally charged over the lip of the feedchute, resulting in significant amounts of MSW returning to the storage pit after it has already been weighed. This practice will not be employed with medical waste loads.

(2) Weight recording order: The weight of each load will be automatically recorded when the crane bucket is positioned over the feedchute. These weights are printed in the control room automatically and will be retained for compliance verification.

(3) Loading of the bucket from the trucks: The bucket will be positioned at the edge of the refuse storage pit. Manual labor will be employed to load boxed medical waste or empty reusable plastic containers (filled with red bag waste) into the bucket, by way of an inclined chute. The use of these reusable impermeable containers should greatly minimize the possibility of needle sticks for the laborers.

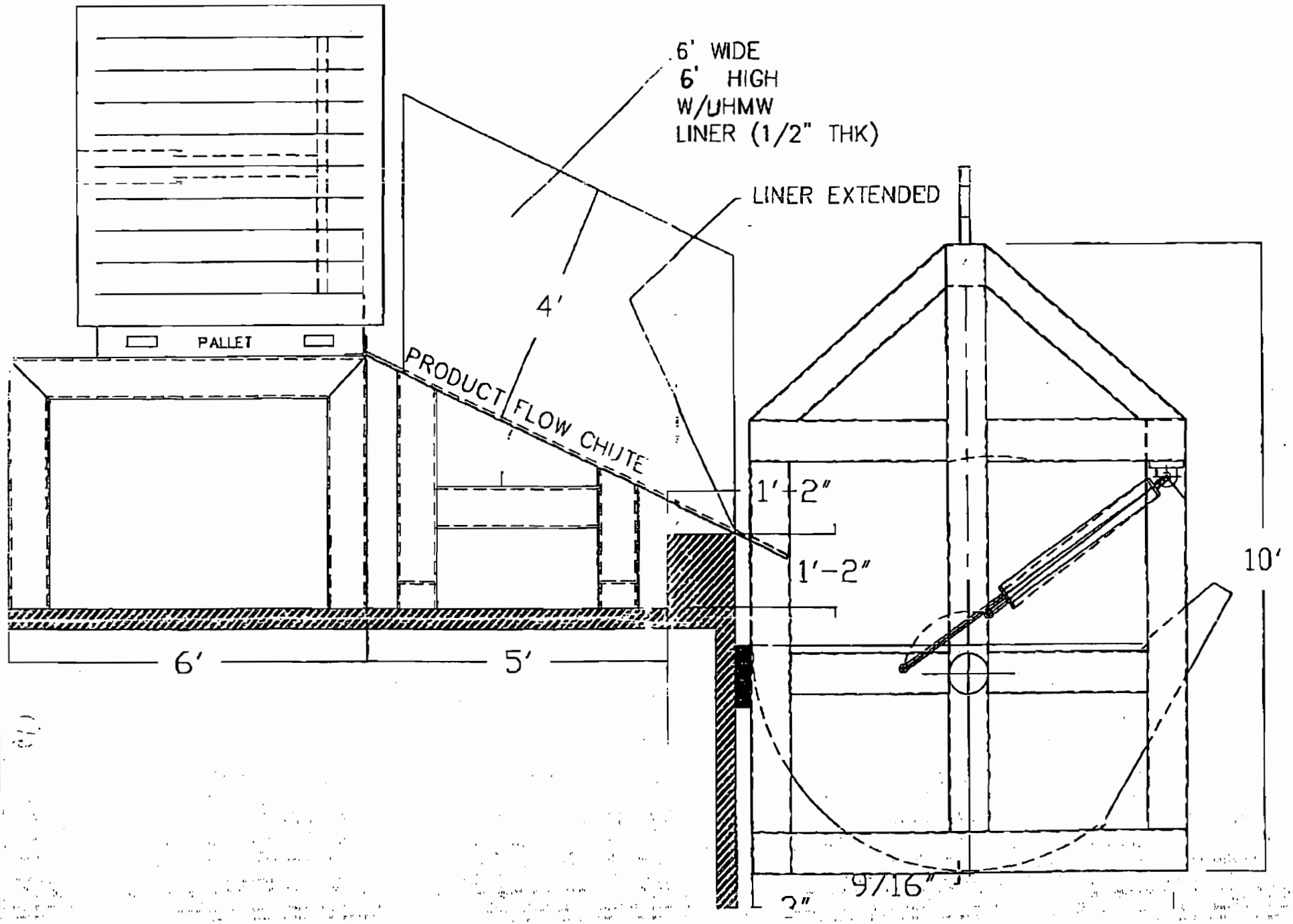
(4) Prevention of mixing medical waste with other municipal solid waste: The tipping bucket is designed to be leak-proof during transport to the feedchute and will not be emptied until it is directly over the feedchute. This will prevent the medical waste within the bucket from coming into contact with the municipal solid waste in the storage pit.

Attached, please find a preliminary drawing of the bucket. We believe that this system, used in conjunction with the existing conveyor, will enhance the facility's already excellent safety record. Thanking you in advance for your assistance in this matter, we look forward to your final guidance. If additional information is needed, please contact me at (352) 365-1611.

Sincerely,

Cecil D. Boatwright
Facility Manager
Ogden Martin Systems of Lake, Inc.

cc: J. Gorrie
M. Slaby
S. Bass
D. Porter


6' WIDE
6' HIGH
W/UHMW
LINER (1/2" THK)
LINER EXTENDED
4'
PALLET
PRODUCT FLOW CHUTE
1'-2"
1'-2"
10'
6'
5'
9/16"
2"

APPENDIX B

EPA INFORMATION ON GOOD COMBUSTION PRACTICES

performance standards, an individual owner or operator of an MWC is free to select this or any other approach or technology to achieve the NSPS.

Comment: Several commenters (IV-D-28, IV-D-54, IV-D-55, IV-D-67, IV-D-85, IV-D-87, IV-D-99, VI-B-02, VI-B-05, VI-B-06) described concerns regarding ammonia slip from the use of SNCR for NO_X control. The commenters were concerned that ammonia slip at the 180 ppmv NO_X control level is not addressed in the proposed regulation.

Four commenters (IV-D-28, VI-B-02, VI-B-05, VI-B-06) said that New Jersey and New York are beginning to consider ammonia slip in their SIP's. One commenter (IV-D-99) noted that several States have ammonia slip emission limits as well as NO_X limits, and recommended that the EPA establish levels for both NO_X and ammonia that are consistent and practical based on existing technology.

Response: The NO_X levels being promulgated for new and existing MWC units at large MWC plants represent a 35- to 55-percent reduction from uncontrolled levels. Data show that this level of control is not associated with high levels of ammonia slip, which are expected to be less than 10 ppmv. While the EPA is not required to set a limit for ammonia under section 129, States are free to impose additional limitations as they deem appropriate.

3.5.6 Good Combustion Practices

Comment: Two commenters (IV-D-85, IV-D-98) said that the EPA has not defined the term "MWC unit load" in the proposal, such that the relationships between steam flow measurements, the definition of "maximum MWC unit capacity," and throughput limitations are not clearly established.

Response: The term "MWC unit load" is being defined in the final NSPS and guidelines as the steam flow of the boiler, which can be measured as steam flow or feedwater flow as described in proposed § 60.58b(i). The definition of "maximum

MWC unit capacity" (proposed § 60.51b) and the throughput limitation description (proposed § 60.53b(b)) are clarified to reflect this change in the definition of MWC unit load.

Comment: Several commenters (IV-D-18, IV-D-28, IV-D-30, IV-D-44, IV-D-75, IV-D-80, IV-D-82, IV-D-85, IV-D-98, IV-D-120) advised against removal of the flow orifice or flow nozzle, because welded-in devices are not designed for this type of repeated maintenance and would require shutdown of the unit for extensive periods. They also said that removal and bench calibration of entire steam flow measurement systems is expensive and unnecessary. One commenter (IV-D-75) said the factory-calibrated orifice plate should be adequate as long as it is used consistently. One commenter (IV-D-44) pointed out that because the water used is of such a high purity, there is little potential for the flow element to degrade. The commenter (IV-D-44) also noted that the accuracy of the flow element far exceeds the level required for the proposed 4-hour averaging period.

One commenter (IV-D-98) informed the EPA that flow elements recently removed at two MWC's that had been operating for 5 to 7 years were measured, and both flow elements were within the tolerances of their original manufacturing specification of 0.0005 inches. Four commenters (IV-D-44, IV-D-54, IV-D-80, IV-D-95) recommended that the steam flow measurement elements (orifice plate, vortex shredder bar, annubar, etc.) be visually inspected every 3 years.

Several commenters (IV-D-18, IV-D-28, IV-D-30, IV-D-85) recommended that instead of requiring removal of the flow orifice or flow nozzle, the EPA should require that the differential pressure transmitters be properly calibrated according to the manufacturer's recommendations prior to the annual dioxin/furan test. Two commenters (IV-D-54, IV-D-80) suggested that the signal conversion elements, which are subject to drift, be calibrated annually.

Response: Based on the commenters' input, the EPA is not promulgating any requirements for periodic inspection and calibration of orifice plates or other flow measurement devices. Absolute accuracy is not the key issue. What is important is the relative accuracy between measurements and relative accuracy will be maintained because the same plate used during the annual dioxin/furan test will continue to be used for load measurements until the next retesting. However, the promulgated rules do require annual calibration of the transducers and signal converters in accordance with the manufacturers' instructions and before each performance test. Records must be kept documenting calibration of instruments.

Comment: Several commenters (IV-D-18, IV-D-28, IV-D-30, IV-D-44, IV-D-54, IV-D-80, IV-D-85, IV-D-120) strongly recommended that alternative technologies other than the proposed measurement of steam flow be allowed for monitoring MWC unit load. One commenter (IV-D-75) suggested that a menu of options should be available for load measurement to afford operators flexibility, and should include alternatives such as gross power output and refuse charging rate. One commenter (IV-D-120) noted that not all plants use orifice plates, which makes the application of ASME PTC 4.1 inappropriate.

One commenter (IV-D-03) suggested that the measurement of load could alternatively be based on fuel feed rate (in Btu per hour) instead of on steam flow. Several commenters (IV-D-18, IV-D-28, IV-D-30, IV-D-44, IV-D-54, IV-D-85, IV-D-120) suggested operators should have the option to measure plant capacity using boiler feedwater flow, which has been properly corrected to account for sootblowing, desuperheating, blowdown, and miscellaneous flows. Two commenters (IV-D-74, IV-D-103) did not support the use of boiler feedwater flow as an alternative to steam flow measurement.

Two commenters (IV-D-54, IV-D-80) strongly recommended that alternative technologies other than the proposed ASME PTC procedures (orifice plate and differential pressure transmitter) be allowed for steam flow measurement if they exhibit equivalent accuracy. One commenter (IV-D-80) suggested that flexibility must be provided for MWC's that use other methods such as annubar, vortex shredder, or pitot.

Five commenters (IV-D-44, IV-D-74, IV-D-75, IV-D-98, IV-D-103) contended that, for a number of reasons, measuring flue gas volumetric flow rate is inadequate. One commenter (IV-D-44) cited several load measurement uncertainties regarding the use of flue gas volumetric flow rate.

One commenter (IV-D-44) informed the EPA that the ASME PTC 34 committee is evaluating use of a heat balance around the economizer (the "ECHB" method) to determine flue gas flow rate. The commenter said this method is felt to have a lower uncertainty, but it has not yet been quantified. One commenter (IV-D-103) recommended direct flue gas measurement as consistent with the requirement under 40 CFR 264.345(b)(4) under RCRA and under part 75. The commenter listed several measurement methods and said a detailed method description can be found in EPA 40 CFR 264, Part 75, and in the "Engineering Handbook for Hazardous Waste Incineration - Draft 2 of May 31, 1990".

Response: The EPA agrees that there are several possible alternative methods for monitoring MWC unit load, and that the best method may depend on site-specific conditions. With this consideration, the EPA is promulgating steam flow measurement and a water flow measurement alternative for the monitoring of MWC unit load and, as specified in the General Provisions, plants may petition the regulating authority for approval of an alternative method.

Comment: One commenter (IV-D-102) requested that the EPA clarify the CO averaging time for MWC's that are designed as

coal/RDF mixed fuel-fired units but operate as RDF-stoker units. The commenter noted that the EPA has three options (in preferred order): (1) Require the compliance averaging time based on the design of the unit (4-hour for coal/RDF mixed fuel); (2) allow the averaging time to be based on the operation of the unit (24-hour for RDF-stoker) through a federally-enforceable permit amendment, but only after the owner/operator permanently removes from the MWC unit and plant property all components or equipment that were solely constructed/installed for the burning of coal; or (3) allow the permitting authority to define the operating mode in a federally-enforceable construction or operating permit and thus define the averaging time. The commenter asserted that the first option is preferred because it simplifies enforcement and is consistent with EPA's logic with respect to determining plant capacity.

Response: The coal/RDF mixed fuel CO standard originally promulgated in 1991 and in September 1994 was intended to be applicable to pulverized coal-fired boilers that cofire fluff RDF. The CO standards promulgated after consideration of these comments are to be 150 ppmv with a 4-hour averaging time for existing and new units. It should be noted that all coal/RDF mixed fuel units that fire less than 30 percent by weight of RDF are exempt from complying with the MWC emission standards by provisions of section 129 of the Act. These units will be required to meet the applicable emission limits for coal-fired units.

Coal/RDF mixed fuel units that employ spreader stoker combustors are required to comply with the CO emission limits for RDF spreader stokers, which contain a 24-hour averaging time. When switching from RDF to coal-firing, mixed fuel units must comply with the CO, load, and PM control device temperature requirements until all RDF has been cleared from the combustor grate. When RDF has been cleared from the

combustor grate, the unit will be exempt from compliance with the MWC CO, load, and temperature requirements.

Comment: One commenter (IV-D-24) criticized the EPA for not gathering new data for CO and instead relying on the BID prepared for the 1991 standards and guidelines. The commenter claimed that this means the EPA has not complied with the requirements of section 129 of the Act.

Response: Section 129 of the Act does not require the EPA to collect new data for establishing CO levels. Section 129 requires that the control levels are established based on MACT. Currently there are few options available regarding CO control other than GCP. The CO levels determined to represent GCP in the 1991 NSPS and emission guidelines are still valid for each combustor type. The only changes that will be promulgated are clarifications for mass burn rotary refractory units, pulverized coal/RDF mixed fuel-fired combustors, and spreader stoker coal/RDF mixed fuel-fired combustors.

Comment: Four commenters (IV-D-24, IV-D-51, IV-D-74, IV-D-103) objected to a CO standard that varies by combustor type. One commenter (IV-D-24) maintained that this allows some plants to be lax in optimizing their combustion operations. Three commenters (IV-D-51, IV-D-74, IV-D-103) objected to any CO standard above 100 ppm. Two commenters (IV-D-74, IV-D-103) said it should be 100 ppm with a 4-hour average. One commenter (IV-D-51) alleged that the emphasis of the standards appears to be to minimize the release of dioxins/furans, rather than to control production of them. This commenter warned that the proposed limits do not mandate optimal burn conditions and, in effect, allow the production of high levels of dioxin. Two commenters (IV-D-74, IV-D-103) said there is a direct relationship between elevated CO and dioxin/furan formation. In support, these commenters cited an attached paper on MWI emissions and said that a test done at

the Pittsfield MWC showed that CO levels above 100 ppm were associated with higher dioxin/furan emissions. These commenters described CO as a surrogate parameter for dioxin/furan information that is a lower cost alternative to dioxin/furan testing. Another commenter (IV-D-24) who also cited the ASME New York State Energy Research and Development Authority ("NYS/ERDA") Pittsfield tests said the tests showed that CO should be measured using a short-term (1-hour) averaging time to minimize dioxin/furan formation.

Three commenters (IV-D-24, IV-D-74, IV-D-103) contended that the proposed standards penalize more efficient combustors with stricter limits and allow less efficient combustor types to operate inefficiently. They contended that the less efficient combustors are at times capable of meeting less than 50 ppm and cited tests from Stanislaus, Commerce, Marion, Baltimore, and Clairmont which showed CO levels of 19 to 49 ppm. Pigeon Point was listed at 7 ppm and Oswego was listed at less than 20 ppm. One commenter (IV-D-103) claimed there is no evidence in the background document that a good faith effort was made to investigate those operating practices which optimize combustion. Two commenters (IV-D-24, IV-D-103) said the Penobscot, Maine plant, which the EPA includes in its data base and considers an example of good combustion by an RDF plant, has no impetus to operate any more efficiently than its lax permitted level of 400 ppmv, 4-hour average. One commenter (IV-D-24) also criticized the use of data from the mid-Connecticut MWC because of questionable operating conditions.

One commenter (IV-D-103) indicated that a 4-hour averaging period is appropriate because the majority of MB/WW units have a waste retention time on the grate of up to one hour which does not provide adequate time for an operator to make a good faith effort to correct upsets and still achieve a limit representative of GCP. The commenter cited an EPA MWC

document for GCP (EPA-600/8-89-063) which indicates that the MB/WW combustors in Millbury, Maine will exceed a CO CEM emission level of 58.4 ppm once every year in a 4-hour block period.

Two commenters (IV-D-74, IV-D-103) listed five factors that contribute to high CO emissions in MWC's. Three commenters (IV-D-24, IV-D-74, IV-D-103) said the EPA's 1987 GCP guidelines stipulated that 50 ppm CO (4-hour average) with 6 to 12 percent O_2 is an indicator of good combustion.

Three commenters (IV-D-24, IV-D-74, IV-D-103) said Canada has a GCP requirement of 50 ppm CO and the Netherlands has a standard of 44 ppm (corrected from 50 mg/m^3). Two commenters (IV-D-74, IV-D-103) also cited the disparity between EPA's MWC standard and the HWI standard, which has a single limit for all new and existing incinerators. The commenters asserted that, in some cases, the combustors, control equipment, and pollutants are similar, and both MWC's and HWI's require similarly high combustion efficiency to minimize emissions. These two commenters recommended that the EPA review EPA's National Hazardous Waste Combustion Strategy and propose a similar approach which specifies high combustion efficiency.

Response: The CO concentration in the flue gas of each MWC is related to the specific combustion conditions within the unit. There are inherently different design and operating conditions between different types of MWC's. These differences and the fact that low CO emissions is a relatively new requirement results in differences in the CO emission limit that can be achieved by dissimilar MWC's.

For example, mass burn MWC's burn unprocessed waste in deep beds and the residence time of the waste within these combustors is approximately one hour. This large mass of waste burns slowly, releasing combustion gases into a rather large furnace volume. Careful metering of under and overfire air into different furnace zones by computerized distributed

control combustion systems results in stable, carefully controlled combustion conditions and low levels of CO.

Spreader stoker/RDF combustors (also called RDF stokers) burn processed waste by pneumatically injecting it through feeders in the side of the furnace where it burns in a "semi-suspension" fashion. Approximately 40 percent is burned in suspension and the remainder is burned in a thin bed on a traveling grate at the bottom of the furnace. The residence time of the RDF on the traveling grater is approximately 20 minutes and the relative burn rate of waste is higher than in mass burn combustors. In spreader stoker RDF systems, the uniformity of combustion is highly dependent on RDF feed conditions. Variations in the RDF feed rate or RDF properties can result in fluctuations in combustion conditions that result in higher CO flue gas concentrations. Minor combustion upsets with associated CO excursions can also occur from RDF feed chute or RDF feeder blockages. The frequency and severity of feed upsets is both a function of the RDF processing plant and the RDF feed system design.

Carbon monoxide emission limits for each type of combustor are established using test or operating data to determine the emission limit and averaging time which a particular type of unit can achieve. State-of-the-art mass burn waterwall MWC's have inherently stable combustion characteristics and low CO levels. A 100 ppm CO emission limit with a 4-hour averaging time has been established for these types of units. In an EPA sponsored test at a mass burn combustor in Marion County, Oregon in 1987, the combustor was subjected to a number of different operating conditions including changes to the under-to-overfire air ratio and the overfire air distribution. CO concentrations at the inlet to the unit's spray dryer never exceeded 37 ppm and emissions under normal operating conditions were typically less than 20 ppm. While the unit was not attempting to control CO, the

computerized distributed combustion control system maintained high combustion efficiency and low concentrations of CO.

Evaluation of long term emission data from other state-of-the-art mass burn waterwall facilities indicate that these types of facilities can achieve a 100 ppm CO emission limit on a 4-hour basis. In most cases these mass burn combustors will operate at long term averages of less than 50 ppm to comply with the 100 ppm (4 hour) emission limit. Experience indicates that operation at CO concentrations between 50 and 100 ppm may be required due to problems associated with the burning of wet waste.

Later in 1987, ABB Combustion Engineering began startup testing at the Mid-Connecticut Resource Recovery Facility in Hartford, Connecticut (Mid-Conn). The Mid-Conn facility contains three RDF spreader stoker combustors, each designed to fire approximately 660 tons/day of RDF. During startup, the units typically operated with flue gas CO concentrations of above 200 ppm. During a subsequent test program sponsored by EPA and Environment Canada it was found that by steady-state, CO emissions of less than 100 ppm could be achieved by proper adjustment of the under and overfire air flow. Improvements in the combustion control procedures were also made at the ABB Combustion Engineering facility in Detroit (the Greater Detroit Resource Recovery Authority Facility) which finished construction shortly after the Mid-Conn Facility. A statistical evaluation of CO emission data from the Detroit facility indicated that although it could achieve average long-term CO emissions of 70 to 80 ppm, it could only achieve an emission limit of 150 ppm on a 24-hour basis due to CO excursions associated with feed upsets.

The NSPS for RDF spreader stoker combustors promulgated in 1991 incorporated a 150 ppm emission limit and a 24-hour averaging time. However, the available data for RDF combustors indicate that they will have to limit long-term

average CO emissions to the range of 70 to 80 ppm to compensate for feed upsets.

Carbon monoxide emissions from some types of commercially operating MWC's are substantially higher than for modular and mass burn units because until recently, attempts have not been made to minimize CO emissions. In some cases, emission limits of other types of combustors are higher than mass burn combustors because of a lack of data showing they are capable of achieving emission limits of less than 200 to 250 ppm.

The 4-hour CO emission averaging time is roughly the time period required for a dioxin/furan emissions test. It is also a reasonable minimum averaging period for combustors with relatively stable operating conditions. A 24-hour averaging period is needed for combustors that are prone to combustion upsets.

The 4-hour averaging periods for steam load and PM control device inlet temperature are consistent with the time period necessary to conduct a dioxin test. Data from EPA sponsored field tests have shown that compliance with a 4-hour steam load limit and a 4-hour PM control device temperature can be readily achieved in modern MWC's.

Comment: Three commenters (IV-D-24, IV-D-103, IV-D-108) asserted that a 4-hour CO standard alone is insufficient to ensure good combustion. One commenter (IV-D-24) suggested that a 6 to 12 percent O_2 standard be promulgated in addition to the CO standard. One commenter (IV-D-108) stated that in order to minimize products of incomplete combustion, shorter term criteria for temperature and O_2 should be specified. The commenter noted that O_2 and temperature are directly related to combustion efficiency and are routinely monitored. This commenter recommended that for MB/WW combustors, the EPA should require that the exit flue gas meet a minimum 5-minute O_2 concentration of 3.5 percent on a wet basis and 3.0 percent on a dry basis. The commenter noted that this recommendation

was based on analysis of CEM data for three plants and with the input of the plant operators.

Two commenters (IV-D-103, IV-D-108) also recommended that minimum furnace temperature during waste combustion, after overfire air, be specified. The commenters also suggested requirements for controls such as automatic auxiliary burners that will fire at preset temperatures to ensure that minimum temperature is maintained at all times including startup and when wet waste is being combusted. One commenter (IV-D-108) contended that this minimizes emissions of combustible pollutants, some of which are not continuously monitored, such as dioxins/furans. The commenter (IV-D-108) recommended the following limits for MB/WW combustors: a minimum 1-minute average temperature of 1,500 ^{O}F for a 1 second residence time after overfire air injection, with auxiliary burners automatically fired at 1,550 to 1,600 ^{O}F. The commenter noted that New Jersey has successfully implemented this requirement for five operating MWC's. One commenter (IV-D-103) recommended a residence time for combustion gas of at least 1 second at no less than 1,800 ^{O}F. This commenter (IV-D-103) also recommended that control equipment for HCl reduction must be designed such that the flue gas temperature at the outlet from the control device does not exceed 300 ^{O}F, unless a demonstration is made that an equivalent collection of condensible heavy metals and toxic organics can be achieved at a higher outlet temperature or through the use of alternate technologies.

Response: Good combustion practices were developed by the EPA to minimize both formation and emission of dioxins/furans and other trace organics. There are three components to GCP: a CO emission limit, a load limit, and a temperature at the inlet of the PM control device. All three of these continuous compliance parameters have been shown to correlate with either formation or emission of dioxins/furans.

Low CO level is a surrogate parameter used to indicate the operation at combustion conditions conducive to the furnace destruction of trace organics. The load limit is used to control excessive entrainment PM (PM carryover) which can lead to formation of dioxins/furans downstream of the combustor. The PM control device inlet temperature limit is to limit formation of dioxins/furans on fly ash within the PM control device by controlling formation rates. Peak formation rates occur near 300 ^{o}C (570 ^{o}F) and decrease with decreasing temperatures. Below about 225 to 250 ^{o}C (435-480 ^{o}F) the formation rates are negligible. The temperature limit also controls partitioning of dioxin/furan between the solid and vapor phases. At lower temperatures, dioxins/furans remain absorbed on PM and are disposed with the collected fly ash. There is no evidence that dioxins/furans absorbed on fly ash can be volatilized at ambient temperatures nor leached in landfills.

The EPA spend a substantial amount of resources investigating, developing, and documenting GCP. The EPA's first effort resulted in a report on the combustion control of organics (Municipal Waste Combustion Study: Combustion Control of Organics, EPA/530-SW-87-021c, June 1987). This report on the control of organics contained tables summarizing recommendations for good combustion practices to control organic emissions from mass burn, RDF, and modular starved-air MWC's. Recommendations were included for a combustion temperature of 980 ^{o}C (1800 ^{o}F) at fully mixed conditions, a 50 ppm CO emission limit, a range of flue gas O_2 concentrations for each combustor, the use of overfire air for mixing, turndown restrictions, and the use of auxiliary fuel to correct for low temperatures or high CO.

In reviewing these recommendations, it was decided that only three parameters would be required to demonstrate continuous compliance with GCP. These include a CO emission

limit to insure operation at combustion conditions which are indicative of the furnace destruction of organics, a load limit which is to control the amounts of PM which are carried out of the combustor with flue gases, and a temperature limit at the inlet of each PM control device to control formation of CDD/CDF within each control device.

Comment: Five commenters (IV-D-24, IV-D-28, IV-D-54, IV-D-80, IV-D-95) supported the monitoring and control of APCD inlet temperature. Three commenters (IV-D-28, IV-D-80, IV-D-95) supported the proposed requirement of a maximum inlet temperature, determined during the most recent dioxin/furan test, which cannot be exceeded by more than 30 ^{o}F, but urged the EPA to adopt a longer averaging period of 8 to 12 hours so that reasonable variability does not result in an excursion.

One commenter (IV-D-24) maintained that a standard for combustor flue gas temperature should be promulgated as part of good combustion practices. The commenter (IV-D-24) pointed out the importance of flue gas temperature based on the EPA's 1989 test program at the Montgomery Dayton South MWC. In a detailed discussion, the commenter claimed that the study showed that minor changes in design and operation had a significant effect on emissions of dioxin and other pollutants. The commenter (IV-D-24) acknowledged that some vendors claim that lower temperatures cause corrosion and operating problems, but argued that these problems can be avoided by proper design and operation.

Response: The maximum PM control device inlet temperature is selected by taking the highest average PM control device inlet temperature measured during any one of three successful performance test runs for dioxins/furans and by adding 17 ^{o}C (30 ^{o}F). The averaging time for the PM control device inlet temperature limit must be consistent with the averaging time for a single dioxin/furan performance test (approximately 4 hours). If an 8-hour averaging time was

allowed for the inlet temperature, then a unit could theoretically operate for 4 hours at temperatures above those shown to be safe by the dioxin/furan performance tests.

The PM control device inlet temperature requirements help ensure that conditions for high dioxin/furan formation rates do not occur. The temperature at which low dioxin/furan emissions is achieved may differ between MWC units, and the requirements take that into account. Therefore, there is no need for a specific flue gas temperature requirement.

Comment: One commenter (IV-D-24) supported EPA's efforts to strengthen operator certification and training. The commenter recommended the following six improvements to the proposed requirements: (1) Limit the frequency and period of time that control room operators can fill in for chief facility operators and shift supervisors; (2) require that recertification exams be passed every 5 years (on new technologies and regulations); (3) to prevent the current potential conflicts of interest, require that no employee of a firm that has designed, operated, or constructed MWC's may create or be permitted access to exam questions; (4) to prevent future conflicts of interest, require that no employee of a firm that has designed, operated, or constructed the specific MWC at which an applicant is taking a site-specific exam, be permitted to sit on the examining board; (5) require applicants for operator certification to have either a technical baccalaureate degree or 60 credits in physical sciences and/or engineering at an accredited institution instead of the current requirement of a high school diploma or equivalent; and (6) require that the manual address in detail the operating conditions, such as temperature, injection rates, etc.

Response: The EPA appreciates the commenter's support for operator training and certification. While the EPA acknowledges the commenter's suggested revisions to the

proposed requirements, they will not be incorporated into this rulemaking at this time. The certification and training requirements of the rule are adequate to assure that properly trained personnel are operating the plants. Additional prescriptive requirements would limit case-by-case flexibility and are not necessary to ensure proper operation. States are free to impose additional requirements if deemed necessary. Additionally, the EPA can reevaluate these requirements in subsequent reviews of the regulations.

Comment: Several commenters (IV-D-18, IV-D-28, IV-D-29, IV-D-30, IV-D-43, IV-D-44, IV-D-51, IV-D-73, IV-D-74, IV-D-85, IV-D-98, IV-D-103) agreed that operator certification and training are appropriate requirements, but disagreed with the timing, saying that the 6-month period is not adequate to fully train and schedule testing and certification. Five commenters (IV-D-51, IV-D-73, IV-D-74, IV-D-85, IV-D-103) pointed out that certification could be required before the end of 1995. The five commenters suggested that training and testing sites in numerous locations in every State will be required in order to offer all personnel sufficient opportunity to obtain training and certification. Given the number of operators that will now require training nationwide, the commenters (IV-D-28, IV-D-29, IV-D-30, IV-D-43, IV-D-85) urged the EPA to begin discussions with ASME to fully develop the training program, and indicated that a phase-in period may be needed. One commenter (IV-D-28) said the EPA should consider whether other training organizations should also be allowed to provide certification.

One commenter (IV-D-29) informed the EPA that applicants are required to document 6 months of satisfactory employment in the capacity of chief facility operator or shift supervisor as a prerequisite for full operator ASME certification. This commenter said the proposed rule is not clear whether an operator would be permitted to work as a chief facility

operator or shift supervisor during the period prior to becoming eligible for full certification. This commenter also pointed out that the site specific examination is conducted by a three-member ASME board of examiners, including one technical representative from the resource recovery industry and one representative from the regulatory authority. The commenter indicated that lead times of 6 months are often necessary for the scheduling of exams.

Two commenters (IV-D-43, IV-D-44) suggested that a 2-year period for certification is more reasonable given the current state of the ASME certification program. One commenter (IV-D-85) said that 3 years is more appropriate, and an extension provision should be provided if delays result from the hazards of developing a new certification process.

Response: The EPA has discussed the issue of certification with ASME and agrees that the proposed schedule is unrealistic given the limited ASME resources for testing all those who require full certification. Because provisional certification is required by ASME as the first step in attaining full certification, the requirements are being revised such that all chief facility operators and shift supervisors have 1 year from promulgation or 6 months after startup to become provisionally certified by ASME (or State-approved equivalent). Also within the first year after promulgation or 6 months after startup, all chief facility operators and shift supervisors must complete or become registered to take the ASME (or State-approved equivalent) full certification exam. These changes will ensure that all operators are, at a minimum, provisionally certified and are scheduled to be fully certified as soon as can be accommodated by ASME (or State-approved equivalent).

Comment: Five commenters (IV-D-51, IV-D-73, IV-D-74, IV-D-98, IV-D-103) agreed that operator certification and training are appropriate requirements, but requested that the

sections be clarified. Four commenters (IV-D-51, IV-D-73, IV-D-74, IV-D-103) requested guidance on what constitutes an equivalent State certification program, how a State should have its program reviewed for equivalency, and whether equivalent certification is transferrable from State to State. The current language is also not clear on whether the EPA is assuming any training and certification responsibility other than reviewing the equivalency of State programs. One commenter (IV-D-98) said the EPA should clarify its assessment of the ASME program so States that have already adopted it can implement it without hesitation. This commenter said that mandatory EPA training should not apply to individuals who have already received ASME or State certification under pre-existing State MWC rules by the time of NSPS promulgation.

Response: A State may develop and implement a program in lieu of the ASME certification program. It is up to each State to determine what constitutes an equivalent program. ASME certification is transferrable from State to State in accordance with ASME's guidelines. A State's certification is only good within the State of issue.

If a chief facility operator, shift supervisor, or control room operator has already received full ASME certification by the time the NSPS and emission guidelines are promulgated, the EPA operator training is not required. Training based on the site-specific manual is still required.

Comment: Two commenters (IV-D-51, IV-D-74) said no minimum criteria were provided for the mandated site-specific manual, and if the EPA intends to use the criteria published in the 1991 MWC standards, they should be incorporated into this rule. These commenters also said it is not clear whether State approval of the specific content of training manuals is required, and warned that this would be burdensome to State and local programs. The commenters asserted that the preparation of a manual should be an enforceable part of the

permit, but neither the States nor the EPA should specify what the site-specific manual should contain, nor should the contents be subject to State and public review and comment. The commenters indicated that it would not be unreasonable to require that plant operators certify that each affected employee has been adequately trained using the manual. One commenter (IV-D-73) said the manual and its updates should be reviewed and approved by the State or local agency, but should not be required as part of a permit application until after the training and certification programs are in place.

Response: The contents of the site-specific manual will not be subject to EPA review or approval; however, each plant must develop a manual, make it readily available onsite, and document that the appropriate personnel have been trained with the manual. Twelve criteria for the manual were listed in the proposed regulations under § 60.54b(d). States are free to impose additional criteria or requirements for content review as deemed necessary.

Comment: Five commenters (IV-D-30, IV-D-51, IV-D-73, IV-D-74, IV-D-120) indicated that the training manual guidance is not clear. One commenter (IV-D-30) questioned whether the EPA has a training program or an official training manual. The commenter said that a copy of the EPA manual was made available to the ASME "SWPD" but was not generally available for release. The commenter (IV-D-30) also expressed concern, after reviewing the "Municipal Waste Combustor Operator Training Program" (EPA-453/B-93-020), that EPA's program does not meet the requirements of the ASME "QRO" certification process and recommended several ways that it could be modified.

Response: There are three separate training requirements in this rule. The first is the ASME QRO-1 provisional and full operator certification (or equivalent State certification) for chief facility operators and shift

supervisors. The second is the EPA municipal waste combustor operator training program (or equivalent State training course) for chief facility operators, shift supervisors, and control room operators. The third is the training established by each site to review the site-specific operating manual for personnel including chief facility operators, shift supervisors, control room operators, ash handlers, maintenance personnel, and crane/load handlers.

The EPA operator training program was published in 1993 and has been distributed to ASME and the States as a model program that States may adopt or use as a guide for their own general training courses. Copies of the training program manuals are available through National Technical Information Services (NTIS). The EPA "Municipal Waste Combustor Operator Training Program" (course manual EPA-453/B-93-020 and instructor's guide EPA-453/B-93-021) is not intended to be equivalent to ASME's QRO-1 certification. It is general training in MWC operations for personnel responsible for operating an MWC plant, and will help prepare personnel for the ASME (or State-equivalent) certification.

Comment: One commenter (IV-D-85) said that operators of incinerators without heat recovery would be at a severe disadvantage and would have difficulty getting certified because the current draft certification exam includes numerous questions concerning safe operation of steam systems and turbine generators. The commenter said ASME will need additional time to develop questions specific to incinerator-only plants.

Response: The ASME QRO-1 does not currently apply to refractory type MWC's. Since the ASME does not currently have a certification program for refractory type MWC's, the EPA did not require operators of such MWC's to become certified. If and when the ASME develops certification requirements for refractory type MWC's, the EPA will consider them for

incorporation into the MWC regulation. The EPA MWC operator training program and training with the site-specific manual is still required.

Comment: One commenter (IV-D-44) said it is not clear why the EPA is requiring the establishment of O_2/CO_2 relationships at plants opting to correct emissions using CO_2. The commenter stated that the uses of these data, beyond ensuring that an equitable O_2/CO_2 correlation standard exists, could lead to future difficulties for MWC operators.

Response: Some plants may now be complying with State emission regulations as referenced to 12 percent CO_2. Most likely, they will have a CO_2 monitor and a computerized data acquisition system which automatically report acid gas emissions referenced to 12 percent CO_2. Federal emission limits are expressed in terms of 7 percent O_2. To determine compliance with the Federal emission limits, the plant must determine the ratio of O_2/CO_2 to make corrections to plant data that are expressed in terms of 12 percent CO_2. During performance testing for dioxins/furans and metals, the test contractor should measure the flue gas concentration with a continuous emission monitor (CEM) for O_2. At proposal, the plant was required to perform at least three runs at full load and three runs at 50 percent load. This requirement has been revised to a minimum of three runs at the typical operating load of the unit. Comparisons between the plant CO_2 CEM and the test contractor's O_2 monitor can then be made to establish the ratio of CO_2/O_2 during the performance tests.

3.5.7 Size Categories for New Municipal Waste Combustor Plants

Comment: Three commenters (IV-D-24, IV-D-65, IV-D-103) disagreed with subcategorization based on size. One commenter (IV-D-24) stated that the EPA has failed to explain why small MWC plants have less strict standards than large MWC plants. The commenter argued that there is no technological or legal

APPENDIX C
DECEMBER, 2000 CORRESPONDENCE TO
PASCO COUNTY

Department of Environmental Protection

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RECEIVED
JAN - 3 2001
LEON BRASOWSKI

December 26, 2000

Mr. Leon Brasowski
Vice President, Permitting
Ogden Energy Group, Inc.
40 Lane Road
Fairfield, N.J. 07007-2515

Re: Title V Air Operation Permit 1010056-002-AV and Permit PSD-FL-127
Pasco County Resource Recovery Facility

Dear Mr. Brasowski:

We have carefully reviewed the materials that you submitted regarding compliance with condition A.7.3.0 Operating Temperature as it applies to the correlation and calibration of a roof thermocouple as a surrogate for combustion zone temperature at the Pasco County Resource Recovery Facility under the above referenced permits. We have a number of concerns:

1. Your transmittal letter (November 16, 2000) refers to a document entitled *Demonstration of 1800 Degree Combustion Temperature and Development of Furnace Roof Thermocouple Correlation* bearing the date May 24, 1991 and the signature and professional seal of William R. Crellin, dated November 7, 2000. The Department relies heavily upon the training, experience and integrity of professional engineers and other professional persons who supply data and calculations for permitting work. It does not appear that Mr. Crellin was licensed as a professional engineer at the time of this study, or that he was he a part of the testing team, either as a technician or as an observer.
2. The May 24, 1991 study as submitted, is flawed for a number of reasons including:
   - All the temperature measurements were made in a single traverse, always in the same aspect to the hearth and grate. No attempt was made to measure a temperature profile transverse to the hearth nor vertically from the grate to the roof.
   - The study erroneously presumes a linear temperature regression from a presumed or theoretical combustion temperature (2012 °F) to the point of measurement. It ignores data related to combustion temperatures from grate level thermocouples, which was included in the data appendices. It further ignores the temperature variations associated with zones of oxidation and reducing flame that must be present in the combustor, and which will vary considerably with the balance of underfire and overfire combustion air and air temperature.
   - The study fails to correlate steam production and varying radiation errors associated with differing steam pressure and temperature. The study was all conducted at a "normal", or "nominal" steam production rate of 90,000 to 95,0000 lb/hr.
   - The study fails to adequately describe the placement of the roof temperature thermocouples with respect to steam tubing and radiation shielding to assure reproducibility of the data after cleaning or replacing the thermocouples.
3. The Department recognizes that the temperature and dwell time factors included in the PSD and Title V permits were based on 1980's regulatory philosophies. These design and compliance criteria were based on chambered incinerator and tube kiln facilities that are quite different from the resource

recovery boilers at this facility. It is plausible that neither direct, nor surrogate combustion zone temperature may represent the most appropriate method of monitoring the performance of this facility. New EPA regulations envision a movement toward continuous monitoring of combustion rather than relying upon surrogate indicators. The use of a surrogate measurement indicator for a surrogate performance indicator, as is the case with measuring roof temperatures to imply compliance with combustion temperature, is at best only implying good combustion chemistry. In an effort to be consistent with the permitting of other municipal waste combustors, the Department will consider a request from Ogden Martin to remove these combustion zone temperature monitoring conditions, as indicators of compliance, from the current permits. The Department will require reasonable assurance that continuing compliance with all environmental regulations can be achieved by the direct monitoring or real time combustion chemistry, especially carbon monoxide, with CEMS, and by directly monitoring combustion heat through steam production.

If you wish , we can meet to discuss either of these two concerns If you have any further questions please contact William Leffler at 850 921-9522 or Scott Sheplak at 850 921 9532.

Sincerely,

C. H. Fancy, P.E.
Chief
Bureau of Air Regulation

cc:
Scott Sheplak Administrator. Title V Section
Bill Thomas P.E., SED
A. Nguyn SED
William R. Crellin

APPENDIX D
EPA CORRESPONDENCE ON
BERYLLIUM EMISSIONS

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

APR 06 2000

4APT-ARB

Mr. Howard L. Rhodes, Director
Department of Environmental Protection
Division of Air Resources Management
Mail Station 5500
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

SUBJ: Beryllium-Containing Wastes

Dear Mr. Rhodes:

Thank you for your correspondence, dated March 28, 2000, requesting an Environmental Protection Agency (EPA) determination regarding the applicability of the national emission standard for beryllium (40 C.F.R. part 61, subpart C) to municipal waste combustor (MWC) units subject to the emission guideline requirements of 40 C.F.R. part 60, subpart Cb. The question being addressed is whether a MWC unit is subject to the beryllium standard, because their air permit contains an emission limit for beryllium, although the unit does not accept or combust beryllium-containing wastes (as defined under subpart C).

Existing MWC units with a capacity to combust greater than 250 tons per day of municipal solid waste (MSW) are subject to 40 CFR part 60, subpart Cb (except as exempted in §60.32b). Pursuant to subpart Cb:

> "MSW" is defined as household, commercial/retail, and institutional waste. Household waste includes material discarded by single and multiple residential dwellings, hotels, motels, and other similar permanent or temporary housing establishments or facilities. Commercial/retail waste includes material discarded by stores, offices, restaurants, warehouses, nonmanufacturing activities at industrial facilities, and other similar establishments or facilities. Institutional waste includes material discarded by schools, nonmedical waste discarded by hospitals, material discarded by nonmanufacturing activities at prisons and government facilities, and material discared by similar establishments or facilities. Household, commercial/retail, and institutional waste does not include used oil, sewage sludge, wood pallets, construction, renovation and demolition wastes (including but not limited to railroad ties and telephone poles), clean wood, industrial process or manufacturing waste, medical waste, or motor vehicles (including motor vehicle parts or vehicle fluff). Household, commercial/retail, and institutional wastes include yard waste, refuse-derived fuel, and motor vehicle maintenance materials limited to vehicle batteries and tires (as specified in the rule).

"MWC units" are defined as any setting or equipment that combusts solid, liquid, or gasified MSW including but not limited to, field-erected incinerators (with or without heat recovery), modular incinerators (starved-air or excess-air), boilers (i.e., steam generating units), furnaces (whether suspension-fired, grate-fired, mass-fired, air curtain incinerators, or fluidized bed-fired), and pyrolysis/combustion units. MWC units do not include pyrolysis/combustion units located at a plastics/rubber recycling units, cement kilns firing MSW, or internal combustion engines, gas turbines, or other combustion devices that combust landfill gases collected by landfill gas collection systems.

The provisions of 40 C.F.R. part 61, subpart C, are applicable to extraction plants, ceramic plants, foundries, incinerators, and propellant plants which process beryllium ore, beryllium, beryllium oxide, beryllium alloys, or beryllium-containing waste. Beryllium-containing waste is defined as material contaminated with beryllium and/or beryllium compounds used or generated during any process or operation performed by a source subject to subpart C. For this standard, an incinerator means any furnace used in the process of burning waste for the primary purpose of reducing the volume of the waste by removing combustible matter.

EPA addressed the issue at question in July 16, 1979, correspondence from the Division of Stationary Source Enforcement to EPA Region II regarding the definition of beryllium-containing waste in §61.31 (see Enclosure). According to this determination, beryllium-containing waste does not include materials such as scrap metals and calculators which may be burned at municipal waste incinerators. Beryllium-containing wastes only include wastes generated at ceramic plants, extraction plants, foundries, and propellant plants. However, should any of these wastes be disposed of at a municipal waste incinerator, that incinerator would be subject to the subpart C beryllium regulations. This same conclusion would also apply to MWC units; they would not be subject to subpart C requirements unless the unit combusted beryllium-containing waste from a subpart C affected facility.

Thank you for the opportunity to assist in this determination. If you have any questions, please contact Mr. Scott Davis of the EPA Region 4 staff at (404) 562-9127.

Sincerely,

R. Douglas Neeley
Chief
Air and Radiation Technology Branch
Air, Pesticides and Toxics
Management Division

Enclosure

cc: Don Elias, RTP Environmental Associates
Walt Stevenson, OAQPS
Debbie Thomas, OECA

Determination Detail

Control Number: ZC012

Category: NESHAP
EPA Office: DSSE
Date: 07/16/1979
Title: Beryllium Containing Wastes
Recipient: Dvorkin, Stephen A.
Author: Reich, Edward E.
Comments:

Abstract:

Does the term "beryllium containing wastes" include materials such as scrap metals and discarded electronic calculators which may be burned in municipal incinerators?

The term beryllium containing wastes includes only those wastes generated by a foundry, extraction plant, ceramic plant, or propellant plant.

Letter:

Control Number: ZC12

July 16, 1979

MEMORANDUM

SUBJECT: Beryllium Regulations

FROM: Director
Division of Stationary Source Enforcement

TO: Stephen A. Dvorkin, Chief
General Enforcement Branch
Region II

This is a response to your memo of May 10, 1979, in which you requested a determination regarding the applicability of the beryllium standard to municipal incinerators. Basically, you asked whether the term "beryllium containing waste", as defined in •61.31(g) of the regulations, includes materials such as discarded electronic calculators and scrap metals which may be burned in municipal incinerators or whether it includes only those beryllium wastes generated at ceramic plants, extraction plants, foundries, and propellant plants.

I interpret the term "beryllium containing waste", defined as:

"material contaminated with beryllium and/or beryllium compounds used or generated during any process or operation performed by a source subject to this subpart"

to include only those wastes generated by a foundry, extraction plant, ceramic plant or propellant plant. While one might argue that incinerators are also "sources subject to this subpart" (see above definition) and that any beryllium wastes that contain beryllium which are burned in any incinerator should be subject to the standard, the control techniques and background documents do not support such an interpretation.

Section 3.6 of the document entitled "Control Techniques for Beryllium Air Pollutants" (February 1973) contains a discussion of methods for disposal of beryllium containing wastes. The document clearly indicates that it was the incineration of wastes generated by extraction plants, ceramic plants, propellant plants and foundries that we were concerned about in developing the standard. Moreover, the Economic Impact section of the document "Background Information on Development of National Emission Standards for Hazardous Air Pollutants: Asbestos, Beryllium, and Mercury" (March 1973) discusses the impact of the standard on only four industries: ceramic plants, extraction plants, propellant plants, and foundries. An assumption is made that most of the sources in those four categories will incinerate their own wastes on site. Thus, the cost of controlling emissions from beryllium incinerators seems to be taken into account in estimating the cost of the standard to the four listed source categories. This is one further indication that the standard was only intended to apply to the incineration of wastes generated at foundries, ceramic plants, extraction plants, and propellant plants. There certainly is no indication in either the preambles to the proposed and promulgated standards or any of the background documents that the standard was intended to apply to each municipal incinerator.

While most generators of "beryllium containing waste" may incinerate their wastes on site it is possible that in some cases they may transport the wastes to another facility for disposal. Should the wastes be disposed of at a municipal incinerator, that incinerator would be subject to the beryllium regulations. The regulations apply to any incinerator which burns beryllium containing wastes generated at a foundry, ceramic plant, propellant plant or extraction plant.

If the Regional Offices are not certain where beryllium containing wastes are being incinerated and whether the incineration facilities are in compliance with the NESHAP regulations, it might be desirable to request this information from the owners of beryllium waste generators via 114 letter. In this manner, a list of incinerators subject to the beryllium standard could be assembled.

Should you wish to discuss this issue further, please contact Libby Scopino of my staff at FTS 755-2564.

Edward E. Reich

cc: Simms Roy, ESED
Stu Roth, R. II, Enf.

APPENDIX E
REGULATORY CORRESPONDENCE ON CARBON PARAMETERS

Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

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

Attention: Gary K. Crane, Executive Vice President

Lake County - AP
Activated Carbon Storage Silo
Permit No. AC35-264176
Change of Conditions

Dear Mr. Crane:

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

Page 4, Specific Condition No. 3

From

3. The operation on the carbon injection system used to control mercury emissions shall be as follows:

   a. The carbon injection rate will be 11 lbs/hr. at a rate of 60-80 ft/second.

   b. The carbon grind size will be at least 95% passing through 325 mesh.

   c. The activated carbon will be pneumatically conveyed and injected into the flue gas duct near the scrubber inlet.

   d. The pressure in the carbon duct will be approximately 1.5 psig.

   e. The activated carbon along with the adsorbed mercury, dioxins and other heavy metals will be captured in the scrubber under flow and in the baghouse for disposal along with the fly ash and the bottom ash.

   f. Pursuant to Rule 62-296.416(3)(a), mercury emissions shall be limited to 70 micrograms/DSCM @ 7% O_2 or 20% by weight, of the initial flue gas mercury content.

To

3. The operation on the carbon injection system used to control mercury emissions shall be as follows:

   a. The activated carbon will be pneumatically conveyed and injected into the flue gas duct near the scrubber inlet.

   b. The activated carbon along with the adsorbed mercury, dioxins and other heavy metals will be captured in the scrubber under flow and in the baghouse for disposal along with the fly ash and the bottom ash.

   c. Pursuant to Rule 62-296.416(3)(a), mercury emissions shall be limited to 70 micrograms/DSCM @ 7% O_2 or 20%, by weight, of the initial flue gas mercury content.

Specific Condition No. 11

From

This permit will expire February 28, 2000 or six months after construction is completed, and the source is placed in operation, whichever date occurs first.

To

This permit will expire February 28, 2000 or 90 days after the deadline for the Title V application submittal date, whichever date occurs first.

All other conditions remain the same.

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

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

Vivian F. Garfein
Director of District Management

Date: September 13, 1995

VFG:jtt

APPENDIX F
JUNE 15, 1992 AMENDMENT TO
PSD-FL-113 (AC35-115379) FOR
NONHAZARDOUS SOLID WASTE
CONTAMINATED WITH OIL

12.1.15

cc: B. Bahour
L. Brazauskis
J. Gornic
K. Garrett
K. Stapsus
T. Klett File: Lake 5.1 PSD Permit
D. Lehman
R. Orlansky

Department of
Environmental Protection

Lawton Chiles
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Virginia B. Wetherell
Secretary

7/11

June 15, 1995

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Brian Bahour
Assistant Vice President
Environmental Quality Management
Ogden Martin Systems, Inc.
40 Lane Road, CN 2615
Fairfield, New Jersey 07007-2615

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

Dear Mr. Bahour:

On March 20, 1995, the Department received your request for an amendment of the referenced permit to allow firing of non-hazardous solid waste contaminated with virgin or used oil products. The Department finds this request acceptable and hereby amends the permit as shown below:

NEW SPECIFIC CONDITION 1.e.1.:

1.e.1. The firing of non-hazardous solid waste contaminated with virgin or used oil products shall be allowed if the following conditions are met:

A. The maximum percentage of oil-contaminated solid waste defined as oil spill cleanup debris and absorbing media, including oil filters, fired in the MWC shall be twenty (20) percent by weight of the total solid waste input, based on a rolling 30-day average. All "used oil" shall comply with the definition stated in 40 CFR 260.10 and shall not exceed the specification levels for arsenic, cadmium, chromium, lead, and total halogens contained in Table 1 of 40 CFR 279.11, or contain any hazardous waste as defined in 40 CFR 261.3. The used oil shall have a polychlorinated biphenyl (PCB) content of less than 50 ppm (wt.).

B. Records shall be maintained showing the oil-contaminated waste generator's written certification that the waste is non-hazardous. Documentation requirements shall include a written description of the waste, a material characterization form (sample submitted with application), and the applicable material safety data sheets for the waste components. Tonnages of oil-contaminated solid waste fired shall be recorded and made available for inspection by the Department. These records shall be maintained for a period of two years.

C. Quantities of used oil not commingled with solid waste may be burned provided that the oil has been generated entirely from internal operations of the OMS-Lake facility (i.e. no used oil in liquid form from outside generators). Records shall be maintained showing the tonnages of internally-generated used oil fired.

D. The permittee shall comply with all applicable requirements of federal, state and local regulations including 40 CFR 261 (Federal Hazardous Waste Regulations), 40 CFR 279 (Federal Used Oil Management), Chapter 62-701, F.A.C. (Solid Waste Management Facilities), Chapter 62-710, F.A.C. (Used Oil Management Regulations), Chapter 62-730, F.A.C. (Hazardous Waste Regulations).

A copy of this amendment letter shall be attached to and shall become a part of Air Construction Permit AC 35-115379 (PSD-FL-113).

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

For
Virginia B. Wetherell, Secretary

CERTIFICATE OF SERVICE

This is to certify that this Permit Amendment and all copies were mailed to the listed persons before the close of business on April 28, 1995.

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

Kim Joben 6-22-95
(Clerk) (Date)

cc: C. Collins, CD
J. Harper, EPA
J. Bunyak, NPS
Lake County Board of County Commissioners