In the Matter of an
Application for Permit by:

Mr. Timothy J. Salopek, President
Omni Waste of Osceola County, LLC
100 Church Street
Kissimmee, Florida 34741

DEP File No. 0970079-001-AC
Oak Hammock Disposal Facility
Osceola County

Enclosed is the Final Permit Number 0970079-001-AC to construct Phase I of the Oak Hammock Disposal facility. This Phase includes four (4) landfill cells with up to two flares covering a total footprint of approximately 53 acres and ancillary facilities supporting the operation of the landfill. The facility is located in Osceola County, Florida. This permit is issued pursuant to Chapter 403, Florida Statutes.

Any party to this order (permit) has the right to seek judicial review of the permit pursuant to Section 120.68, F.S., by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Legal Office; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 (thirty) days from the date this Notice is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

Trina L. Vielhauer

Trina L. Vielhauer, Chief
Bureau of Air Regulation

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF FINAL PERMIT (including the FINAL permit) was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 4/11/03 to the person(s) listed:

Timothy J. Salopek, Omni Waste of Osceola County*
Kenneth W. Cargill, P.E., GeoSyntec Consultants
Kay Prince, EPA
John Bunyak, NPS
Len Kozlov, CFD

Clerk Stamp

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

Victoria Gibson / April 11, 2003
(Clerk) (Date)

SENDER: *COMPLETE THIS SECTION*

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
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1. Article Addressed to:

Mr. Timothy J. Salopek
President
Omni Waste of Osceola County, LLC
100 Church Street
Kissimmee, FL 34741

COMPLETE THIS SECTION ON DELIVERY

A. Received by *(Please Print Clearly)*: BJones
B. Date of Delivery: 4-15-03
C. Signature: X BJones ☐ Agent ☐ Addressee
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PS Form 3811, July 1999 Domestic Return Receipt 102595-00-M-0952

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Street, Apt. No., or PO Box No.: 100 Church Street
City, State, ZIP+4: Kissimmee, FL 34741

PS Form 3800, January 2001 See Reverse for Instructions

Forbes' Theory

- Forbe's theory states that, "*The time gap between the rear of the lead vehicle and the front of the following vehicle should always be equal to or greater than the reaction time.*"

Orlando Sentinel

Published Daily

RECEIVED

MAR 31 2003

BUREAU OF AIR REGULATION

State of Florida } S.S.
COUNTY OF ORANGE }

Before the undersigned authority personally appeared Linda Bridgewater, who on oath says that he/she is the Legal Advertising Representative of Orlando Sentinel, a daily newspaper published at KISSIMMEE in OSCEOLA County, Florida; that the attached copy of advertisement, being a PUBLIC NOTICE OF I in the matter of DEP File # 0970070-001-AC in the OSCEOLA Court, was published in said newspaper in the issue; of 03/22/03

Affiant further says that the said Orlando Sentinel is a newspaper published at KISSIMMEE, in said OSCEOLA County, Florida, and that the said newspaper has heretofore been continuously published in said OSCEOLA County, Florida, each Week Day and has been entered as second-class mail matter at the post office in KISSIMMEE in said OSCEOLA County, Florida, for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that he/she has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.

Linda Bridgewater

The foregoing instrument was acknowledged before me this 26th day of March, 2003, by Linda Bridgewater, who is personally known to me and who did take an oath.

(SEAL)

OFFICIAL NOTARY SEAL
JULIA NICHOLS
NOTARY PUBLIC STATE OF FLORIDA
COMMISSION NO. DD054311
MY COMMISSION EXP. SEPT 23,2005

PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL PROTECTION

DEP File No. 0970079- 001-AC

Omni Waste of Osceola County, LLC
Oak Hammond Disposal facility
Osceola County

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit to Omni Waste of Osceola County for construction of a solid waste disposal facility west of Highway 441, approximately 6.5 miles south of Holopaw. A determination of Best Available Control Technology pursuant to Rule 62-212.400, F.A.C. was not required at this time. The applicant's name and address are: Omni Waste of Osceola County, LLC, 100 Church Street, Kissimmee, Florida, 34741.

The proposed project, known as the Oak Hammock Disposal Facility, will be developed in six different phases on a site comprising 2179 acres. This air construction permit is for Phase I, which includes four landfill cells covering an area of approximately 53 acres, two flares, and ancillary facilities. The complete build-out of the facility includes 21 landfill cells covering an area of approximately 264 acres and four flares.

The average solid waste disposal rate over the projected 30-year life of the facility is estimated at roughly 1,650 tons per day (TPD) with a maximum rate of 4,000 TPD. The ultimate height of the landfill will be roughly 100 feet above ground level.

A gas extraction and control system (GECS) including the flares will be installed and will function as early as the third year of operation. The GECS will collect approximately 75 percent of the gases evolved during the decomposition of the waste and will reduce emissions of non-methane hydrocarbons (NMOC) and minimize odor. The same GECS and flares will insure compliance with applicable Standards of Performance for Municipal Solid Waste Landfills and the National Emission Standards for Hazardous Air Pollutants from Municipal Solid Waste Landfills.

The proposed permit requires Omni Waste to regularly submit emissions estimates to the Department and to submit an application for a construction permit for each subsequent phase. Depending on projected emissions, the applications for subsequent phases may require a review under the Department's Rules for the Prevention of Significant Deterioration of Air Quality (PSD) and BACT at Rule 62-212.400.

The Department will issue the FINAL Permit, in accordance with the conditions of the DRAFT Permit, unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments concerning the proposed permit issuance action for a period of 14 (fourteen) days from the date of publication of this Public Notice of Intent to Issue Air Construction Permit. Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuont to sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below. Mediation is not available in this proceeding.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under sections 120.569 and 120.57 of the Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under section 120.60(3) of the Florida Statutes must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under section 120.60(3), however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under sections 120.569 and 120.57 F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205 of the Florida Administrative Code.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

A complete project file is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Department of Environmental Protection
Bureau of Air Regulation
111 S. Magnolia Drive, Suite 4
Tallahassee, Florida 32301
Telephone: 850/488-0114
Fax: 850/922-6979

Department of Environmental Protection
Central District Office
3319 Maguire Boulevard, Suite 232

Orlando, Florida 32803-3767
Telephone: 407/894-7555
Fax: 407/897-2966

The complete project file includes the application, technical evaluations, Draft Permit, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Program Administrator, New Resource Review Section at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 850/488-0114, for additional information. Key documents may also be viewed at www.dep.state.fl.us/air/permitting/construct.htm

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1. Article Addressed to:

Mr. Timothy J. Salopek
President
Omni Waste of Osceola County, LLC
100 Church Street
Kissimmee, FL 34741

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X B Jones ☐ Agent ☐ Addressee

B. Received by *(Printed Name)* B Jones
C. Date of Delivery 3-17-03

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

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☒ Certified Mail ☐ Express Mail
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4. Restricted Delivery? *(Extra Fee)* ☐ Yes

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PS Form 3811, August 2001 Domestic Return Receipt 102595-02-M-1540

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Total Postage & Fees	$

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Sent To
Timothy J. Salopek
Street, Apt. No.; or PO Box No.
100 Church Street
City, State, ZIP+4
Kissimmee, FL 34741

PS Form 3800, January 2001 See Reverse for Instructions

7001 0320 0001 3692 6822

Forbes' Theory

$$h_{MIN} = \Delta t + \frac{L}{u}$$

- Assuming reaction time=1.5sec, L=20ft.

$$h_{MIN} = 1.5 + \frac{20}{u} \qquad d_{MIN} = 1.5u + 20$$

LAYOUT OF OAK HAMMOCK DISPOSAL FACILITY

LEGEND

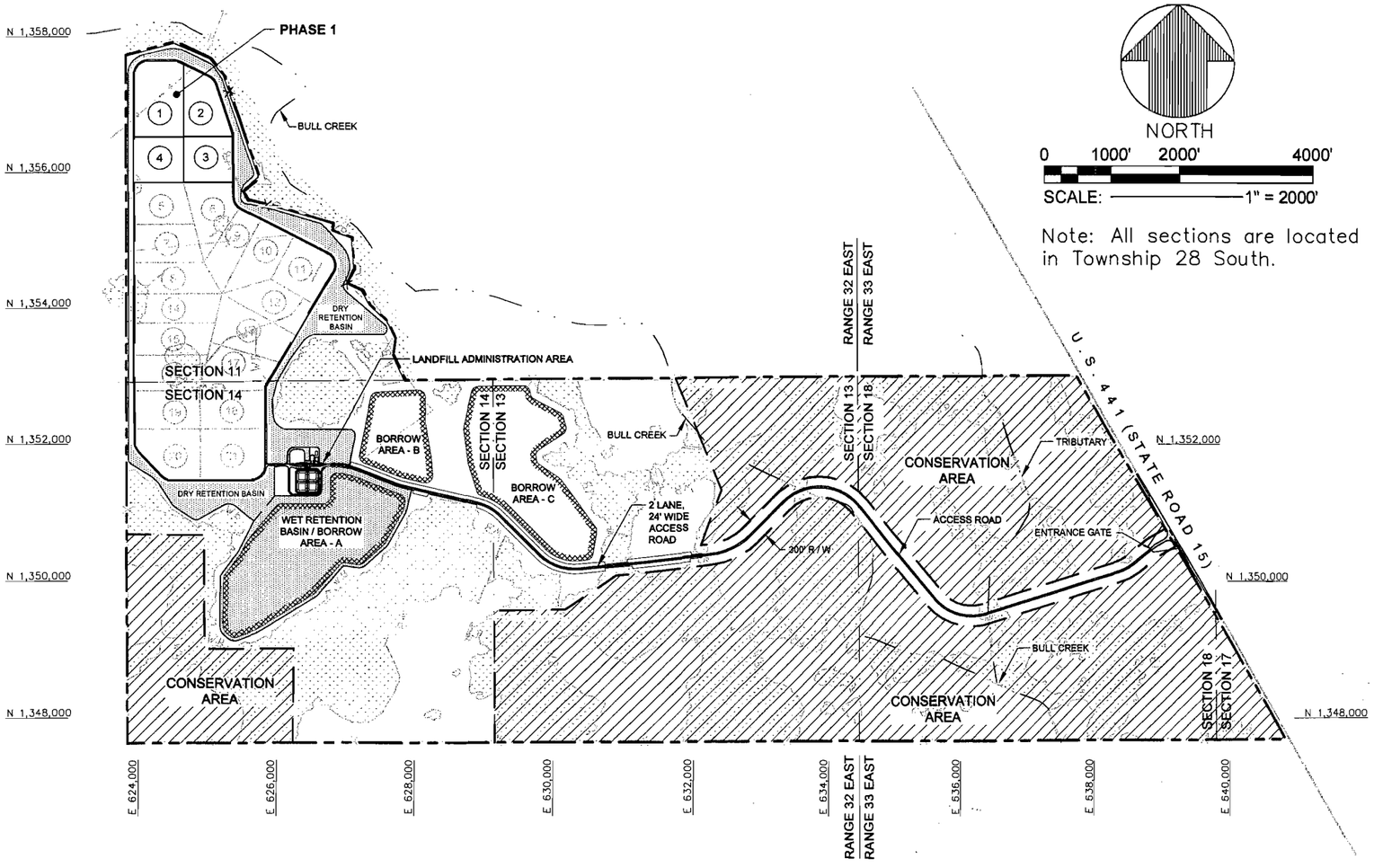
- PROPERTY BOUNDARY
- WETLAND
- (2) LANDFILL CELL NUMBER
- STORMWATER MANAGEMENT AREA
- BORROW AREA BOUNDARY
- CONSERVATION AREA

PROPERTY DESCRIPTION

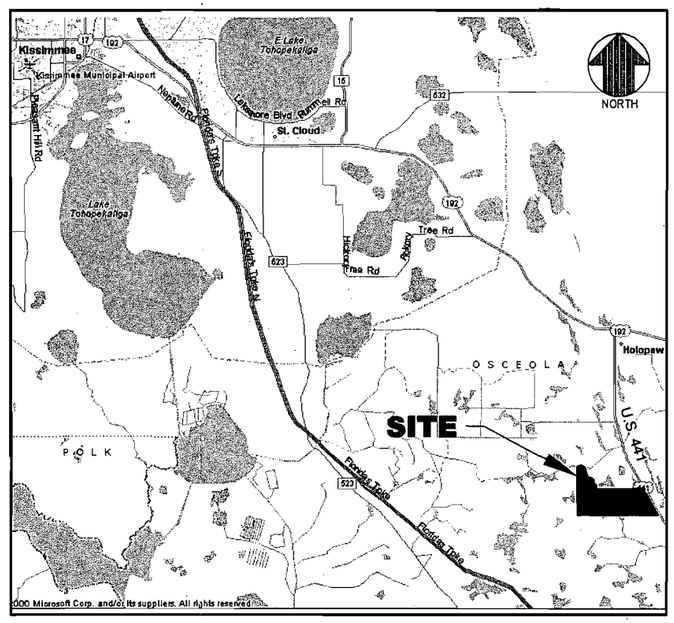
Sections 13 and 14 and portion of Section 11 west of Bull Creek in Township 28 South, Range 32 East.

Portions of Sections 17 and 18 west of Highway 441 (State Road No. 15) in Township 28 South, Range 33 East.

Entire site lies in Osceola County, Florida.



Note: All sections are located in Township 28 South.



AREA MAP

0 1 2 3 6

SCALE: 1" = 6 MILES

omni Waste of Osceola County LLC

OAK HAMMOCK DISPOSAL FACILITY
OSCEOLA COUNTY, FLORIDA

GeoSyntec Consultants
TAMPA, FLORIDA

PROJECT NO.	FW0400	FIGURE NO.	1
DATE.	29 JAN 03	FILE NO.	0400F1015

FINAL DETERMINATION
Omni Waste of Osceola County
Oak Hammond Disposal Facility
Phase I Landfill Project

The Department distributed a public notice package on March 14, 2003 for the project to construct Phase I of the Oak Hammock Disposal facility in Osceola County. This Phase includes four (4) landfill cells with two flares covering a total footprint of approximately 53 acres and ancillary facilities supporting the operation of the landfill. The Public Notice of Intent to Issue was published in the Orlando Sentinel on March 22, 2003.

No comments were received by the Department from the public, EPA or any other government agency. Comments were received from GeoSyntec Consultants on behalf of the applicant. These comments, to clarify some of the specific conditions language, are keyed to the TEPD, and draft permit contained therein.

Department's revisions and clarifications are included in each comment as follows:

Cover Page
For the construction and initial development of a Class I landfill consisting of four cells, a gas collection and extraction system (GCES), ~~two flares~~ **up to two flares**, and ancillary equipment at the Oak Hammock Disposal facility (Phase I).

Subsection A. Facility Description
Future phases not covered by this permit consist of ~~21~~ **17 additional** landfill cells, a larger GECS, **additional flares up to a total of** four flares, and ancillary equipment on approximately 264 acres. At ultimate build-out, the site will contain approximately 23.7 million cubic yards of waste and initial cover material and will reach a height of approximately 100 feet above local ground level.

Section III - Specific Condition # 4, Page 8 of 10
Gas Extraction and Collection System (GECS): The GECS and **at least one but no more than two** flares (or energy recovery device such as engines) shall be installed and operational by the time 2,750,000 tons of waste have been disposed in the landfill or annual emissions of non-methane hydrocarbons (NMOC) are greater than or equal to 50 tons per year.

Section III - Specific Condition # 6, Page 9 of 10
Visible Emissions: Compliance with the visible emissions standard shall be determined using EPA Method 22 and shall be for the duration of 2 hours. Such tests shall be conducted within 60 days of completion of construction and initial startup operation, and annually thereafter. The required visible emissions test report shall also contain the ~~extraction wells~~ **flare** gas flow rate and ~~the flare~~ temperature data.

Section III - Specific Condition # 13, Page 10 of 10
Continuous Monitoring: Proper devices for the continuous monitoring and recording of the total gas flow rate ~~from all extraction wells~~, and ~~each flare~~ flame temperature **at each flare**, shall be installed prior to the collection and disposal of the active landfill gases. Such devices shall be properly calibrated and maintained at all times, according to manufacturers' written instructions.
[Rule 62-4.070 (3) F.A.C., **40 CFR 60, Subpart WWW**]

Section II- Specific Condition 8, Page 4 of 10:

Reference to the Southeast District office in this condition were changed to **Central** District office.

The final agency action is to issue the permit with the changes noted before.

Department of Environmental Protection

Jeb Bush
Governor

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

David B. Struhs
Secretary

PERMITTEE:

Omni Waste of Osceola County
100 Church Street
Kissimmee, Florida 34701

Authorized Representative:
Timothy J. Salopek, President

Facility Id.	0970079
DEP Permit No.	0970079-001-AC
Project	Municipal Solid Waste Class I Landfill with two Flare Systems
SIC No.	4953
Expires:	April 30, 2006

PROJECT AND LOCATION:

For the construction and initial development of a Class I landfill consisting of four cells, a gas collection and extraction system (GCES), up to two flares, and ancillary equipment at the Oak Hammock Disposal facility (Phase I).

The facility is located approximately 6.5 miles south of Holopaw on Highway U.S 441 in Osceola County, Florida.

The UTM coordinates are: Zone 17; 190.4 km E and 4131.5 km N.

STATEMENT OF BASIS:

This construction permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.). The above named permittee is authorized to construct the facility in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department of Environmental Protection (Department).

ATTACHED APPENDICES MADE A PART OF THIS PERMIT:

Appendix GC	Construction Permit General Conditions
Appendix FL	40 CFR 60.18, General Control Device Requirements (Flares)
Appendix AAAA	40 CFR 63, NESHAP (Municipal Solid Waste Landfill)
Appendix WWW	40 CFR 60, NSPS (Standards of Performance for Municipal Solid Waste Landfills)

Howard L. Rhodes, Director
Division of Air Resources Management

SUBSECTION A. FACILITY DESCRIPTION

The project is a municipal solid waste landfill on a 2179 acre site. This permit authorizes Phase I of the project, which is the construction and initial development consisting of four landfill cells, a gas extraction and collection system (GECS), up to two flares, and ancillary equipment on approximately 53 acres.

Future phases not covered by this permit consist of 17 additional landfill cells, a larger GECS, additional flares up to a total of four flares, and ancillary equipment on approximately 264 acres. At ultimate build-out, the site will contain approximately 23.7 million cubic yards of waste and initial cover material and will reach a height of approximately 100 feet above local ground level.

Based on the application received this facility is a major (Title V) source of air pollution, an area source of hazardous air pollutants, and in subsequent phases will be a Major Facility with respect to the Rules for the Prevention of Significant Deterioration (PSD).

SUBSECTION B. EMISSION UNITS SUMMARY

Emissions Unit Number	Emissions Unit Description
001	Municipal Solid Waste Class I Landfill with gas extraction collection system
002	Phase I – Class I Landfill gas collection system Flare 1
003	Phase I – Class I Landfill gas collection system Flare 2

SUBSECTION C. RELEVANT DOCUMENTS

The documents listed below are not a part of this permit, but are relevant to this permitting action.

- Air Construction Permit Application received February 3, 2003
- Department's Technical Evaluation and Preliminary Determination dated February 26, 2003
- Department's Intent to Issue and Public Notice Information dated March 13, 2003

SUBSECTION D. PERMIT APPENDICES

The documents listed below are a part of this permit and provide necessary supplementary information applicable to this permitting action.

Appendix GC:	Construction Permit General Conditions
Appendix AAAA:	40 CFR 63, NESHAP for Municipal Solid Waste Landfill
Appendix FL:	40 CFR 60.18, General Control Device Requirements (Flares)
Appendix WWW:	40 CFR 60, Standards of Performance for Municipal Solid Waste Landfills

SUBSECTION E. REGULATORY CLASSIFICATION

This facility is classified as a Major or Title V Source of air pollution. It is also an Area Source with respect to Hazardous Air Pollutants (HAPs). During Phase I, this facility is not a Major Facility with respect to Rule 62-212.400, Prevention of Significant Deterioration (PSD). This facility is not in the list of the 28 Major Facility Categories per Table 62-212.400-1, F.A.C.

SUBSECTION F. PERMIT SCHEDULE

- 02/03/03 Received permit application; application complete
- 03/14/03 Distributed Notice of Intent to Issue permit
- 03/22/03 Notice of Intent published in the Orlando Sentinel

The following specific conditions apply to all emissions units at this facility addressed by this permit.

ADMINISTRATIVE

1. Regulating Agencies: All documents related to applications for permits to construct, operate or modify an emissions unit as well as test reports should be submitted to the Florida Department of Environmental Protection, Central District Office, Air Program Administrator, 3319 Maguire Boulevard, Suite 232, Orlando, Florida 32803-3767, phone number 407/894-7555. Copies of all documents should be sent also to the Orange County Environmental Protection Division, 800 Mercy Drive, Suite 4, Orlando, Florida 32808. Permit applications pursuant to Rule 62-212.400, F.A.C., Prevention of Significant Deterioration of Air Quality (PSD), should be submitted to the Department's Bureau of Air Regulation, 2600 Blairstone Road, MS 5505, Tallahassee, Florida 32399, phone number 850/4880114.
2. General Conditions: The owner and operator is subject to and shall operate under the attached General Permit Conditions G.1 through G.15 listed in Appendix GC of this permit. General Permit Conditions are binding and enforceable pursuant to Chapter 403 of the Florida Statutes. [Rule 62-4.160, F.A.C.]
3. Terminology: The terms used in this permit have specific meanings as defined in the corresponding chapters of the Florida Administrative Code.
4. Applicable Regulations, Forms and Application Procedures: Unless otherwise indicated in this permit, the construction and operation of the subject emissions unit shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of Chapter 403, F.S. and Florida Administrative Code Chapters 62-4, 62-210, 62-204, 62-212, 62-213, 62-296, 62-297 and the Code of Federal Regulations Title 40, Part 60 and Part 63, adopted by reference in the Florida Administrative Code (F.A.C.) regulations. The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C. and follow the application procedures in Chapter 62-4, F.A.C. Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting or regulations. [Rules 62-204.800, 62-210.300 and 62-210.900, F.A.C.]
5. New or Additional Conditions: Pursuant to Rule 62-4.080, F.A.C., for good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]
6. Expiration: This air construction permit shall expire on **April 30, 2006**. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the Department's Central District Office prior to 60 days before the expiration of the permit. [Rules 62-210.300(1), 62-4.070(4), 62-4.080, and 62-4.210, F.A.C]
7. Modifications: No emissions unit or facility subject to this permit shall be constructed or modified without obtaining an air construction permit from the Department. Such permit must be obtained prior to the beginning of construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]

8. Title V Operation Permit Required: This permit authorizes construction and/or installation of the permitted emissions unit and initial operation to determine compliance with Department rules. A Title V operation permit is required for regular operation of the permitted emissions unit. The owner or operator shall apply for a Title V operation permit within 180 days after startup and shall insure it is complete prior to the expiration of this construction permit. To apply for a Title V operation permit, the applicant shall submit the appropriate application form, compliance test results, and such additional information as the Department may by law require. The application shall be submitted to the Department's Central District office.
[Rules 62-4.030, 62-4.050, 62-4.220, and Chapter 62-213, F.A.C.]

EMISSION LIMITING STANDARDS

9. General Visible Emissions Standard: Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer, or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density if which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20% opacity). The test method for visible emissions shall be EPA Method 9, incorporated and adopted by reference in Chapter 62-297, F.A.C. Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C. [Rule 62-296.320(4)(b)1, F.A.C.]

10. General Pollutant Emission Limiting Standards: [Rule 62-296.320(2), F.A.C.]

    No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor.

    {Note: An objectionable odor is defined in Rule 62-210.200., Definitions, F.A.C., as any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance.}

OPERATIONAL REQUIREMENTS

11. Plant Operation - Problems: If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by hazard of fire, wind or by other cause, the permittee shall immediately notify the Department's district office and, if applicable, appropriate local program. The notification shall include pertinent information as to the cause of the problem, and what steps are being taken to correct the problem and to prevent its recurrence, and where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with Department rules.
[Rule 62-4.130, F.A.C.]

12. Circumvention: No person shall circumvent any air pollution control device or allow the emission of air pollutants without the applicable air pollution control device operating properly.
[Rule 62-210.650, F.A.C.]

13. Excess Emissions:

    (a) Excess emissions resulting from start-up, shutdown or malfunction of any emissions units shall be permitted providing (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.
    [Rule 62-210.700(1), F.A.C.]

(b) Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during start-up, shutdown, or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]

COMPLIANCE MONITORING AND TESTING REQUIREMENTS

14. Required Number of Test Runs: For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured; provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five-day period. In the event that sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five-day period allowed form the test, the Secretary or his or her designee may accept the results of two complete runs as proof of compliance, provided that the arithmetic mean of the two complete runs is at least 20 percent below the allowable emission limiting standards.
[Rule 62-297.310(1), F.A.C]

{Note: This will apply in future years after installation of the flares, the details of which have not yet been provided.}

15. Operating Rate During Testing: Unless otherwise stated in the applicable emission limiting standard rule, testing of emission shall be conducted with the emission unit operation at permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impractical to test at permitted capacity, an emission unit may be tested at less than the minimum permitted capacity; in this case, subsequent emission unit operation is limited to 110 percent of the test load until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. [Rule 62-297.310(2), F.A.C.]

16. Calculation of Emission Rate: The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule.

17. Test Procedures: All test procedures shall meet all applicable requirements of Rule 62-297.310(4), F.A.C. [Rule 62-297.310(4), F.A.C.]

18. Special Compliance Tests: When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it shall require the owner or operator of the facility to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions units and to provide a report on the results of said tests to the Department.
[Rule 62-297.310(7)(b), F.A.C.]

19. Determination of Process Variables.

    (a) Required Equipment. The owner or operator of an emission unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emission data to determine the compliance of the emission unit with applicable emission limiting standards.

    (b) Accuracy of Equipment: Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value. [Rule 62-297.310(5), F.A.C.]

20. Required Stack Sampling Facilities: Sampling facilities include sampling ports, work platforms, access to work platforms, electrical power, and sampling equipment support. All stack sampling facilities must meet any Occupational Safety and Health Administration (OSHA) Safety and Health Standards described in 29 CFR Part 1910, Subparts D and E. Sampling facilities shall also conform to the requirements of Rule 62-297.310(6), F.A.C. See Appendix SS-1, Stack Sampling Facilities.

    [Rule 62-297.310(6), F.A.C.]

REPORTING AND RECORD KEEPING REQUIREMENTS

21. Test Notification: The owner or operator shall notify the Department's Central District office, Air Program and, if applicable, appropriate local program, at least 15 days prior to the date on which each formal compliance test is to begin. Notification shall include the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator. [Rule 62-297.310(7)(a)9, F.A.C.]

22. Duration of Record Keeping: Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least five years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
    [Rules 62-4.160(14)(a)&(b) and 62-213.440(1)(b)2.b., F.A.C.]

23. Test Reports: The owner or operator of an emission unit for which a compliance test is required shall file a report with the Department on the results of each such test. The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed. The test report shall provide sufficient detail on the emission unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the applicable information listed in Rule 62-297.310(8)(c), F.A.C.
    [Rule 62-297.310(8), F.A.C.]

24. Excess Emissions Report: If excess emissions occur, the owner or operator shall notify the Department within one working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Department may request a written summary report of the incident. Pursuant to the New Source Performance Standards, excess emissions shall also be reported in accordance with 40 CFR 60.7, Subpart A. [Rule 62-4.130, F.A.C.]

25. Excess Emissions Report - Malfunctions: In case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department or the appropriate local program in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report if requested by the Department. [Rule 62-210.700(6), F.A.C.]

26. Annual Operating Report for Air Pollutant Emitting Facility: The Annual Operating Report for Air Pollutant Emitting Facility shall be completed each year and shall be submitted to the Department's Central District office and, if applicable, the appropriate local program by March 1 of the following year. The report shall also include projected emission estimates for the following year and highlight any projected changes regarding status as a Major Facility with respect to the rules for the Prevention of Significant Deterioration at Rule 62-212.400, F.A.C. [Rule 62-210.370(3), F.A.C.]

THIS SECTION ADDRESSES THE FOLLOWING EMISSIONS UNIT (S) OF PHASE I.

Emissions Unit Number	Emissions Unit Description
001	Municipal Solid Waste Class I Landfill with gas extraction collection system
002	Phase I – Class I Landfill gas collection system Flare 1
003	Phase I – Class I Landfill gas collection system Flare 2

The following specific conditions apply to the emissions unit(s) listed above:

1. Regulations: These emissions units are subject to all applicable provisions of 40 CFR 60, NSPS Subpart WWW, Standards of Performance for Municipal Solid Waste Landfills, adopted and incorporated by reference in Rule 62-204.800(8)(b), F.A.C. and 40 CFR 63, NESHAP, Subpart AAAA (Municipal Solid Waste Landfills). These units are also subject to all applicable provisions of40 CFR 60, Subpart A, General Provisions, adopted and incorporated by reference in Rule 62-204.800 F.A.C.

   These units shall comply with applicable provisions of

   - 40 CFR 60.7 Notification and record keeping
   - 40 CFR 60.8 Performance tests
   - 40 CFR 60.11 Compliance with standards and maintenance requirements
   - 40 CFR 60.13 Monitoring requirements
   - 40 CFR 60.14 Modification
   - 40 CFR 60.15 Reconstruction
   - 40 CFR 60.18 General control device requirements

2. Solid Waste Disposal Rate (Daily): The solid waste disposal rate for the facility shall not exceed 4,000 tons per day. [Applicant Request, Rule 62-210.200., F.A.C., Definitions, Potential to Emit]

3. Solid Waste Disposal (Total): The solid waste disposed during Phase I shall not exceed 8,000,000 tons. [Rule 62-210.200., F.A.C., Definitions, Potential to Emit]

   {Note: According to information provided by the applicant, any greater amount would otherwise cause emissions of carbon monoxide greater than 250 tons per year after installation of the Gas Extraction and Collection System and flares}

4. Gas Extraction and Collection System (GECS): The GECS and at least one but no more than two flares (or energy recovery device such as engines) shall be installed and operational by the time 2,750,000 tons of waste have been disposed in the landfill or annual emissions of non-methane hydrocarbons (NMOC) are greater than or equal to 50 tons per year.
   [Rule 62-296.320(2), F.A.C. – Objectionable Odors Prohibited, Rule 62-204.800(8)(c), F.A.C. and Rule 62-4.070(3), F.A.C., Standards of Issuing and Denying Permit – Reasonable Assurance]

5. Hours of Operation: This emissions unit is allowed to operate continuously, i.e., 8,760 hours/year. [Rule 62-210.200(PTE), F.A.C.]

6. Emission Limits: The following emission limits apply:

   - Odor: No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor. [Rule 62-296.320(2), F.A.C.]

- Visible Emissions: Compliance with the visible emissions standard shall be determined using EPA Method 22 and shall be for the duration of 2 hours. Such tests shall be conducted within 60 days of completion of construction and initial startup operation, and annually thereafter. The required visible emissions test report shall also contain the flare gas flow rate and temperature data.
- Criteria Pollutants: After installation of the GECS, neither carbon monoxide (CO), sulfur dioxide (SO_2), particulate matter (PM_{10}), volatile organic compounds (VOC), nor nitrogen oxides (NO_X) emissions from the facility shall exceed 57 pounds per hour. Compliance measures shall be proposed by the applicant upon submittal of the GECS and flare design.
  [Avoid applicability of 62-212.400, F.A.C. – Prevention of Significant Deterioration]

7. PSD Applicability: This facility will be subject to the Rules for the Prevention of Significant Deterioration and a determination of Best Available Control Technology (BACT) when potential annual emissions of CO, SO_2, NO_X, PM_{10}, or VOC exceed 250 tons per year (TPY). The Significant Emission Rates in Table 212.400-2 shall be applied in determining PSD applicability for those pollutants that do not exceed 250 TPY when it has been determined that at least one of the pollutants does exceed 250 TPY.

8. Project Phasing: When applicable, BACT shall be determined based on technology available when the facility becomes subject to PSD and BACT. Subsequent phasing of the project may require the permittee to demonstrate the adequacy of any previous BACT determination.
   [Rule 62-212.400(6)(b), F.A.C. and 40 CFR 51.166(j)(4)]

9. Relaxations of Restrictions on Pollutant Emitting Capacity: If a previously permitted facility or modification becomes a facility or modification which would be subject to the preconstruction review requirements of this rule if it were a proposed new facility or modification solely by virtue of a relaxation in any federally enforceable limitation on the capacity of the facility or modification to emit a pollutant (such as restrictions on hours of operations), which limitation was established after August 7, 1980, then at the time of such relaxation the preconstruction review requirements of this rule shall apply to the facility or modification as though construction had not yet commence on it.
   [Rule 62.212.400 (2)(g) F.A.C.]

10. Operating Parameters: The permittee shall submit to the Department Bureau of Air Regulation in Tallahassee and to the Department District Office in Orlando as soon as it is available but not later than 180 days of the submission of the Title V application, the design information about the selected flares. This information should include but not be limited to:
    - Type of flare, model number
    - Volumetric Flow
    - Instruments which are used to measure and monitor the gas flow and the flare flame temperature

    [Rule 62-4.070 (3) F.A.C.]

11. Compliance Procedures: Each owner or operator of an MSW landfill subject to the air emissions standards of Rule 62-204.800(8)(b), F.A.C., shall:
    - Comply with the gas control system requirements in 40 CFR 60.752;
    - Comply with the operational standards in 40 CFR 60.753;
    - Comply with the compliance provisions in 40 CFR 60.755; and
    - Comply with the monitoring provisions in 40 CFR 60.756.

12. Reporting and Recordkeeping: Each owner or operator of an MSW landfill to which Rule 62-204.800(8)(b), F.A.C., applies shall comply with the reporting and recordkeeping provisions of 40 CFR 60.757 and 40 CFR 60.758, as applicable.

13. Continuous Monitoring: Proper devices for the continuous monitoring and recording of the total gas flow rate, and flame temperature at each flare, shall be installed prior to the collection and disposal of the active landfill gases. Such devices shall be properly calibrated and maintained at all times, according to manufacturers' written instructions.
[Rule 62-4.070 (3) F.A.C., 40 CFR 60, Subpart WWW]

14. Compliance Plan: An operation and maintenance plan shall be submitted to the Department's Central District Office prior to the expiration date of this permit. [Rule 62-4.070 (3) F.A.C.]

Updated 1/16/03

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Subpart AAAA--National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills

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Sec. 63.1930 What is the purpose of this subpart?

This subpart establishes national emission standards for hazardous air pollutants for existing and new municipal solid waste (MSW) landfills. This subpart requires all landfills described in Sec. 63.1935 to meet the requirements of 40 CFR part 60, subpart Cc or WWW and requires timely control of bioreactors. This subpart also requires such landfills to meet the startup, shutdown, and malfunction (SSM) requirements of the general provisions of this part and provides that compliance with the operating conditions shall be demonstrated by parameter monitoring results that are within the specified ranges. It also includes additional reporting requirements.

Sec. 63.1935 Am I subject to this subpart?

You are subject to this subpart if you meet the criteria in paragraph (a) or (b) of this section.

(a) You are subject to this subpart if you own or operate a MSW landfill that has accepted waste since November 8, 1987 or has additional capacity for waste deposition and meets any one of the three criteria in paragraphs (a)(1) through (3) of this section:

(1) Your MSW landfill is a major source as defined in 40 CFR 63.2 of subpart A.

(2) Your MSW landfill is collocated with a major source as defined in 40 CFR 63.2 of subpart A.

(3) Your MSW landfill is an area source landfill that has a design capacity equal to or greater than 2.5 million megagrams (Mg) and 2.5 million cubic meters (m^3) and has estimated uncontrolled emissions equal to or greater than 50 megagrams per year (Mg/yr) NMOC as calculated according to Sec. 60.754(a) of the MSW landfills new source performance standards in 40 CFR part 60, subpart WWW, the Federal plan, or an EPA approved and effective State or tribal plan that applies to your landfill.

(b) You are subject to this subpart if you own or operate a MSW landfill that has accepted waste since November 8, 1987 or has additional capacity for waste deposition, that includes a bioreactor, as defined in Sec. 63.1990, and that meets any one of the criteria in paragraphs (b)(1) through (3) of this section:

(1) Your MSW landfill is a major source as defined in 40 CFR 63.2 of subpart A.

(2) Your MSW landfill is collocated with a major source as defined in 40 CFR 63.2 of subpart A.

(3) Your MSW landfill is an area source landfill that has a design capacity equal to our greater than 2.5 million Mg and 2.5 million m\3\ and that is not permanently closed as of January 16, 2003.

Sec. 63.1940 What is the affected source of this subpart?

(a) An affected source of this subpart is a MSW landfill, as defined in Sec. 63.1990, that meets the criteria in Sec. 63.1935(a) or (b). The affected source includes the entire disposal facility in a contiguous geographic space where household waste is placed in or on land, including any portion of the MSW landfill operated as a bioreactor.

(b) A new affected source of this subpart is an affected source that commenced construction or reconstruction after November 7, 2000. An affected source is reconstructed if it meets the definition of reconstruction in 40 CFR 63.2 of subpart A.

(c) An affected source of this subpart is existing if it is not new.

Sec. 63.1945 When do I have to comply with this subpart?

(a) If your landfill is a new affected source, you must comply with this subpart by January 16, 2003 or at the time you begin operating, whichever is last.

(b) If your landfill is an existing affected source, you must comply with this subpart by January 16, 2004.

c) If your landfill is a new affected source and is a major source or is collocated with a major source, you must comply with the requirements in Sec. Sec. 63.1955(b) and 63.1960 through 63.1980 by the date your landfill is required to install a collection and control system by 40 CFR 60.752(b)(2) of subpart WWW.

(d) If your landfill is an existing affected source and is a major source or is collocated with a major source, you must comply with the requirements in Sec. Sec. 63.1955(b) and 63.1960 through 63.1980 by the date your landfill is required to install a collection and control system by 40 CFR 60.752(b)(2) of subpart WWW, the Federal plan, or EPA approved and effective State or tribal plan that applies to your landfill or by January 13, 2004, whichever occurs later.

(e) If your landfill is a new affected source and is an area source meeting the criteria in Sec. 63.1935(a)(3), you must comply with the requirements of Sec. Sec. 63.1955(b) and 63.1960 through 63.1980 by the date your landfill is required to install a collection and control system by 40 CFR 60.752(b)(2) of subpart WWW.

(f) If your landfill is an existing affected source and is an area source meeting the criteria in Sec. 63.1935(a)(3), you must comply with the requirements in Sec. Sec. 63.1955(b) and 63.1960 through 63.1980 by the date your landfill is required to install a collection and control system by 40 CFR 60.752(b)(2) of subpart WWW, the Federal plan, or EPA approved and effective State or tribal plan that applies to your landfill or by January 16, 2004, whichever occurs later.

Sec. 63.1947 When do I have to comply with this subpart if I own or operate a bioreactor?

You must comply with this subpart by the dates specified in Sec. 63.1945(a) or (b) of this subpart. If you own or operate a bioreactor located at a landfill that is not permanently closed as of January 16, 2003 and has a design capacity equal to or greater than 2.5 million Mg and 2.5 million m\3\, then you must install and operate a collection and control system that meets the criteria in 40 CFR 60.752(b)(2)(v) of part 60, subpart WWW, the Federal plan, or EPA approved and effective State plan according to the schedule specified in paragraph (a), (b), or (c) of this section.

(a) If your bioreactor is at a new affected source, then you must meet the requirements in paragraphs (a)(1) and (2) of this section:

(1) Install the gas collection and control system for the bioreactor before initiating liquids addition.

(2) Begin operating the gas collection and control system within 180 days after initiating liquids addition or within 180 days after achieving a moisture content of 40 percent by weight, whichever is later. If you choose to begin gas collection and control system operation 180 days after achieving a 40 percent moisture content instead of 180 days after liquids addition, use the procedures in Sec. 63.1980(g) and (h) to determine when the bioreactor moisture content reaches 40 percent.

(b) If your bioreactor is at an existing affected source, then you must install and begin operating the gas collection and control system for the bioreactor by January 17, 2006 or by the date your bioreactor is required to install a gas collection and control system under 40 CFR part 60, subpart WWW, the Federal plan, or EPA approved and effective State plan or tribal plan that applies to your landfill, whichever is earlier.

(c) If your bioreactor is at an existing affected source and you do not initiate liquids addition to your bioreactor until later than January 17, 2006, then you must meet the requirements in paragraphs (c)(1) and (2) of this section:

(1) Install the gas collection and control system for the bioreactor before initiating liquids addition.

(2) Begin operating the gas collection and control system within 180 days after initiating liquids addition or within 180 days after achieving a moisture content of 40 percent by weight, whichever is later. If you choose to begin gas collection and control system operation 180 days after achieving a 40 percent moisture content instead of 180 days after liquids addition, use the procedures in Sec. 63.1980(g) and (h) to determine when the bioreactor moisture content reaches 40 percent.

Sec. 63.1950 When am I no longer required to comply with this subpart?

You are no longer required to comply with the requirements of this subpart when you are no longer required to apply controls as specified in 40 CFR 60.752(b)(2)(v) of subpart WWW, or the Federal plan or EPA approved and effective State plan or tribal plan that implements 40 CFR part 60, subpart Cc, whichever applies to your landfill.

Sec. 63.1952 When am I no longer required to comply with the requirements of this subpart if I own or operate a bioreactor?

If you own or operate a landfill that includes a bioreactor, you are no longer required to comply with the requirements of this subpart for the bioreactor provided you meet the conditions of either paragraphs (a) or (b).

(a) Your affected source meets the control system removal criteria in 40 CFR 60.752(b)(2)(v) of part 60, subpart WWW or the bioreactor meets the criteria for a nonproductive area of the landfill in 40 CFR 60.759(a)(3)(ii) of part 60, subpart WWW.

(b) The bioreactor portion of the landfill is a closed landfill as defined in 40 CFR 60.751, subpart WWW, you have permanently ceased adding liquids to the bioreactor, and you have not added liquids to the bioreactor for at least 1 year. A closure report for the bioreactor must be submitted to the Administrator as provided in 40 CFR 60.757(d) of subpart WWW.

(c) Compliance with the bioreactor control removal provisions in this section constitutes compliance with 40 CFR part 60, subpart WWW or the Federal plan, whichever applies to your bioreactor.

Sec. 63.1955 What requirements must I meet?

(a) You must fulfill one of the requirements in paragraph (a)(1) or (2) of this section, whichever is applicable:

(1) Comply with the requirements of 40 CFR part 60, subpart WWW.

(2) Comply with the requirements of the Federal plan or EPA approved and effective State plan or tribal plan that implements 40 CFR part 60, subpart Cc.

(b) If you are required by 40 CFR 60.752(b)(2) of subpart WWW, the Federal plan, or an EPA approved and effective State or tribal plan to install a collection and control system, you must comply with the requirements in Sec. Sec. 63.1960 through 63.1985 and with the general provisions of this part specified in table 1 of this subpart.

(c) For approval of collection and control systems that include any alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping or reporting provisions, you must follow the procedures in 40 CFR 60.752(b)(2). If alternatives have

already been approved under 40 CFR part 60 subpart WWW or the Federal plan, or EPA approved and effective State or tribal plan, these alternatives can be used to comply with this subpart, except that all affected sources must comply with the SSM requirements in Subpart A of this part as specified in Table 1 of this subpart and all affected sources must submit compliance reports every 6 months as specified in Sec. 63.1980(a) and (b), including information on all deviations that occurred during the 6-month reporting period. Deviations for continuous emission monitors or numerical continuous parameter monitors must be determined using a 3 hour monitoring block average.

(d) If you own or operate a bioreactor that is located at a MSW landfill that is not permanently closed and has a design capacity equal to or greater than 2.5 million Mg and 2.5 million m\3\, then you must meet the requirements of paragraph (a) and the additional requirements in paragraphs (d)(1) and (2) of this section.

(1) You must comply with the general provisions specified in Table 1 of this subpart and Sec. Sec. 63.1960 through 63.1985 starting on the date you are required to install the gas collection and control system.

(2) You must extend the collection and control system into each new cell or area of the bioreactor prior to initiating liquids addition in that area, instead of the schedule in 40 CFR 60.752(b)(2)(ii)(A)(2).

Sec. 63.1960 How is compliance determined?

Compliance is determined in the same way it is determined for 40 CFR part 60, subpart WWW, including performance testing, monitoring of the collection system, continuous parameter monitoring, and other credible evidence. In addition, continuous parameter monitoring data, collected under 40 CFR 60.756(b)(1), (c)(1), and (d) of subpart WWW, are used to demonstrate compliance with the operating conditions for control systems. If a deviation occurs, you have failed to meet the control device operating conditions described in this subpart and have deviated from the requirements of this subpart. Finally, you must develop and implement a written SSM plan according to the provisions in 40 CFR 63.6(e)(3). A copy of the SSM plan must be maintained on site. Failure to write, implement, or maintain a copy of the SSM plan is a deviation from the requirements of this subpart.

Sec. 63.1965 What is a deviation?

A deviation is defined in Sec. 63.1990. For the purposes of the landfill monitoring and SSM plan requirements, deviations include the items in paragraphs (a) through (c) of this section.

(a) A deviation occurs when the control device operating parameter boundaries described in 40 CFR 60.758(c)(1) of subpart WWW are exceeded.

(b) A deviation occurs when 1 hour or more of the hours during the 3-hour block averaging period does not constitute a valid hour of data. A valid hour of data must have measured values for at least three 15-minute monitoring periods within the hour.

(c) A deviation occurs when a SSM plan is not developed, implemented, or maintained on site.

Sec. 63.1975 How do I calculate the 3-hour block average used to demonstrate compliance?

Averages are calculated in the same way as they are calculated in 40 CFR part 60, subpart WWW, except that the data collected during the events listed in paragraphs (a), (b), (c), and (d) of this section are not to be included in any average computed under this subpart:

(a) Monitoring system breakdowns, repairs, calibration checks, and zero (low-level) and high-level adjustments.
(b) Startups.
(c) Shutdowns.
(d) Malfunctions.

Sec. 63.1980 What records and reports must I keep and submit?

(a) Keep records and reports as specified in 40 CFR part 60, subpart WWW, or in the Federal plan, EPA approved State plan or tribal plan that implements 40 CFR part 60, subpart Cc, whichever applies to your landfill, with one exception: You must submit the annual report described in 40 CFR 60.757(f) every 6 months.

(b) You must also keep records and reports as specified in the general provisions of 40 CFR part 60 and this part as shown in Table 1 of this subpart. Applicable records in the general provisions include items such as SSM plans and the SSM plan reports.

(c) For bioreactors at new affected sources you must submit the initial semiannual compliance report and performance test results described in 40 CFR 60.757(f) within 180 days after the date you are required to begin operating the gas collection and control system by Sec. 63.1947(a)(2) of this subpart.

(d) For bioreactors at existing affected sources, you must submit the initial semiannual compliance report and performance test results described in 40 CFR 60.757(f) within 180 days after the compliance date specified in Sec. 63.1947(b) of this subpart, unless you have previously submitted a compliance report for the bioreactor required by 40 CFR part 60, subpart WWW, the Federal plan, or an EPA approved and effective State plan or tribal plan.

(e) For bioreactors that are located at existing affected sources, but do not initiate liquids addition until later than the compliance date in Sec. 63.1947(b) of this subpart, you must submit the initial semiannual compliance report and performance tests results described in 40 CFR 60.757(f) within 180 days after the date you are required to begin operating the gas collection and control system by Sec. 63.1947(c) of this subpart.

(f) If you must submit a semiannual compliance report for a bioreactor as well as a semiannual compliance report for a conventional portion of the same landfill, you may delay submittal of a subsequent semiannual compliance report for the bioreactor according to paragraphs (f)(1) through (3) of this section so that the reports may be submitted on the same schedule.

(1) After submittal of your initial semiannual compliance report and performance test results for the bioreactor, you may delay submittal of the subsequent semiannual compliance report for the bioreactor until the date the initial or subsequent semiannual compliance report is due for the conventional portion of your landfill.

(2) You may delay submittal of your subsequent semiannual compliance report by no more than 12 months after the due date for submitting the initial semiannual compliance report and performance test results described in 40 CFR 60.757(f) for the bioreactor. The report shall

cover the time period since the previous semiannual report for the bioreactor, which would be a period of at least 6 months and no more than 12 months.

(3) After the delayed semiannual report, all subsequent semiannual reports for the bioreactor must be submitted every 6 months on the same date the semiannual report for the conventional portion of the landfill is due.

(g) If you add any liquids other than leachate in a controlled fashion to the waste mass and do not comply with the bioreactor requirements in Sec. Sec. 63.1947, 63.1955(c) and 63.1980(c) through (f) of this subpart, you must keep a record of calculations showing that the percent moisture by weight expected in the waste mass to which liquid is added is less than 40 percent. The calculation must consider the waste mass, moisture content of the incoming waste, mass of water added to the waste including leachate recirculation and other liquids addition and precipitation, and the mass of water removed through leachate or other water losses. Moisture level sampling or mass balances calculations can be used. You must document the calculations and the basis of any assumptions. Keep the record of the calculations until you cease liquids addition.

(h) If you calculate moisture content to establish the date your bioreactor is required to begin operating the collection and control system under Sec. 63.1947(a)(2) or (c)(2), keep a record of the calculations including the information specified in paragraph (g) of this section for 5 years. Within 90 days after the bioreactor achieves 40 percent moisture content, report the results of the calculation, the date the bioreactor achieved 40 percent moisture content by weight, and the date you plan to begin collection and control system operation.

Sec. 63.1985 Who enforces this subpart?

(a) This subpart can be implemented and enforced by the U.S. EPA, or a delegated authority such as the applicable State, local, or tribal agency. If the EPA Administrator has delegated authority to a State, local, or tribal agency, then that agency as well as the U.S. EPA has the authority to implement and enforce this subpart. Contact the applicable EPA Regional Office to find out if this subpart is delegated to a State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under subpart E of this part, the authorities contained in paragraph (c) of this section are retained by the EPA Administrator and are not transferred to the State, local, or tribal agency.

(c) The authorities that will not be delegated to State, local, or tribal agencies are as follows. Approval of alternatives to the standards in Sec. 63.1955. Where these standards reference another subpart, the cited provisions will be delegated according to the delegation provisions of the referenced subpart.

Sec. 63.1990 What definitions apply to this subpart?

Terms used in this subpart are defined in the Clean Air Act, 40 CFR part 60, subparts A, Cc, and WWW; 40 CFR part 62, subpart GGG, and subpart A of this part, and this section that follows:

Bioreactor means a MSW landfill or portion of a MSW landfill where any liquid other than leachate (leachate includes landfill gas condensate) is added in a controlled fashion into the waste mass (often in combination with recirculating leachate) to reach a minimum average

moisture content of at least 40 percent by weight to accelerate or enhance the anaerobic (without oxygen) biodegradation of the waste.

Deviation means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

(1) Fails to meet any requirement or obligation established by this subpart, including, but not limited to, any emissions limitation (including any operating limit) or work practice standard;

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or

(3) Fails to meet any emission limitation, (including any operating limit), or work practice standard in this subpart during SSM, regardless of whether or not such failure is permitted by this subpart.

Emissions limitation means any emission limit, opacity limit, operating limit, or visible emissions limit.

EPA approved State plan means a State plan that EPA has approved based on the requirements in 40 CFR part 60, subpart B to implement and enforce 40 CFR part 60, subpart Cc. An approved State plan becomes effective on the date specified in the notice published in the Federal Register announcing EPA's approval.

Federal plan means the EPA plan to implement 40 CFR part 60, subpart Cc for existing MSW landfills located in States and Indian country where State plans or tribal plans are not currently in effect. On the effective date of an EPA approved State or tribal plan, the Federal plan no longer applies. The Federal plan is found at 40 CFR part 62, subpart GGG.

Municipal solid waste landfill or MSW landfill means an entire disposal facility in a contiguous geographical space where household waste is placed in or on land. A municipal solid waste landfill may also receive other types of RCRA Subtitle D wastes (see Sec. 257.2 of this chapter) such as commercial solid waste, nonhazardous sludge, conditionally exempt small quantity generator waste, and industrial solid waste. Portions of a municipal solid waste landfill may be separated by access roads. A municipal solid waste landfill may be publicly or privately owned. A municipal solid waste landfill may be a new municipal solid waste landfill, an existing municipal solid waste landfill, or a lateral expansion.

Tribal plan means a plan submitted by a tribal authority pursuant to 40 CFR parts 9, 35, 49, 50, and 81 to implement and enforce 40 CFR part 60, subpart Cc.

Work practice standard means any design, equipment, work practice, or operational standard, or combination thereof, that is promulgated pursuant to section 112(h) of the Clean Air Act.

As stated in Sec. 63.1955 and 63.1980, you must meet each requirement in the following table that applies to you.

Appendix 1 of Subpart AAAA of Part 63--Applicability of NESHAP General Provisions to Subpart AAAA

§ 63.1 Applicability.

(a) *General.* **Affected Sources are already subject to the provisions of paragraphs (a)(10)-(12) through the same provisions under 40 CFR, part 60 subpart A.**

(1) Terms used throughout this part are defined in § 63.2 or in the Clean Air Act (Act) as amended in 1990, except that individual subparts of this part may include specific definitions

in addition to or that supersede definitions in § 63.2.

(2) This part contains national emission standards for hazardous air pollutants (NESHAP) established pursuant to section 112 of the Act as amended November 15, 1990. These standards regulate specific categories of stationary sources that emit (or have the potential to emit) one or more hazardous air pollutants listed in this part pursuant to section 112(b) of the Act. This section explains the applicability of such standards to sources affected by them. The standards in this part are independent of NESHAP contained in 40 CFR part 61. The NESHAP in part 61 promulgated by signature of the Administrator before November 15, 1990 (i.e., the date of enactment of the Clean Air Act Amendments of 1990) remain in effect until they are amended, if appropriate, and added to this part.

(3) No emission standard or other requirement established under this part shall be interpreted, construed, or applied to diminish or replace the requirements of a more stringent emission limitation or other applicable requirement established by the Administrator pursuant to other authority of the Act (section 111, part C or D or any other authority of this Act), or a standard issued under State authority. The Administrator may specify in a specific standard under this part that facilities subject to other provisions under the Act need only comply with the provisions of that standard.

(4) (i) Each relevant standard in this part 63 must identify explicitly whether each provision in this subpart A is or is not included in such relevant standard.

(ii) If a relevant part 63 standard incorporates the requirements of 40 CFR part 60, part 61, or other part 63 standards, the relevant part 63 standard must identify explicitly the applicability of each corresponding part 60,part 61, or other part 63 subpart A (General) Provision.

(iii) The General Provisions in this Subpart A do not apply to regulations developed pursuant to section112(r) of the amended Act., unless otherwise specified in those regulations.

(5) [Reserved]

(6) To obtain the most current list of categories of sources to be regulated under section 112 of the Act, or to obtain the most recent regulation promulgation schedule established pursuant to section 112(e) of the Act, contact the Office of the Director, Emission Standards Division, Office of Air Quality Planning and Standards, U.S. EPA (MD–13), Research Triangle Park, North Carolina 27711.

(7) [Reserved]

(8) [Reserved]

(9) [Reserved]

(10) For the purposes of this part, time periods specified in days shall be measured in calendar days, even if the word ''calendar'' is absent, unless otherwise specified in an applicable requirement.

(11) For the purposes of this part, if an explicit postmark deadline is not specified in an applicable requirement for the submittal of a notification, application, test plan, report, or other written communication to the Administrator, the owner or operator shall postmark the submittal on or before the number of days specified in the applicable requirement. For example, if a notification must be submitted 15 days before a particular event is scheduled to take place, the notification shall be postmarked on or before 15 days preceding the event; likewise, if a notification must be submitted 15 days after a particular event takes place, the notification shall be postmarked on or before 15 days following the end of the event. The use of reliable non-Government mail carriers that provide indications of verifiable delivery of information required to be submitted to the Administrator, similar to the postmark provided by the U.S. Postal Service, or alternative means of delivery agreed to by the permitting authority, is acceptable.

(12) Notwithstanding time periods or postmark deadlines specified in this part for the submittal of information to the Administrator by an owner or operator, or the review of such information by the Administrator, such time periods or deadlines may be changed by mutual agreement between the owner or operator and the Administrator. Procedures governing the implementation of this provision are specified in § 63.9(i).

(13) [Reserved]

(14) [Reserved]

(b) *Initial applicability determination for this part.*

(1) The provisions of this part apply to the owner or operator of any stationary source that

(i) Emits or has the potential to emit any hazardous air pollutant listed in or pursuant to section 112(b) of the Act; and

(ii) Is subject to any standard, limitation, prohibition, or other federally enforceable requirement established pursuant to this part.

(2) [Reserved]

(3) An owner or operator of a stationary source who is in the relevant source category and who determines that the source is not subject to a relevant standard or other requirement established under this part, must keep a record as specified in § 63.10(b)(3).

(c) *Applicability of this part after a relevant standard has been set under this part.*
[Reserved]

(d) [Reserved]

(e) If the Administrator promulgates an emission standard under section 112(d) or (h) of the Act that is applicable to a source subject to an emission limitation by permit established under section 112(j) of the Act, and the requirements under the section 112(j) emission limitation are substantially as effective as the promulgated emission standard, the owner or operator may request the permitting authority to revise the source's title V permit to reflect that the emission limitation in the permit satisfies the requirements of the promulgated emission standard. The process by which the permitting authority determines whether the section 112(j) emission limitation is substantially as effective as the promulgated emission standard must include, consistent with part 70 or 71 of this chapter, the opportunity for full public, EPA, and affected State review (including the opportunity for EPA's objection) prior to the permit revision being finalized. A negative determination by the permitting authority constitutes final action for purposes of review and appeal under the applicable title V operating permit program.

§ 63.2 Definitions.

The terms used in this part are defined in the Act or in this section as follows:

Act means the Clean Air Act (42 U.S.C. 7401 et seq., as amended by Pub. L. 101–549, 104 Stat. 2399).

Actual emissions is defined in subpart D of this part for the purpose of granting a compliance extension for an early reduction of hazardous air pollutants.

Administrator means the Administrator of the United States Environmental Protection Agency or his or her authorized representative (e.g., a State that has been delegated the authority to implement the provisions of this part).

Affected source, for the purposes of this part, means the collection of equipment, activities, or both within a single contiguous area and under common control that is included in a

section 112(c) source category or subcategory for which a section 112(d) standard or other relevant standard is established pursuant to section 112 of the Act. Each relevant standard will define the "affected source," as defined in this paragraph unless a different definition is warranted based on a published justification as to why this definition would result in significant administrative, practical, or implementation problems and why the different definition would resolve those problems. The term "affected source," as used in this part, is separate and distinct from any other use of that term in EPA regulations such as those implementing title IV of the Act. Affected source may be defined differently for part 63 than affected facility and stationary source in parts 60 and 61, respectively. This definition of "affected source," and the procedures for adopting an alternative definition of "affected source," shall apply to each section 112(d) standard for which the initial proposed rule is signed by the Administrator after June 30, 2002.

Alternative emission limitation means conditions established pursuant to sections 112(i)(5) or 112(i)(6) of the Act by the Administrator or by a State with an approved permit program.

Alternative emission standard means an alternative means of emission limitation that, after notice and opportunity for public comment, has been demonstrated by an owner or operator to the Administrator's satisfaction to achieve a reduction in emissions of any air pollutant at least equivalent to the reduction in emissions of such pollutant achieved under a relevant design, equipment, work practice, or operational emission standard, or combination thereof, established under this part pursuant to section 112(h) of the Act.

Alternative test method means any method of sampling and analyzing for an air pollutant that is not a test method in this chapter and that has been demonstrated to the Administrator's satisfaction, using Method 301 in Appendix A of this part, to produce results adequate for the Administrator's determination that it may be used in place of a test method specified in this part.

Approved permit program means a State permit program approved by the Administrator as meeting the requirements of part 70 of this chapter or a Federal permit program established in this chapter pursuant to title V of the Act (42 U.S.C. 7661).

Area source means any stationary source of hazardous air pollutants that is not a major source as defined in this part.

Commenced means, with respect to construction or reconstruction of an affected source, that an owner or operator has undertaken a continuous program of construction or reconstruction or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of construction or reconstruction.

Compliance date means the date by which an affected source is required to be in compliance with a relevant standard, limitation, prohibition, or any federally enforceable requirement established by the Administrator (or a State with an approved permit program) pursuant to section 112 of the Act.

Compliance schedule means:

(1) In the case of an affected source that is in compliance with all applicable requirements established under this part, a statement that the source will continue to comply with such requirements; or

(2) In the case of an affected source that is required to comply with applicable requirements by a future date, a statement that the source will meet such requirements on a timely basis and, if required by an applicable requirement, a detailed schedule of the dates by which each step toward compliance will be reached; or

(3) In the case of an affected source not in compliance with all applicable requirements established under this part, a schedule of remedial measures, including an enforceable sequence of actions or operations with milestones and a schedule for the submission of certified progress reports, where applicable, leading to compliance with a relevant standard, limitation, prohibition, or any federally enforceable requirement established pursuant to section 112 of the Act for which

the affected source is not in compliance. This compliance schedule shall resemble and be at least as stringent as that contained in any judicial consent decree or administrative order to which the source is subject. Any such schedule of compliance shall be supplemental to, and shall not sanction non-compliance with, the applicable requirements on which it is based.

Construction means the on-site fabrication, erection, or installation of an affected source. Construction does not include the removal of all equipment comprising an affected source from an existing location and reinstallation of such equipment at a new location. The owner or operator of an existing affected source that is relocated may elect not to reinstall minor ancillary equipment including, but not limited to, piping, ductwork, and valves. However, removal and reinstallation of an affected source will be construed as reconstruction if it satisfies the criteria for reconstruction as defined in this section. The costs of replacing minor ancillary equipment must be considered in determining whether the existing affected source is reconstructed.

Continuous emission monitoring system (CEMS) means the total equipment that may be required to meet the data acquisition and availability requirements of this part, used to sample, condition (if applicable), analyze, and provide a record of emissions.

Continuous monitoring system (CMS) is a comprehensive term that may include, but is not limited to, continuous emission monitoring systems, continuous opacity monitoring systems, continuous parameter monitoring systems, or other manual or automatic monitoring that is used for demonstrating compliance with an applicable regulation on a continuous basis as defined by the regulation.

Continuous opacity monitoring system (COMS) means a continuous monitoring system that measures the opacity of emissions.

Continuous parameter monitoring system means the total equipment that may be required to meet the data acquisition and availability requirements of this part, used to sample, condition (if applicable), analyze, and provide a record of process or control system parameters.

Effective date means:

(1) With regard to an emission standard established under this part, the date of promulgation in the FEDERAL REGISTER of such standard; or

(2) With regard to an alternative emission limitation or equivalent emission limitation determined by the Administrator (or a State with an approved permit program), the date that the alternative emission limitation or equivalent emission limitation becomes effective according to the provisions of this part.

Emission standard means a national standard, limitation, prohibition, or other regulation promulgated in a subpart of this part pursuant to sections 112(d), 112(h), or 112(f) of the Act.

Emissions averaging is a way to comply with the emission limitations specified in a relevant standard, whereby an affected source, if allowed under a subpart of this part, may create emission credits by reducing emissions from specific points to a level below that required by the relevant standard, and those credits are used to offset emissions from points that are not controlled to the level required by the relevant standard.

EPA means the United States Environmental Protection Agency.

Equivalent emission limitation means any maximum achievable control technology emission limitation or requirements which are applicable to a major source of hazardous air pollutants and are adopted by the Administrator (or a State with an approved permit program) on a case-by-case basis, pursuant to section 112(g) or (j) of the Act.

Excess emissions and continuous monitoring system performance report is a report that must be submitted periodically by an affected source in order to provide data on its compliance with relevant emission limits, operating parameters, and the performance of its continuous parameter monitoring systems.

Existing source means any affected source that is not a new source.

Federally enforceable means all limitations and conditions that are enforceable by the Administrator and citizens under the Act or that are enforceable under other statutes administered by the Administrator. Examples of federally enforceable limitations and conditions include, but are not limited to:

(1) Emission standards, alternative emission standards, alternative emission limitations, and equivalent emission limitations established pursuant to section 112 of the Act as amended in 1990;

(2) New source performance standards established pursuant to section 111 of the Act, and emission standards established pursuant to section 112 of the Act before it was amended in 1990;

(3) All terms and conditions in a title V permit, including any provisions that limit a source's potential to emit, unless expressly designated as not federally enforceable;

(4) Limitations and conditions that are part of an approved State Implementation Plan (SIP) or a Federal Implementation Plan (FIP);

(5) Limitations and conditions that are part of a Federal construction permit issued under 40 CFR 52.21 or any construction permit issued under regulations approved by the EPA in accordance with 40 CFR part 51;

(6) Limitations and conditions that are part of an operating permit where the permit and the permitting program pursuant to which it was issued meet all of the following criteria:

(i) The operating permit program has been submitted to and approved by EPA into a State implementation plan (SIP) under section 110 of the CAA;

(ii) The SIP imposes a legal obligation that operating permit holders adhere to the terms and limitations of such permits and provides that permits which do not conform to the operating permit program requirements and the requirements of EPA's underlying regulations may be deemed not "federally enforceable" by EPA;

(iii) The operating permit program requires that all emission limitations, controls, and other requirements imposed by such permits will be at least as stringent as any other applicable limitations and requirements contained in the SIP or enforceable under the SIP, and that the program may not issue permits that waive, or make less stringent, any limitations or requirements contained in or issued pursuant to the SIP, or that are otherwise "federally enforceable";

(iv) The limitations, controls, and requirements in the permit in question are permanent, quantifiable, and otherwise enforceable as a practical matter; and

(v) The permit in question was issued only after adequate and timely notice and opportunity for comment for EPA and the public.

(7) Limitations and conditions in a State rule or program that has been approved by the EPA under subpart E of this part for the purposes of implementing and enforcing section 112; and

(8) Individual consent agreements that the EPA has legal authority to create.

Fixed capital cost means the capital needed to provide all the depreciable components of an existing source.

Fugitive emissions means those emissions from a stationary source that could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening. Under section 112 of the Act, all fugitive emissions are to be considered in determining whether a stationary source is a major source.

Hazardous air pollutant means any air pollutant listed in or pursuant to section 112(b) of the Act.

Issuance of a part 70 permit will occur, if the State is the permitting authority, in accordance with the requirements of part 70 of this chapter and the applicable, approved State permit program. When the EPA is the permitting authority, issuance of a title V permit occurs immediately after the EPA takes final action on the final permit.

Major source means any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit considering controls, in the aggregate, 10 tons per year or more of any hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants, unless the Administrator establishes a lesser quantity, or in the case of radionuclides, different criteria from those specified in this sentence.

Malfunction means any sudden, infrequent, and not reasonably preventable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

Monitoring means the collection and use of measurement data or other information to control the operation of a process or pollution control device or to verify a work practice standard relative to assuring compliance with applicable requirements. Monitoring is composed of four elements:

(1) Indicator(s) of performance -- the parameter or parameters you measure or observe for demonstrating proper operation of the pollution control measures or compliance with the applicable emissions limitation or standard. Indicators of performance may include direct or predicted emissions measurements (including opacity), operational parametric values that correspond to process or control device (and capture system) efficiencies or emissions rates, and recorded findings of inspection of work practice activities, materials tracking, or design characteristics. Indicators may be expressed as a single maximum or minimum value, a function of process variables (for example, within a range of pressure drops), a particular operational or work practice status (for example, a damper position, completion of a waste recovery task, materials tracking), or an interdependency between two or among more than two variables.

(2) Measurement techniques -- the means by which you gather and record information of or about the indicators of performance. The components of the measurement technique include the detector type, location and installation specifications, inspection procedures, and quality assurance and quality control measures. Examples of measurement techniques include continuous emission monitoring systems, continuous opacity monitoring systems, continuous parametric monitoring systems, and manual inspections that include making records of process conditions or work practices.

(3) Monitoring frequency -- the number of times you obtain and record monitoring data over a specified time interval. Examples of monitoring frequencies include at least four points equally spaced for each hour for continuous emissions or parametric monitoring systems, at least every 10 seconds for continuous opacity monitoring systems, and at least once per operating day (or week, month, etc.) for work practice or design inspections.

(4) Averaging time -- the period over which you average and use data to verify proper operation of the pollution control approach or compliance with the emissions limitation or standard. Examples of averaging time include a 3-hour average in units of the emissions limitation, a 30-day rolling average emissions value, a daily average of a control device operational parametric range, and an instantaneous alarm.

New affected source means the collection of equipment, activities, or both within a single contiguous area and under common control that is included in a section 112(c) source category or subcategory that is subject to a section 112(d) or other relevant standard for new sources. This definition of "new affected source," and the criteria to be utilized in implementing it, shall apply to each section 112(d) standard for which the initial proposed rule is signed by the Administrator after June 30, 2002. Each relevant standard will define the term "new affected source," which will

be the same as the "affected source" unless a different collection is warranted based on consideration of factors including:

(1) Emission reduction impacts of controlling individual sources versus groups of sources;

(2) Cost effectiveness of controlling individual equipment;

(3) Flexibility to accommodate common control strategies;

(4) Cost/benefits of emissions averaging;

(5) Incentives for pollution prevention;

(6) Feasibility and cost of controlling processes that share common equipment (e.g., product recovery devices);

(7) Feasibility and cost of monitoring; and

(8) Other relevant factors.

New source means any affected source the construction or reconstruction of which is commenced after the Administrator first proposes a relevant emission standard under this part establishing an emission standard applicable to such source.

Opacity means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background. For continuous opacity monitoring systems, opacity means the fraction of incident light that is attenuated by an optical medium.

Owner or operator means any person who owns, leases, operates, controls, or supervises a stationary source..

Performance audit means a procedure to analyze blind samples, the content of which is known by the Administrator, simultaneously with the analysis of performance test samples in order to provide a measure of test data quality.

Performance evaluation means the conduct of relative accuracy testing, calibration error testing, and other measurements used in validating the continuous monitoring system data.

Performance test means the collection of data resulting from the execution of a test method (usually three emission test runs) used to demonstrate compliance with a relevant emission standard as specified in the performance test section of the relevant standard.

Permit modification means a change to a title V permit as defined in regulations codified in this chapter to implement title V of the Act (42 U.S.C. 7661).

Permit program means a comprehensive State operating permit system established pursuant to title V of the Act (42 U.S.C. 7661) and regulations codified in part 70 of this chapter and applicable State regulations, or a comprehensive Federal operating permit system established pursuant to title V of the Act and regulations codified in this chapter.

Permit revision means any permit modification or administrative permit amendment to a title V permit as defined in regulations codified in this chapter to implement title V of the Act (42 U.S.C. 7661).

Permitting authority means:

(1) The State air pollution control agency, local agency, other State agency, or other agency authorized by the Administrator to carry out a permit program under part 70 of this chapter; or

(2) The Administrator, in the case of EPA-implemented permit programs under title V of the Act (42 U.S.C. 7661).

Potential to emit means the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the stationary source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is federally enforceable.

Reconstruction means the replacement of components of an affected or a previously unaffected stationary source to such an extent that:

(1) The fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable new source; and

(2) It is technologically and economically feasible for the reconstructed source to meet the relevant standard(s) established by the Administrator (or a State) pursuant to section 112 of the Act. Upon reconstruction, an affected source, or a stationary source that becomes an affected source, is subject to relevant standards for new sources, including compliance dates, irrespective of any change in emissions of hazardous air pollutants from that source.

Regulation promulgation schedule means the schedule for the promulgation of emission standards under this part, established by the Administrator pursuant to section 112(e) of the Act and published in the FEDERAL REGISTER.

Relevant standard means:

(1) An emission standard;

(2) An alternative emission standard;

(3) An alternative emission limitation; or

(4) An equivalent emission limitation established pursuant to section 112 of the Act that applies to the collection of equipment, activities, or both regulated by such standard or limitation. A relevant standard may include or consist of a design, equipment, work practice, or operational requirement, or other measure, process, method, system, or technique (including prohibition of emissions) that the Administrator (or a State) establishes for new or existing sources to which such standard or limitation applies. Every relevant standard established pursuant to section 112 of the Act includes subpart A of this part, as provided by § 63.1(a)(4), and all applicable appendices of this part or of other parts of this chapter that are referenced in that standard.

Responsible official means one of the following:

(1) For a corporation: A president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities and either:

(i) The facilities employ more than 250 persons or have gross annual sales or expenditures exceeding $25 million (in second quarter 1980 dollars); or

(ii) The delegation of authority to such representative is approved in advance by the Administrator.

(2) For a partnership or sole proprietorship: a general partner or the proprietor, respectively.

(3) For a municipality, State, Federal, or other public agency: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of the EPA).

(4) For affected sources (as defined in this part) applying for or subject to a title V permit: ''responsible official'' shall have the same meaning as defined in part 70 or Federal title V regulations in this chapter (42 U.S.C. 7661), whichever is applicable.

Run means one of a series of emission or other measurements needed to determine emissions for a representative operating period or cycle as specified in this part.

Shutdown means the cessation of operation of an affected source or portion of an affected source for any purpose.

Six-minute period means, with respect to opacity determinations, any one of the 10 equal parts of a 1-hour period.

Standard conditions means a temperature of 293 °K (68° F) and a pressure of 101.3 kilopascals (29.92 in. Hg).

Startup means the setting in operation of an affected source for any purpose.

State means all non-Federal authorities, including local agencies, interstate associations, and State-wide programs, that have delegated authority to implement:

(1) The provisions of this part and/or

(2) the permit program established under part 70 of this chapter. The term State shall have its conventional meaning where clear from the context.

Stationary source means any building, structure, facility, or installation which emits or may emit any air pollutant.

Test method means the validated procedure for sampling, preparing, and analyzing for an air pollutant specified in a relevant standard as the performance test procedure. The test method may include methods described in an appendix of this chapter, test methods incorporated by reference in this part, or methods validated for an application through procedures in Method 301 of appendix A of this part.

Title V permit means any permit issued, renewed, or revised pursuant to Federal or State regulations established to implement title V of the Act (42 U.S.C. 7661). A title V permit issued by a State permitting authority is called a part 70 permit in this part.

Visible emission means the observation of an emission of opacity or optical density above the threshold of vision.

Working day means any day on which Federal Government offices (or State government offices for a State that has obtained delegation under section 112(l)) are open for normal business. Saturdays, Sundays, and official Federal (or where delegated, State) holidays are not working days.

§ 63.3 Units and abbreviations.

[Reserved]

§ 63.4 Prohibited activities and circumvention.

Affected Sources are already subject to the provisions of paragraphs (b) through the same provisions under 40 CFR, part 60 subpart A.

(a) *Prohibited activities.*

(1) No owner or operator subject to the provisions of this part must operate any affected source in violation of the requirements of this part. Affected sources subject to and in compliance with either an extension of compliance or an exemption from compliance are not in violation of the requirements of this part. An extension of compliance can be granted by the Administrator under this part; by a State with an approved permit program; or by the President under section 112(i)(4) of the Act.

(2) No owner or operator subject to the provisions of this part shall fail to keep records, notify, report, or revise reports as required under this part.

(3) [Reserved]

(4) [Reserved]

(5) [Reserved]

(b) *Circumvention.* No owner or operator subject to the provisions of this part shall build, erect,

install, or use any article, machine, equipment, or process to conceal an emission that would otherwise constitute noncompliance with a relevant standard. Such concealment includes, but is not limited to

(1) The use of diluents to achieve compliance with a relevant standard based on the concentration of a pollutant in the effluent discharged to the atmosphere;

(2) The use of gaseous diluents to achieve compliance with a relevant standard for visible emissions; and

(3) [Reserved]

(c) *Severability.* Notwithstanding any requirement incorporated into a title V permit obtained by an owner or operator subject to the provisions of this part, the provisions of this part are federally enforceable.

§ 63.5 Preconstruction review and notification requirements.

(a) *Applicability.*

[Reserved]

(b) *Requirements for existing, newly constructed, and reconstructed sources.*

(1) A new affected source for which construction commences after proposal of a relevant standard is subject to relevant standards for new affected sources, including compliance dates. An affected source for which reconstruction commences after proposal of a relevant standard is subject to relevant standards for new sources, including compliance dates, irrespective of any change in emissions of hazardous air pollutants from that source.

(2) [Reserved]

(3) After the effective date of any relevant standard promulgated by the Administrator under this part, no person may, without obtaining written approval in advance from the Administrator in accordance with the procedures specified in paragraphs (d) and (e) of this section, do any of the following:

(i) Construct a new affected source that is major-emitting and subject to such standard;

(ii) Reconstruct an affected source that is major-emitting and subject to such standard; or

(iii) Reconstruct a major source such that the source becomes an affected source that is major-emitting and subject to the standard.

(4) After the effective date of any relevant standard promulgated by the Administrator under this part, an owner or operator who constructs a new affected source that is not major-emitting or reconstructs an affected source that is not major-emitting that is subject to such standard, or reconstructs a source such that the source becomes an affected source subject to the standard, must notify the Administrator of the intended construction or reconstruction. The notification must be submitted in accordance with the procedures in § 63.9(b).

(5) [Reserved]

(6) After the effective date of any relevant standard promulgated by the Administrator under this part, equipment added (or a process change) to an affected source that is within the scope of the definition of affected source under the relevant standard must be considered part of the affected source and subject to all provisions of the relevant standard established for that affected source.

(c)-(f) [Reserved]

§ 63.6 Compliance with standards and maintenance requirements.

(a)-(d) [Reserved]

(e) *Operation and maintenance requirements.*

(1) (i) At all times, including periods of startup, shutdown, and malfunction, the owner or operator must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions to the levels required by the relevant standards, i.e., meet the emission standard or comply with the startup, shutdown, and malfunction plan. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures (including the startup, shutdown, and malfunction plan required in paragraph (e)(3) of this section), review of operation and maintenance records, and inspection of the source.

(i) Malfunctions must be corrected as soon as practicable after their occurrence in accordance with the startup, shutdown, and malfunction plan required in paragraph (e)(3) of this section. To the extent that an unexpected event arises during a startup, shutdown, or malfunction, an owner or operator must comply by minimizing emissions during such a startup, shutdown, and malfunction event consistent with safety and good air pollution control practices.

(iii) Operation and maintenance requirements established pursuant to section 112 of the Act are enforceable independent of emissions limitations or other requirements in relevant standards.

(2) [Reserved]

(3) *Startup, shutdown, and malfunction plan.*

(i) The owner or operator of an affected source must develop and implement a written startup, shutdown, and malfunction plan that describes, in detail, procedures for operating and maintaining the source during periods of startup, shutdown, and malfunction; a program of corrective action for malfunctioning process; and air pollution control and monitoring equipment used to comply with the relevant standard. This plan must be developed by the owner or operator by the source's compliance date for that relevant standard. The purpose of the startup, shutdown, and malfunction plan is to --

(A) Ensure that, at all times, the owner or operator operate and maintain affected sources, including associated air pollution control and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions to the levels required by the relevant standards;

(B) Ensure that owners or operators are prepared to correct malfunctions as soon as practicable after their occurrence in order to minimize excess emissions of hazardous air pollutants; and

(C) Reduce the reporting burden associated with periods of startup, shutdown, and malfunction (including corrective action taken to restore malfunctioning process and air pollution control equipment to its normal or usual manner of operation).

(ii) During periods of startup, shutdown, and malfunction, the owner or operator of an affected source must operate and maintain such source (including associated air pollution control and monitoring equipment) in accordance with the procedures specified in the startup, shutdown, and malfunction plan developed under paragraph (e)(3)(i) of this section.

(iii) When actions taken by the owner or operator during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) are consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, the owner or operator must keep records for that event which demonstrate that the procedures specified in the plan were followed. These records may take the form of a "checklist," or other effective form of recordkeeping that confirms conformance with the startup, shutdown, and malfunction plan for that event. In addition, the owner or operator must keep records of these events as specified in § 63.10(b), including records of the occurrence and duration of each startup, shutdown, or malfunction of operation and each malfunction of the air pollution control and monitoring equipment. Furthermore, the owner or operator shall confirm that actions taken during the relevant reporting period during periods of startup, shutdown, and malfunction were consistent with the affected source's startup, shutdown and malfunction plan in the semiannual (or more frequent) startup, shutdown, and malfunction report required in § 63.10(d)(5).

(iv) If an action taken by the owner or operator during a startup, shutdown, or malfunction (including an action taken to correct a malfunction) is not consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, and the source exceeds the relevant emission standard, then the owner or operator must record the actions taken for that event and must report such actions within 2 working days after commencing actions inconsistent with the plan, followed by a letter within 7 working days after the end of the event, in accordance with § 63.10(d)(5) (unless the owner or operator makes alternative reporting arrangements, in advance, with the Administrator).

(v) The owner or operator must maintain at the affected source a current startup, shutdown, and malfunction plan and must make the plan available upon request for inspection and copying by the Administrator. In addition, if the startup, shutdown, and malfunction plan is subsequently revised as provided in paragraph (e)(3)(viii) of this section, the owner or operator must maintain at the affected source each previous (i.e., superseded) version of the startup, shutdown, and malfunction plan, and must make each such previous version available for inspection and copying by the Administrator for a period of 5 years after revision of the plan. If at any time after adoption of a startup, shutdown, and malfunction plan the affected source ceases operation or is otherwise no longer subject to the provisions of this part, the owner or operator must retain a copy of the most recent plan for 5 years from the date the source ceases operation or is no longer subject to this part and must make the plan available upon request for inspection and copying by the Administrator.

(vi) To satisfy the requirements of this section to develop a startup, shutdown, and malfunction plan, the owner or operator may use the affected source's standard operating procedures (SOP) manual, or an Occupational Safety and Health Administration (OSHA) or other plan, provided the alternative plans meet all the requirements of this section and are made available for inspection when requested by the Administrator.

(vii) Based on the results of a determination made under paragraph (e)(2) of this section, the Administrator may require that an owner or operator of an affected source make changes to the startup, shutdown, and malfunction plan for that source. The Administrator may require reasonable revisions to a startup, shutdown, and malfunction plan, if the Administrator finds that the plan:

(A) Does not address a startup, shutdown, or malfunction event that has occurred;

(B) Fails to provide for the operation of the source (including associated air pollution control and monitoring equipment) during a startup, shutdown, or malfunction event in a manner consistent with safety and good air pollution control practices for minimizing emissions to the levels required by the relevant standards;

(C) Does not provide adequate procedures for correcting malfunctioning process and/or air pollution control and monitoring equipment as quickly as practicable; or

(D) Includes an event that does not meet the definition of startup, shutdown, or malfunction listed in § 63.2.

(viii) The owner or operator may periodically revise the startup, shutdown, and malfunction plan for the affected source as necessary to satisfy the requirements of this part or to reflect changes in equipment or procedures at the affected source. Unless the permitting authority provides otherwise, the owner or operator may make such revisions to the startup, shutdown, and malfunction plan without prior approval by the Administrator or the permitting authority. However, each such revision to a startup, shutdown, and malfunction plan must be reported in the semiannual report required by § 63.10(d)(5). If the startup, shutdown, and malfunction plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction but was not included in the startup, shutdown, and malfunction plan at the time the owner or operator developed the plan, the owner or operator must revise the startup, shutdown, and malfunction plan within 45 days after the event to include detailed procedures for operating and maintaining the source during similar malfunction events and a program of corrective action for similar malfunctions of process or air pollution control and monitoring equipment. In the event that the owner or operator makes any revision to the startup, shutdown, and malfunction plan which alters the scope of the activities at the source which are deemed to be a startup, shutdown, malfunction, or otherwise modifies the applicability of any emission limit, work practice requirement, or other requirement in a standard established under this part, the revised plan shall not take effect until after the owner or operator has provided a written notice describing the revision to the permitting authority.

(ix) The title V permit for an affected source must require that the owner or operator adopt a startup, shutdown, and malfunction plan which conforms to the provisions of this part, and that the owner or operator operate and maintain the source in accordance with the procedures specified in the current startup, shutdown, and malfunction plan. However, any revisions made to the startup, shutdown, and malfunction plan in accordance with the procedures established by this part shall not be deemed to constitute permit revisions under part 70 or part 71 of this chapter. Moreover, none of the procedures specified by the startup, shutdown, and malfunction plan for an affected source shall be deemed to fall within the permit shield provision in section 504(f) of the Act.

(f) *Compliance with nonopacity emission standards* - **Affected Sources are already subject to the provisions of paragraphs (f)(1) and (2)(1) through the same provisions under 40 CFR, part 60 subpart A.**

(1) *Applicability.* The non-opacity emission standards set forth in this part shall apply at all times except during periods of startup, shutdown, and malfunction, and as otherwise specified in an applicable subpart. If a startup, shutdown, or malfunction of one portion of an affected source does not affect the ability of particular emission points within other portions of the affected source to comply with the non-opacity emission standards set forth in this part, then that emission point must still be required to comply with the non-opacity emission standards and other applicable requirements.

(2) *Methods for determining compliance.*

(i) The Administrator will determine compliance with nonopacity emission standards in this part based on the results of performance tests conducted according to the procedures in § 63.7, unless otherwise specified in an applicable subpart of this part.

(ii) The Administrator will determine compliance with nonopacity emission standards in this part by evaluation of an owner or operator's conformance with operation and

maintenance requirements, including the evaluation of monitoring data, as specified in § 63.6(e) and applicable subparts of this part.

(iii) If an affected source conducts performance testing at startup to obtain an operating permit in the State in which the source is located, the results of such testing may be used to demonstrate compliance with a relevant standard if -

(A) The performance test was conducted within a reasonable amount of time before an initial performance test is required to be conducted under the relevant standard;

(B) The performance test was conducted under representative operating conditions for the source;

(C) The performance test was conducted and the resulting data were reduced using EPA-approved test methods and procedures, as specified in § 63.7(e) of this subpart; and

(D) The performance test was appropriately quality-assured, as specified in § 63.7(c).

(iv) The Administrator will determine compliance with design, equipment, work practice, or operational emission standards in this part by review of records, inspection of the source, and other procedures specified in applicable subparts of this part.

(v) The Administrator will determine compliance with design, equipment, work practice, or operational emission standards in this part by evaluation of an owner or operator's conformance with operation and maintenance requirements, as specified in paragraph (e) of this section and applicable subparts of this part.

(3) *Finding of compliance.* The Administrator will make a finding concerning an affected source's compliance with a non-opacity emission standard, as specified in paragraphs (f)(1) and (2) of this section, upon obtaining all the compliance information required by the relevant standard (including the written reports of performance test results, monitoring results, and other information, if applicable), and information available to the Administrator pursuant to paragraph (e)(1)(i) of this section.

(g) *Use of an alternative nonopacity emission standard.*
[Reserved]

(h) *Compliance with opacity and visible emission standards -*
[Reserved]

(i) *Extension of compliance with emission standards.*
[Reserved]

(j) *Exemption from compliance with emission standards.* [Reserved]

§ 63.7 Performance testing requirements.
[Reserved]

§ 63.8 Monitoring requirements.
[Reserved]

§ 63.9 Notification requirements.
[Reserved]

§ 63.10 Recordkeeping and reporting requirements.

(a) *Applicability and general information.*
[Reserved]

(b) *General recordkeeping requirements.*
[Reserved]

(2) The owner or operator of an affected source subject to the provisions of this part shall maintain relevant records for such source of -

(i) The occurrence and duration of each startup, shutdown, or malfunction of operation (i.e., process equipment);

(ii) The occurrence and duration of each malfunction of the required air pollution control and monitoring equipment;

(iii) All required maintenance performed on the air pollution control and monitoring equipment;

(iv) Actions taken during periods of startup, shutdown, and malfunction (including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation) when such actions are different from the procedures specified in the affected source's startup, shutdown, and malfunction plan (see § 63.6(e)(3));

(v) All information necessary to demonstrate conformance with the affected source's startup, shutdown, and malfunction plan (see § 63.6(e)(3)) when all actions taken during periods of startup, shutdown, and malfunction (including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation) are consistent with the procedures specified in such plan. (The information needed to demonstrate conformance with the startup, shutdown, and malfunction plan may be recorded using a "checklist," or some other effective form of recordkeeping, in order to minimize the recordkeeping burden for conforming events);

(vi)-(xiv) [Reserved]

(3) *Recordkeeping requirement for applicability determinations.*
[Reserved]

(c) *Additional recordkeeping requirements for sources with continuous monitoring systems.*
[Reserved]

(d) *General reporting requirements.*
(1)-(4) [Reserved]

(5) (i) Periodic startup, shutdown, and malfunction reports. If actions taken by an owner or operator during a startup, shutdown, or malfunction of an affected source (including actions taken to correct a malfunction) are consistent with the procedures specified in the source's startup, shutdown, and malfunction plan [see § 63.6(e)(3)], the owner or operator shall state such information in a startup, shutdown, and malfunction report. Reports shall only be required if a startup, shutdown, or malfunction occurred during the reporting period. The startup, shutdown, and malfunction report shall consist of a letter, containing the name, title, and signature of the owner or operator or other responsible official who is certifying its accuracy, that shall be submitted to the Administrator semi-annually (or on a more frequent basis if specified otherwise in a relevant standard or as established otherwise by the permitting authority in the source's title V permit). The startup, shutdown, and malfunction report shall be delivered or postmarked by the 30th day following the end of each calendar half (or other calendar reporting

period, as appropriate). If the owner or operator is required to submit excess emissions and continuous monitoring system performance (or other periodic) reports under this part, the startup, shutdown, and malfunction reports required under this paragraph may be submitted simultaneously with the excess emissions and continuous monitoring system performance (or other) reports. If startup, shutdown, and malfunction reports are submitted with excess emissions and continuous monitoring system performance (or other periodic) reports, and the owner or operator receives approval to reduce the frequency of reporting for the latter under paragraph (e) of this section, the frequency of reporting for the startup, shutdown, and malfunction reports also may be reduced if the Administrator does not object to the intended change. The procedures to implement the allowance in the preceding sentence shall be the same as the procedures specified in paragraph (e)(3) of this section.

(ii) Immediate startup, shutdown, and malfunction reports. Notwithstanding the allowance to reduce the frequency of reporting for periodic startup, shutdown, and malfunction reports under paragraph (d)(5)(i) of this section, any time an action taken by an owner or operator during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) is not consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, the owner or operator shall report the actions taken for that event within 2 working days after commencing actions inconsistent with the plan followed by a letter within 7 working days after the end of the event. The immediate report required under this paragraph shall consist of a telephone call (or facsimile (FAX) transmission) to the Administrator within 2 working days after commencing actions inconsistent with the plan, and it shall be followed by a letter, delivered or postmarked within 7 working days after the end of the event, that contains the name, title, and signature of the owner or operator or other responsible official who is certifying its accuracy, explaining the circumstances of the event, the reasons for not following the startup, shutdown, and malfunction plan, and whether any excess emissions and/or parameter monitoring exceedances are believed to have occurred. Notwithstanding the requirements of the previous sentence, after the effective date of an approved permit program in the State in which an affected source is located, the owner or operator may make alternative reporting arrangements, in advance, with the permitting authority in that State. Procedures governing the arrangement of alternative reporting requirements under this paragraph are specified in § 63.9(i).

(e) –(f) [Reserved]

§ 63.11 Control device requirements.

[Reserved]

§ 63.12 State authority and delegations.

(a) The provisions of this part shall not be construed in any manner to preclude any State or political subdivision thereof from -

(1) Adopting and enforcing any standard, limitation, prohibition, or other regulation applicable to an affected source subject to the requirements of this part, provided that such standard, limitation, prohibition, or regulation is not less stringent than any requirement applicable to such source established under this part;

(2) Requiring the owner or operator of an affected source to obtain permits, licenses, or approvals prior to initiating construction, reconstruction, modification, or operation of such source; or

(3) Requiring emission reductions in excess of those specified in subpart D of this part as a condition for granting the extension of compliance authorized by section 112(i)(5) of the Act.

(b)-(c) [Reserved]

§ 63.13 Addresses of State air pollution control agencies and EPA Regional Offices.

[Reserved]

§ 63.14 Incorporations by reference.

[Reserved]

§ 63.15 Availability of information and confidentiality.

(a) *Availability of information.*

(1) With the exception of information protected through part 2 of this chapter, all reports, records, and other information collected by the Administrator under this part are available to the public. In addition, a copy of each permit application, compliance plan (including the schedule of compliance), notification of compliance status, excess emissions and continuous monitoring systems performance report, and title V permit is available to the public, consistent with protections recognized in section 503(e) of the Act.

(2) The availability to the public of information provided to or otherwise obtained by the Administrator under this part shall be governed by part 2 of this chapter.

(b) *Confidentiality.*

(1) If an owner or operator is required to submit information entitled to protection from disclosure under section 114(c) of the Act, the owner or operator may submit such information separately. The requirements of section 114(c) shall apply to such information.

(2) The contents of a title V permit shall not be entitled to protection under section 114(c) of the Act; however, information submitted as part of an application for a title V permit may be entitled to protection from disclosure.

60.18 General control device requirements.

(a) Introduction. This section contains requirements for control devices used to comply with applicable subparts of parts 60 and 61. The requirements are placed here for administrative convenience and only apply to facilities covered by subparts referring to this section.

(b) Flares. Paragraphs (c) through (f) apply to flares.

(c) (1) Flares shall be designed for and operated with no visible emissions as determined by the methods specified in paragraph (f), except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.

(2) Flares shall be operated with a flame present at all times, as determined by the methods specified in paragraph (f).

(3) Flares shall be used only with the net heating value of the gas being combusted being 11.2 MJ/scm (300 Btu/scf) or greater if the flare is steam-assisted or air-assisted; or with the net heating value of the gas being combusted being 7.45 MJ/scm (200 Btu/scf) or greater if the flare is nonassisted. The net heating value of the gas being combusted shall be determined by the methods specified in paragraph (f).

(4) (i) Steam-assisted and nonassisted flares shall be designed for and operated with an exit velocity, as determined by the methods specified in paragraph (f)(4), less than 18.3 m/sec (60 ft/sec), except as provided in paragraphs (b)(4) (ii) and (iii).

(ii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the methods specified in paragraph (f)(4), equal to or greater than 18.3 m/sec (60 ft/sec) but less than 122 m/sec (400 ft/sec) are allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf).

(iii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the methods specified in paragraph (f)(4), less than the velocity, Vmax, as determined by the method specified in paragraph (f)(5), and less than 122 m/sec (400 ft/sec) are allowed.

(5) Air-assisted flares shall be designed and operated with an exit velocity less than the velocity, Vmax, as determined by the method specified in paragraph (f)(6).

(6) Flares used to comply with this section shall be steam-assisted, air-assisted, or nonassisted.

(d) Owners or operators of flares used to comply with the provisions of this subpart shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. Applicable subparts will provide provisions stating how owners or operators of flares shall monitor these control devices.

(e) Flares used to comply with provisions of this subpart shall be operated at all times when emissions may be vented to them.

(f) (1) Reference Method 22 shall be used to determine the compliance of flares with the visible emission provisions of this subpart. The observation period is 2 hours and shall be used according to Method 22.

(2) The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame.

(3) The net heating value of the gas being combusted in a flare shall be calculated using the following equation:

$$H_T = K\sum_{i=1}^{n} C_i H_i$$

where:

H_T =Net heating value of the sample, MJ/scm; where the net enthalpy per mole of offgas is based on combustion at 25 °C and 760 mm Hg, but the standard temperature for determining the volume corresponding to one mole is 20 °C;

k = Constant

$$1.740 x 10^{-7} \left(\frac{1}{ppm}\right)\left(\frac{gmole}{scm}\right)\left(\frac{MJ}{kcal}\right)$$

where the standard temperature for (gmole/scm) is 20°C;

C_i =Concentration of sample component i in ppm on a wet basis, as measured for organics by Reference Method 18 and measured for hydrogen and carbon monoxide by ASTM D1946–77 (Incorporated by reference as specified in § 60.17); and

H_i =Net heat of combustion of sample component i, kcal/ g mole at 25 °C and 760 mm Hg. The heats of combustion may be determined using ASTM D2382–76 (incorporated by reference as specified in § 60.17) if published values are not available or cannot be calculated.

(4) The actual exit velocity of a flare shall be determined by dividing the volumetric flowrate (in units of standard temperature and pressure), as determined by Reference Methods 2, 2A, 2C, or 2D as appropriate; by the unobstructed (free) cross sectional area of the flare tip.

(5) The maximum permitted velocity, V_{max}, for flares complying with paragraph (c)(4)(iii) shall be determined by the following equation.

$$\text{Log}_{10}(V_{max}) = (H_T + 28.8)/31.7$$

V_{max} =Maximum permitted velocity, M/sec

28.8=Constant

31.7=Constant

H_T =The net heating value as determined in paragraph (f)(3).

(6) The maximum permitted velocity, V_{max}, for air-assisted flares shall be determined by the following equation.

V_{max} =8.706+0.7084 (H_T)

V_{max} =Maximum permitted velocity, m/sec

8.706 =Constant

0.7084 =Constant

H_T =The net heating value as determined in paragraph (f)(3).

G.1 The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

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

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

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

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

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

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

(a) Have access to and copy and records that must be kept under the conditions of the permit;
(b) Inspect the facility, equipment, practices, or operations regulated or required under this permit, and,
(c) Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

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

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

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

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

G.9 In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extend it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

G.10 The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

G.11 This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

G.12 This permit or a copy thereof shall be kept at the work site of the permitted activity.

G.13 This permit also constitutes:

(a) Determination of Best Available Control Technology ( );
(b) Determination of Prevention of Significant Deterioration ( );
(c) Compliance with New Source Performance Standards (X); and
(d) Compliance with National Emission Standards for Hazardous Air Pollutants (X).

G.14 The permittee shall comply with the following:

(a) Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
(b) The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application or this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
(c) Records of monitoring information shall include:

1. The date, exact place, and time of sampling or measurements;
2. The person responsible for performing the sampling or measurements;
3. The dates analyses were performed;
4. The person responsible for performing the analyses;
5. The analytical techniques or methods used; and
6. The results of such analyses.

G.15 When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

[Last Updated 1/31/03]
{Source: Federal Register dated 3/12/96}

Subpart WWW--Standards of Performance for Municipal Solid Waste Landfills

Sec.
60.750 Applicability, designation of affected facility, and delegation of authority.
60.751 Definitions.
60.752 Standards for air emissions from municipal solid waste landfills.
60.753 Operational standards for collection and control systems.
60.754 Test methods and procedures.
60.755 Compliance provisions.
60.756 Monitoring of operations.
60.757 Reporting requirements.
60.758 Recordkeeping requirements.
60.759 Specifications for active collection systems.

Subpart WWW--Standards of Performance for Municipal Solid Waste Landfills

§ 60.750 Applicability, designation of affected facility, and delegation of authority.

(a) The provisions of this subpart apply to each municipal solid waste landfill that commenced construction, reconstruction or modification on or after May 30, 1991. Physical or operational changes made to an existing MSW landfill solely to comply with Subpart Cc of this part are not considered construction, reconstruction, or modification for the purposes of this section.

(b) The following authorities shall be retained by the Administrator and not transferred to the State: § 60.754(a)(5).

(c) Activities required by or conducted pursuant to a CERCLA, RCRA, or State remedial action are not considered construction, reconstruction, or modification for purposes of this subpart.

§ 60.751 Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Act or in subpart A of this part.

Active collection system means a gas collection system that uses gas mover equipment.

Active landfill means a landfill in which solid waste is being placed or a landfill that is planned to accept waste in the future.

Closed landfill means a landfill in which solid waste is no longer being placed, and in which no additional solid wastes will be placed without first filing a notification of modification as prescribed under § 60.7(a)(4). Once a notification of modification has been filed, and additional solid waste is placed in the landfill, the landfill is no longer closed. A landfill is considered closed after meeting the criteria of § 258.60 of this title.

Closure means that point in time when a landfill becomes a closed landfill.

Commercial solid waste means all types of solid waste generated by stores, offices, restaurants, warehouses, and other nonmanufacturing activities, excluding residential and industrial wastes.

Controlled landfill means any landfill at which collection and control systems are required under this subpart as a result of the nonmethane organic compounds emission rate. The landfill is considered controlled at the time a collection and control system design plan is submitted in compliance with § 60.752(b)(2)(i).

Design capacity means the maximum amount of solid waste a landfill can accept, as indicated in terms of volume or mass in the most recent permit issued by the State, local, or Tribal agency responsible for regulating the landfill, plus any in-place waste not accounted for in the most recent permit. If the owner or operator chooses to convert the design capacity from volume to mass or from mass to volume to demonstrate its design capacity is less than 2.5 million megagrams or 2.5 million cubic meters, the calculation must include a site specific density, which must be recalculated annually.

Disposal facility means all contiguous land and structures, other appurtenances, and improvements on the land used for the disposal of solid waste.

Emission rate cutoff means the threshold annual emission rate to which a landfill compares its estimated emission rate to determine if control under the regulation is required.

Enclosed combustor means an enclosed firebox which maintains a relatively constant limited peak temperature generally using a limited supply of combustion air. An enclosed flare is considered an enclosed combustor.

Flare means an open combustor without enclosure or shroud.

Gas mover equipment means the equipment (i.e., fan, blower, compressor) used to transport landfill gas through the header system.

Household waste means any solid waste (including garbage, trash, and sanitary waste in septic tanks) derived from households (including, but not limited to, single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds, and day-use recreation areas).

Industrial solid waste means solid waste generated by manufacturing or industrial processes that is not a hazardous waste regulated under Subtitle C of the Resource Conservation and Recovery Act, parts 264 and 265 of this title. Such waste may include, but is not limited to, waste resulting from the following manufacturing processes: electric power generation; fertilizer/agricultural chemicals; food and related products/by-products; inorganic chemicals; iron and steel manufacturing; leather and leather products; nonferrous metals manufacturing/foundries; organic chemicals; plastics and resin manufacturing; pulp and paper industry; rubber and miscellaneous plastic products; stone, glass, clay, and concrete products; textile manufacturing; transportation equipment; and water treatment. This term does not include mining waste or oil and gas waste.

Interior well means any well or similar collection component located inside the perimeter of the landfill waste. A perimeter well located outside the landfilled waste is not an interior well.

Landfill means an area of land or an excavation in which wastes are placed for permanent disposal, and that is not a land application unit, surface impoundment, injection well, or waste pile as those terms are defined under § 257.2 of this title.

Lateral expansion means a horizontal expansion of the waste boundaries of an existing MSW landfill. A lateral expansion is not a modification unless it results in an increase in the design capacity of the landfill.

Modification means an increase in the permitted volume design capacity of the landfill by either horizontal or vertical expansion based on its permitted design capacity as of May 30, 1991. Modification does not occur until the owner or operator commences construction or the horizontal or vertical expansion.

Municipal solid waste landfill or MSW landfill means an entire disposal facility in a contiguous geographical space where household waste is placed in or on land. An MSW landfill may also receive other types of RCRA Subtitle D wastes (§ 257.2 of this title) such as commercial solid waste, nonhazardous sludge, conditionally exempt small quantity generator waste, and industrial solid waste. Portions of an MSW landfill may be separated by access roads. An MSW landfill may be publicly or privately owned. An MSW landfill may be a new MSW landfill, an existing MSW landfill, or a lateral expansion.

Municipal solid waste landfill emissions or MSW landfill emissions means gas generated by the decomposition of organic waste deposited in an MSW landfill or derived from the evolution of organic compounds in the waste.

NMOC means nonmethane organic compounds, as measured according to the provisions of § 60.754.

Nondegradable waste means any waste that does not decompose through chemical breakdown or microbiological activity. Examples are, but are not limited to, concrete, municipal waste combustor ash, and metals.

Passive collection system means a gas collection system that solely uses positive pressure within the landfill to move the gas rather than using gas mover equipment.

Sludge means any solid, semisolid, or liquid waste generated from a municipal, commercial, or industrial wastewater treatment plant, water supply treatment plant, or air pollution control facility, exclusive of the treated effluent from a wastewater treatment plant.

Solid waste means any garbage, sludge from a wastewater treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations, and from community activities, but does not include solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges that are point sources subject to permits under 33 U.S.C. 1342, or source, special nuclear, or by-product material as defined by the Atomic Energy Act of 1954, as amended (42 U.S.C 2011 et seq.).

Sufficient density means any number, spacing, and combination of collection system components, including vertical wells, horizontal collectors, and surface collectors, necessary to maintain emission and migration control as determined by measures of performance set forth in this part.

Sufficient extraction rate means a rate sufficient to maintain a negative pressure at all wellheads in the collection system without causing air infiltration, including any wellheads connected to the system as a result of expansion or excess surface emissions, for the
life of the blower.

§ 60.752 Standards for air emissions from municipal solid waste landfills.

(a) Each owner or operator of an MSW landfill having a design capacity less than 2.5 million megagrams by mass or 2.5 million cubic meters by volume shall submit an initial design capacity report to the Administrator as provided in § 60.757(a). The landfill may calculate design capacity in either megagrams or cubic meters for comparison with the exemption values. Any density conversions shall be documented and submitted with the report. Submittal of the initial design capacity report shall fulfill the requirements of this subpart except as provided for in paragraphs (a)(1) and (a)(2) of this section.

(1) The owner or operator shall submit to the Administrator an amended design capacity report, as provided for in § 60.757(a)(3).

(2) When an increase in the maximum design capacity of a landfill exempted from the provisions of § 60.752(b) through § 60.759 of this subpart on the basis of the design capacity exemption in paragraph (a) of this section results in a revised maximum design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters, the owner or operator shall comply with the provision of paragraph (b) of this section.

(b) Each owner or operator of an MSW landfill having a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters, shall either comply with paragraph (b)(2) of this section or calculate an NMOC emission rate for the landfill using the procedures specified in § 60.754. The NMOC emission rate shall be recalculated annually, except as provided in § 60.757(b)(1)(ii) of this subpart. The owner or operator of an MSW landfill subject to this subpart with a design capacity greater than or equal to 2.5 million megagrams and 2.5 million cubic meters is subject to part 70 or 71 permitting requirements.

(1) If the calculated NMOC emission rate is less than 50 megagrams per year, the owner or operator shall:

(i) Submit an annual emission report to the Administrator, except as provided for in § 60.757(b)(1)(ii); and

(ii) Recalculate the NMOC emission rate annually using the procedures specified in § 60.754(a)(1) until such time as the calculated NMOC emission rate is equal to or greater than 50 megagrams per year, or the landfill is closed.

(A) If the NMOC emission rate, upon recalculation required in paragraph (b)(1)(ii) of this section, is equal to or greater than 50 megagrams per year, the owner or operator shall install a collection and control system in compliance with paragraph (b)(2) of this section.

(B) If the landfill is permanently closed, a closure notification shall be submitted to the Administrator as provided for in § 60.757(d).

(2) If the calculated NMOC emission rate is equal to or greater than 50 megagrams per year, the owner or operator shall:

(i) Submit a collection and control system design plan prepared by a professional engineer to the Administrator within 1 year:

(A) The collection and control system as described in the plan shall meet the design requirements of paragraph (b)(2)(ii) of this section.

(B) The collection and control system design plan shall include any alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping or reporting provisions of §§ 60.753 through 60.758 proposed by the owner or operator.

(C) The collection and control system design plan shall either conform with specifications for active collection systems in § 60.759 or include a demonstration to the Administrator's satisfaction of the sufficiency of the alternative provisions to § 60.759.

(D) The Administrator shall review the information submitted under paragraphs (b)(2)(i) (A),(B) and (C) of this section and either approve it, disapprove it, or request that additional information be submitted. Because of the many site-specific factors involved with landfill gas system design, alternative systems may be necessary. A wide variety of system designs are possible, such as vertical wells, combination horizontal and vertical collection systems, or horizontal trenches only, leachate collection components, and passive systems.

(ii) Install a collection and control system that captures the gas generated within the landfill as required by paragraphs (b)(2)(ii)(A) or (B) and (b)(2)(iii) of this section within 30 months after the first annual report in which the emission rate equals or exceeds 50 megagrams per year, unless Tier 2 or Tier 3 sampling demonstrates that the emission rate is less than 50 megagrams per year, as specified in § 60.757(c)(1) or (2).

(A) An active collection system shall:

(1) Be designed to handle the maximum expected gas flow rate from the entire area of the landfill that warrants control over the intended use period of the gas control or treatment system equipment;

(2) Collect gas from each area, cell, or group of cells in the landfill in which the initial solid waste has been placed for a period of:

(i) 5 years or more if active; or

(ii) 2 years or more if closed or at final grade;

(3) Collect gas at a sufficient extraction rate;

(4) Be designed to minimize off-site migration of subsurface gas.

(B) A passive collection system shall:

(1) Comply with the provisions specified in paragraphs (b)(2)(ii)(A)(1), (2), and (2)(ii)(A)(4) of this section.

(2) Be installed with liners on the bottom and all sides in all areas in which gas is to be collected. The liners shall be installed as required under § 258.40 of this title.

(iii) Route all the collected gas to a control system that complies with the requirements in either paragraph (b)(2)(iii) (A), (B) or (C) of this section.

(A) An open flare designed and operated in accordance with § 60.18;

(B) A control system designed and operated to reduce NMOC by 98 weight-percent, or, when an enclosed combustion device is used for control, to either reduce NMOC by 98 weight percent or reduce the outlet NMOC concentration to less than 20 parts per million by volume, dry basis as hexane at 3 percent oxygen. The reduction efficiency or parts per million by volume shall be established by an initial performance test to be completed no later than 180 days after the initial startup of the approved control system using the test methods specified in § 60.754(d).

(1) If a boiler or process heater is used as the control device, the landfill gas stream shall be introduced into the flame zone.

(2) The control device shall be operated within the parameter ranges established during the initial or most recent performance test. The operating parameters to be monitored are specified in § 60.756;

(C) Route the collected gas to a treatment system that processes the collected gas for subsequent sale or use. All emissions from any atmospheric vent from the gas treatment system shall be subject to the requirements of paragraph (b)(2)(iii) (A) or (B) of this section.

(iv) Operate the collection and control device installed to comply with this subpart in accordance with the provisions of § § 60.753, 60.755 and 60.756.

(v) The collection and control system may be capped or removed provided that all the conditions of paragraphs (b)(2)(v) (A), (B), and (C) of this section are met:

(A) The landfill shall be a closed landfill as defined in § 60.751 of this subpart. A closure report shall be submitted to the Administrator as provided in § 60.757(d);

(B) The collection and control system shall have been in operation a minimum of 15 years; and

(C) Following the procedures specified in § 60.754(b) of this subpart, the calculated NMOC gas produced by the landfill shall be less than 50 megagrams per year on three successive test dates. The test dates shall be no less than 90 days apart, and no more than 180 days apart.

(c) For purposes of obtaining an operating permit under title V of the Act, the owner or operator of a MSW landfill subject to this subpart with a design capacity less than 2.5 million megagrams or 2.5 million cubic meters is not subject to the requirement to obtain an operating permit for the landfill under part 70 or 71 of this chapter, unless the landfill is otherwise subject to either part 70 or 71. For purposes of submitting a timely application for an operating permit under part 70 or 71, the owner or operator of a MSW landfill subject to this subpart with a design capacity greater than or equal to 2.5 million megagrams and 2.5 million cubic meters, and not otherwise subject to either part 70 or 71, becomes subject to the requirements of §§ 70.5(a)(1)(i) or 71.5(a)(1)(i) of this chapter, regardless of when the design capacity report is actually submitted, no later than:

(1) June 10, 1996 for MSW landfills that commenced construction, modification, or reconstruction on or after May 30, 1991 but before March 12, 1996;

(2) Ninety days after the date of commenced construction, modification, or reconstruction for MSW landfills that commence construction, modification, or reconstruction on or after March 12, 1996.

(d) When a MSW landfill subject to this subpart is closed, the owner or operator is no longer subject to the requirement to maintain an operating permit under part 70 or 71 of this chapter for the landfill if the landfill is not otherwise subject to the requirements of either part 70 or 71 and if either of the following conditions are met:

(1) The landfill was never subject to the requirement for a control system under paragraph (b)(2) of this section; or

(2) The owner or operator meets the conditions for control system removal specified in paragraph (b)(2)(v) of this section.

§ 60.753 Operational standards for collection and control systems.

Each owner or operator of an MSW landfill with a gas collection and control system used to comply with the provisions of § 60.752(b)(2)(ii) of this subpart shall:
(a) Operate the collection system such that gas is collected from each area, cell, or group of cells in the MSW landfill in which solid waste has been in place for:

(1) 5 years or more if active; or

(2) 2 years or more if closed or at final grade;

(b) Operate the collection system with negative pressure at each wellhead except under the following conditions:

(1) A fire or increased well temperature. The owner or operator shall record instances when positive pressure occurs in efforts to avoid a fire. These records shall be submitted with the annual reports as provided in § 60.757(f)(1);

(2) Use of a geomembrane or synthetic cover. The owner or operator shall develop acceptable pressure limits in the design plan;

(3) A decommissioned well. A well may experience a static positive pressure after shut down to accommodate for declining flows. All design changes shall be approved by the Administrator;

(c) Operate each interior wellhead in the collection system with a landfill gas temperature less than 55° C and with either a nitrogen level less than 20 percent or an oxygen level less than 5 percent. The owner or operator may establish a higher operating temperature, nitrogen, or oxygen value at a particular well. A higher operating value demonstration shall show supporting data that the elevated parameter does not cause fires or significantly inhibit anaerobic decomposition by killing methanogens.

(1) The nitrogen level shall be determined using Method 3C, unless an alternative test method is established as allowed by § 60.752(b)(2)(i) of this subpart.

(2) Unless an alternative test method is established as allowed by § 60.752(b)(2)(i) of this subpart, the oxygen shall be determined by an oxygen meter using Method 3A or 3C except that:

(i) The span shall be set so that the regulatory limit is between 20 and 50 percent of the span;

(ii) A data recorder is not required;

(iii) Only two calibration gases are required, a zero and span, and ambient air may be used as the span;

(iv) A calibration error check is not required;

(v) The allowable sample bias, zero drift, and calibration drift are ±10 percent.

(d) Operate the collection system so that the methane concentration is less than 500 parts per million above background at the surface of the landfill. To determine if this level is exceeded, the owner or operator shall conduct surface testing around the perimeter of the collection area and along a pattern that traverses the landfill at 30 meter intervals and where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover. The owner or operator may establish an alternative traversing pattern that ensures equivalent coverage. A surface monitoring design plan shall be developed that includes a topographical map with the monitoring route and the rationale for any site-specific deviations from the 30 meter intervals. Areas with steep slopes or other dangerous areas may be excluded from the surface testing.

(e) Operate the system such that all collected gases are vented to a control system designed and operated in compliance with § 60.752(b)(2)(iii). In the event the collection or control system is inoperable, the gas mover system shall be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere shall be closed within 1 hour; and

(f) Operate the control or treatment system at all times when the collected gas is routed to the system.

(g) If monitoring demonstrates that the operational requirement in paragraphs (b), (c), or (d) of this section are not met, corrective action shall be taken as specified in § 60.755(a) (3) through (5) or § 60.755(c) of this subpart. If corrective actions are taken as specified in § 60.755, the monitored exceedance is not a violation of the operational requirements in this section.

§ 60.754 Test methods and procedures.

(a) (1) The landfill owner or operator shall calculate the NMOC emission rate using either the equation provided in paragraph (a)(1)(i) of this section or the equation provided in paragraph (a)(1)(ii) of this section. Both equations may be used if the actual year-to-year solid waste acceptance rate is known, as specified in paragraph (a)(1)(i), for part of the life of the landfill and the actual year-to- year solid waste acceptance rate is unknown, as specified in paragraph (a)(1)(ii), for part of the life of the landfill. The values to be used in both equations are 0.05 per year for k, 170 cubic meters per megagram for L_o, and 4,000 parts per million by volume as hexane for the C_{NMOC}. For landfills located in geographical areas with a thirty year annual average precipitation of less than 25 inches, as measured at the nearest representative official meteorologic site, the k value to be used is 0.02 per year.

(i) The following equation shall be used if the actual year-to-year solid waste acceptance rate is known.

$$M_{NMOC} = \sum_{i=1}^{n} 2kL_oM_i\left(e^{-kt}i\right)\left(C_{NMOC}\right)\left(3.6X10^{-9}\right)$$

where,

M_{NMOC} = Total NMOC emission rate from the landfill, megagrams per year
k = methane generation rate constant, $year^{-1}$
L_o = methane generation potential, cubic meters per megagram solid waste
Mi = mass of solid waste in the i^{th} section, megagrams
t_i = age of the i^{th} section, years
C_{NMOC} = concentration of NMOC, parts per million by volume as hexane
3.6 x 10^{-9} = conversion factor
The mass of nondegradable solid waste may be subtracted from the total mass of solid waste in a particular section of the landfill when calculating the value for M_i if documentation of the nature and amount of such wastes is maintained.

(ii) The following equation shall be used if the actual year-to- year solid waste acceptance rate is unknown.

$$M_{NMOC} = 2L_o R (e^{-kc} - e^{-kt}) (C_{NMOC}) (3.6 \times 10^{-9})$$

where,

M_{NMOC} = mass emission rate of NMOC, megagrams per year
L_o = methane generation potential, cubic meters per megagram solid waste
R = average annual acceptance rate, megagrams per year

k = methane generation rate constant, $year^{-1}$
t = age of landfill, years
C_{NMOC} = concentration of NMOC, parts per million by volume as hexane
c = time since closure, years. For active landfill c = O and e^{-kc}=1
3.6 x 10^{-9} = conversion factor
The mass of nondegradable solid waste may be subtracted from the total mass of solid waste in a particular section of the landfill when calculating a value for R, if documentation of the nature and amount of such wastes is maintained.

(2) Tier 1. The owner or operator shall compare the calculated NMOC mass emission rate to the standard of 50 megagrams per year.

(i) If the NMOC emission rate calculated in paragraph (a)(1) of this section is less than 50 megagrams per year, then the landfill owner shall submit an emission rate report as provided in § 60.757(b)(1), and shall recalculate the NMOC mass emission rate annually as required under § 60.752(b)(1).

(ii) If the calculated NMOC emission rate is equal to or greater than 50 megagrams per year, then the landfill owner shall either comply with § 60.752(b)(2), or determine a site-specific NMOC concentration and recalculate the NMOC emission rate using the procedures provided in paragraph (a)(3) of this section.

(3) Tier 2. The landfill owner or operator shall determine the NMOC concentration using the following sampling procedure. The landfill owner or operator shall install at least two sample probes per hectare of landfill surface that has retained waste for at least 2 years. If the landfill is larger than 25 hectares in area, only 50 samples are required. The sample probes should be located to avoid known areas of nondegradable solid waste. The owner or operator shall collect and analyze one sample of landfill gas from each probe to determine the NMOC concentration using Method 25 or 25C of Appendix A of this part. Method 18 of Appendix A of this part may be used to analyze the samples collected by the Method 25 or 25C sampling procedure. Taking composite samples from different probes into a single cylinder is allowed; however, equal sample volumes must be taken from each probe. For each composite, the sampling rate, collection times, beginning and ending cylinder vacuums, or alternative volume measurements must be recorded to verify that composite volumes are equal. Composite sample volumes should not be less than one liter unless evidence can be provided to substantiate the accuracy of smaller volumes. Terminate compositing before the cylinder approaches ambient pressure where measurement accuracy diminishes. If using Method 18, the owner or operator must identify all compounds in the sample and, as a minimum, test for those compounds published in the most recent Compilation of Air Pollutant Emission Factors (AP-42), minus carbon monoxide, hydrogen sulfide, and mercury. As a minimum, the instrument must be calibrated for each of the compounds on the list. Convert the concentration of each Method 18 compound to CNMOC as hexane by multiplying by the ratio of its carbon atoms divided by six. If more than the required number of samples are taken, all samples must be used in the analysis. The landfill owner or operator must divide the NMOC concentration from Method 25 or 25C of Appendix A of this part by six to convert from CNMOC as carbon to CNMOC as hexane. If the landfill has an active or passive gas removal system in place, Method 25 or 25C samples may be collected from these systems instead of surface probes provided the removal system can be shown to provide sampling as representative as the two sampling probe per hectare requirement. For active collection systems, samples may be collected from the common header pipe before the gas moving or condensate removal equipment. For these systems, a minimum of three samples must be collected from the header pipe.

(i) The landfill owner or operator shall recalculate the NMOC mass emission rate using the equations provided in paragraph (a)(1)(i) or (a)(1)(ii) of this section and using the average NMOC concentration from the collected samples instead of the default value in the equation provided in paragraph (a)(1) of this section.

(ii) If the resulting mass emission rate calculated using the site-specific NMOC concentration is equal to or greater than 50 megagrams per year, then the landfill owner or operator shall either comply with

§ 60.752(b)(2), or determine the site-specific methane generation rate constant and recalculate the NMOC emission rate using the site-specific methane generation rate using the procedure specified in paragraph (a)(4) of this section.

(iii) If the resulting NMOC mass emission rate is less than 50 megagrams per year, the owner or operator shall submit a periodic estimate of the emission rate report as provided in § 60.757(b)(1) and retest the site-specific NMOC concentration every 5 years using the methods specified in this section.

(4) Tier 3. The site-specific methane generation rate constant shall be determined using the procedures provided in Method 2E of appendix A of this part. The landfill owner or operator shall estimate the NMOC mass emission rate using equations in paragraph (a)(1)(i) or (a)(1)(ii) of this section and using a site-specific methane generation rate constant k, and the site-specific NMOC concentration as determined in paragraph (a)(3) of this section instead of the default values provided in paragraph (a)(1) of this section. The landfill owner or operator shall compare the resulting NMOC mass emission rate to the standard of 50 megagrams per year.

(i) If the NMOC mass emission rate as calculated using the site-specific methane generation rate and concentration of NMOC is equal to or greater than 50 megagrams per year, the owner or operator shall comply with § 60.752(b)(2).

(ii) If the NMOC mass emission rate is less than 50 megagrams per year, then the owner or operator shall submit a periodic emission rate report as provided in § 60.757(b)(1) and shall recalculate the NMOC mass emission rate annually, as provided in § 60.757(b)(1) using the equations in paragraph (a)(1) of this section and using the site-specific methane generation rate constant and NMOC concentration obtained in paragraph (a)(3) of this section. The calculation of the methane generation rate constant is performed only once, and the value obtained from this test shall be used in all subsequent annual NMOC emission rate calculations.

(5) The owner or operator may use other methods to determine the NMOC concentration or a site-specific k as an alternative to the methods required in paragraphs (a)(3) and (a)(4) of this section if the method has been approved by the Administrator.

(b) After the installation of a collection and control system in compliance with § 60.755, the owner or operator shall calculate the NMOC emission rate for purposes of determining when the system can be removed as provided in § 60.752(b)(2)(v), using the following equation:

$$M_{NMOC} = 1.89 \times 10^{-3} Q_{LFG} C_{NMOC}$$

where,
M_{NMOC} = mass emission rate of NMOC, megagrams per year
Q_{LFG} = flow rate of landfill gas, cubic meters per minute
C_{NMOC} = NMOC concentration, parts per million by volume as hexane

(1) The flow rate of landfill gas, QLFG, shall be determined by measuring the total landfill gas flow rate at the common header pipe that leads to the control device using a gas flow measuring device calibrated according to the provisions of section 4 of Method 2E of appendix A of this part.

(2) The average NMOC concentration, CNMOC, shall be determined by collecting and analyzing landfill gas sampled from the common header pipe before the gas moving or condensate removal equipment using the procedures in Method 25C or Method 18 of appendix A of this part. If using Method 18 of appendix A of this part, the minimum list of compounds to be tested shall be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42). The sample location on the common header pipe shall be before any condensate removal or other gas refining units. The landfill owner or operator shall divide the NMOC concentration from Method 25C of appendix A of this part by six to convert from C_{NMOC} as carbon to C_{NMOC} as hexane.

(3) The owner or operator may use another method to determine landfill gas flow rate and NMOC concentration if the method has been approved by the Administrator.

(c) When calculating emissions for PSD purposes, the owner or operator of each MSW landfill subject to the provisions of this subpart shall estimate the NMOC emission rate for comparison to the PSD major source and significance levels in §§ 51.166 or 52.21 of this chapter using AP-42 or other approved measurement procedures.

(d) For the performance test required in § 60.752(b)(2)(iii)(B), Method 25, 25C or Method 18 of appendix A of this part shall be used to determine compliance with 98 weight-percent efficiency or the 20 ppmv outlet concentration level, unless another method to demonstrate compliance has been approved by the Administrator as provided by § 60.752(b)(2)(i)(B). Method 3 or 3A shall be used to determine oxygen for correcting the NMOC concentration as hexane to 3 percent. In cases where the outlet concentration is less than 50 ppm NMOC as carbon (8ppm NMOC as Hexane), Method 25A should be used in place of Method 25. If using Method 18 of appendix A of this part, the minimum list of compounds to be tested shall be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42). The following equation shall be used to calculate efficiency:

Control Efficiency = $(NMOC_{in} - NMOC_{out})/(NMOC_{in})$

where,
$NMOC_{in}$ = mass of NMOC entering control device
$NMOC_{out}$ = mass of NMOC exiting control device

§ 60.755 Compliance provisions.

(a) Except as provided in § 60.752(b)(2)(i)(B), the specified methods in paragraphs (a)(1) through (a)(6) of this section shall be used to determine whether the gas collection system is in compliance with § 60.752(b)(2)(ii).

(1) For the purposes of calculating the maximum expected gas generation flow rate from the landfill to determine compliance with § 60.752(b)(2)(ii)(A)(1), one of the following equations shall be used. The k and L_o kinetic factors should be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42) or other site specific values demonstrated to be appropriate and approved by the Administrator. If k has been determined as specified in § 60.754(a)(4), the value of k determined from the test shall be used. A value of no more than 15 years shall be used for the intended use period of the gas mover equipment. The active life of the landfill is the age of the landfill plus the estimated number of years until closure.

(i) For sites with unknown year-to-year solid waste acceptance rate:

$$Q_m = 2L_o R (e^{-kc} - e^{-kt})$$

where,

Q_m = maximum expected gas generation flow rate, cubic meters per year
L_o = methane generation potential, cubic meters per megagram solid waste
R = average annual acceptance rate, megagrams per year
k = methane generation rate constant, $year^{-1}$
t = age of the landfill at equipment installation plus the time the owner or operator intends to use the gas mover equipment or active life of the landfill, whichever is less. If the equipment is installed after closure, t is the age of the landfill at installation, years
c = time since closure, years (for an active landfill c = O and $e^{-kc} = 1$)

(ii) For sites with known year-to-year solid waste acceptance rate:

$$Q_M = \sum_{i=1}^{n} 2kLoMi\left(e^{-kt}i\right)$$

where,

Q_M = maximum expected gas generation flow rate, cubic meters per year
k = methane generation rate constant, year^{-1}
L_o = methane generation potential, cubic meters per megagram solid waste
M_i = mass of solid waste in the i^{th} section, megagrams
t_i = age of the i^{th} section, years

(iii) If a collection and control system has been installed, actual flow data may be used to project the maximum expected gas generation flow rate instead of, or in conjunction with, the equations in paragraphs (a)(1) (i) and (ii) of this section. If the landfill is still accepting waste, the actual measured flow data will not equal the maximum expected gas generation rate, so calculations using the equations in paragraphs (a)(1) (i) or (ii) or other methods shall be used to predict the maximum expected gas generation rate over the intended period of use of the gas control system equipment.

(2) For the purposes of determining sufficient density of gas collectors for compliance with § 60.752(b)(2)(ii)(A)(2), the owner or operator shall design a system of vertical wells, horizontal collectors, or other collection devices, satisfactory to the Administrator, capable of controlling and extracting gas from all portions of the landfill sufficient to meet all operational and performance standards.

(3) For the purpose of demonstrating whether the gas collection system flow rate is sufficient to determine compliance with § 60.752(b)(2)(ii)(A)(3), the owner or operator shall measure gauge pressure in the gas collection header at each individual well, monthly. If a positive pressure exists, action shall be initiated to correct the exceedance within 5 calendar days, except for the three conditions allowed under § 60.753(b). If negative pressure cannot be achieved without excess air infiltration within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial measurement of positive pressure. Any attempted corrective measure shall not cause exceedances of other operational or performance standards. An alternative timeline for correcting the exceedence may be submitted to the Administrator for approval.

(4) Owners or operators are not required to expand the system as required in paragraph (a)(3) of this section during the first 180 days after gas collection system startup.

(5) For the purpose of identifying whether excess air infiltration into the landfill is occurring, the owner or operator shall monitor each well monthly for temperature and nitrogen or oxygen as provided in § 60.753(c). If a well exceeds one of these operating parameters, action shall be initiated to correct the exceedance within 5 calendar days. If correction of the exceedance cannot be achieved within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial exceedance. Any attempted corrective measure shall not cause exceedances of other operational or performance standards. An alternative timeline for correcting the exceedence may be submitted to the Administrator for approval.

(6) An owner or operator seeking to demonstrate compliance with § 60.752(b)(2)(ii)(A)(4) through the use of a collection system not conforming to the specifications provided in § 60.759 shall provide information satisfactory to the Administrator as specified in § 60.752(b)(2)(i)(C) demonstrating that off-site migration is being controlled.

(b) For purposes of compliance with § 60.753(a), each owner or operator of a controlled landfill shall place each well or design component as specified in the approved design plan as provided in § 60.752(b)(2)(i). Each

well shall be installed no later than 60 days after the date on which the initial solid waste has been in place for a period of:

(1) 5 years or more if active; or

(2) 2 years or more if closed or at final grade.

(c) The following procedures shall be used for compliance with the surface methane operational standard as provided in § 60.753(d).

(1) After installation of the collection system, the owner or operator shall monitor surface concentrations of methane along the entire perimeter of the collection area and along a pattern that traverses the landfill at 30 meter intervals (or a site-specific established spacing) for each collection area on a quarterly basis using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in paragraph (d) of this section.

(2) The background concentration shall be determined by moving the probe inlet upwind and downwind outside the boundary of the landfill at a distance of at least 30 meters from the perimeter wells.

(3) Surface emission monitoring shall be performed in accordance with section 4.3.1 of Method 21 of appendix A of this part, except that the probe inlet shall be placed within 5 to 10 centimeters of the ground. Monitoring shall be performed during typical meteorological conditions.

(4) Any reading of 500 parts per million or more above background at any location shall be recorded as a monitored exceedance and the actions specified in paragraphs (c)(4) (i) through (v) of this section shall be taken. As long as the specified actions are taken, the exceedance is not a violation of the operational requirements of § 60.753(d).

(i) The location of each monitored exceedance shall be marked and the location recorded.

(ii) Cover maintenance or adjustments to the vacuum of the adjacent wells to increase the gas collection in the vicinity of each exceedance shall be made and the location shall be re-monitored within 10 calendar days of detecting the exceedance.

(iii) If the re-monitoring of the location shows a second exceedance, additional corrective action shall be taken and the location shall be monitored again within 10 days of the second exceedance. If the re-monitoring shows a third exceedance for the same location, the action specified in paragraph (c)(4)(v) of this section shall be taken, and no further monitoring of that location is required until the action specified in paragraph (c)(4)(v) has been taken.

(iv) Any location that initially showed an exceedance but has a methane concentration less than 500 ppm methane above background at the 10-day re-monitoring specified in paragraph (c)(4) (ii) or (iii) of this section shall be re-monitored 1 month from the initial exceedance. If the 1-month remonitoring shows a concentration less than 500 parts per million above background, no further monitoring of that location is required until the next quarterly monitoring period. If the 1-month remonitoring shows an exceedance, the actions specified in paragraph (c)(4) (iii) or (v) shall be taken.

(v) For any location where monitored methane concentration equals or exceeds 500 parts per million above background three times within a quarterly period, a new well or other collection device shall be installed within 120 calendar days of the initial exceedance. An alternative remedy to the exceedance, such as upgrading the blower, header pipes or control device, and a corresponding timeline for installation may be submitted to the Administrator for approval.

(5) The owner or operator shall implement a program to monitor for cover integrity and implement cover repairs as necessary on a monthly basis.

(d) Each owner or operator seeking to comply with the provisions in paragraph (c) of this section shall comply with the following instrumentation specifications and procedures for surface emission monitoring devices:

(1) The portable analyzer shall meet the instrument specifications provided in section 3 of Method 21 of appendix A of this part, except that ``methane" shall replace all references to VOC.

(2) The calibration gas shall be methane, diluted to a nominal concentration of 500 parts per million in air.

(3) To meet the performance evaluation requirements in section 3.1.3 of Method 21 of appendix A of this part, the instrument evaluation procedures of section 4.4 of Method 21 of appendix A of this part shall be used.

(4) The calibration procedures provided in section 4.2 of Method 21 of appendix A of this part shall be followed immediately before commencing a surface monitoring survey.

(e) The provisions of this subpart apply at all times, except during periods of start-up, shutdown, or malfunction, provided that the duration of start-up, shutdown, or malfunction shall not exceed 5 days for collection systems and shall not exceed 1 hour for treatment or control devices.

§ 60.756 Monitoring of operations.

Except as provided in § 60.752(b)(2)(i)(B),

(a) Each owner or operator seeking to comply with § 60.752(b)(2)(ii)(A) for an active gas collection system shall install a sampling port and a thermometer other temperature measuring device, or an access port for temperature measurements at each wellhead and:

(1) Measure the gauge pressure in the gas collection header on a monthly basis as provided in § 60.755(a)(3); and

(2) Monitor nitrogen or oxygen concentration in the landfill gas on a monthly basis as provided in § 60.755(a)(5); and

(3) Monitor temperature of the landfill gas on a monthly basis as provided in § 60.755(a)(5).

(b) Each owner or operator seeking to comply with § 60.752(b)(2)(iii) using an enclosed combustor shall calibrate, maintain, and operate according to the manufacturer's specifications, the following equipment.

(1) A temperature monitoring device equipped with a continuous recorder and having a minimum accuracy of ±1 percent of the temperature being measured expressed in degrees Celsius or ±0.5 degrees C, whichever is greater. A temperature monitoring device is not required for boilers or process heaters with design heat input capacity equal to or greater than 44 megawatts.

(2) A device that records flow to or bypass of the control device. The owner or operator shall either:

(i) Install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device at least every 15 minutes; or

(ii) Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.

(c) Each owner or operator seeking to comply with § 60.752(b)(2)(iii) using an open flare shall install, calibrate, maintain, and operate according to the manufacturer's specifications the following equipment:

(1) A heat sensing device, such as an ultraviolet beam sensor or thermocouple, at the pilot light or the flame itself to indicate the continuous presence of a flame.

(2) A device that records flow to or bypass of the flare. The owner or operator shall either:

(i) Install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device at least every 15 minutes; or

(ii) Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.

(d) Each owner or operator seeking to demonstrate compliance with § 60.752(b)(2)(iii) using a device other than an open flare or an enclosed combustor shall provide information satisfactory to the Administrator as provided in § 60.752(b)(2)(i)(B) describing the operation of the control device, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The Administrator shall review the information and either approve it, or request that additional information be submitted. The Administrator may specify additional appropriate monitoring procedures.

(e) Each owner or operator seeking to install a collection system that does not meet the specifications in § 60.759 or seeking to monitor alternative parameters to those required by § 60.753 through § 60.756 shall provide information satisfactory to the Administrator as provided in § 60.752(b)(2)(i) (B) and (C) describing the design and operation of the collection system, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The Administrator may specify additional appropriate monitoring procedures.

(f) Each owner or operator seeking to demonstrate compliance with § 60.755(c), shall monitor surface concentrations of methane according to the instrument specifications and procedures provided in § 60.755(d). Any closed landfill that has no monitored exceedances of the operational standard in three consecutive quarterly monitoring periods may skip to annual monitoring. Any methane reading of 500 ppm or more above background detected during the annual monitoring returns the frequency for that landfill to quarterly monitoring.

§ 60.757 Reporting requirements.

Except as provided in § 60.752(b)(2)(i)(B),
(a) Each owner or operator subject to the requirements of this subpart shall submit an initial design capacity report to the Administrator.

(1) The initial design capacity report shall fulfill the requirements of the notification of the date construction is commenced as required by § 60.7(a)(1) and shall be submitted no later than:

(i) June 10, 1996, for landfills that commenced construction, modification, or reconstruction on or after May 30, 1991 but before March 12, 1996 or

(ii) Ninety days after the date of commenced construction, modification, or reconstruction for landfills that commence construction, modification, or reconstruction on or after March 12, 1996.

(2) The initial design capacity report shall contain the following information:

(i) A map or plot of the landfill, prroviding the size and location of the landfill, and identifying all areas where solid waste may be landfilled according to the permit issued by the State, local, or tribal agency responsible for regulating the landfill.

(ii) The maximum design capacity of the landfill. Where the maximum design capacity is specified in the permit issued by the State, local, or tribal agency responsible for regulating the landfill, a copy of the permit specifying the maximum design capacity may be submitted as part of the report. If the maximum design capacity of the landfill is not specified in the permit, the maximum design capacity shall be calculated using good engineering practices. The calculations shall be provided, along with the relevant parameters as part of the report. The State, Tribal, local agency or Administrator may request other reasonable information as may be necessary to verify the maximum design capacity of the landfill.

(3) An amended design capacity report shall be submitted to the Administrator providing notification of an increase in the design capacity of the landfill, within 90 days of an increase in the maximum design capacity of the landfill to or above 2.5 million megagrams and 2.5 million cubic meters. This increase in design capacity may result from an increase in the permitted volume of the landfill or an increase in the density as documented in the annual recalculation required in § 60.758(f).

(b) Each owner or operator subject to the requirements of this subpart shall submit an NMOC emission rate report to the Administrator initially and annually thereafter, except as provided for in paragraphs (b)(1)(ii) or (b)(3) of this section. The Administrator may request such additional information as may be necessary to verify the reported NMOC emission rate.

(1) The NMOC emission rate report shall contain an annual or 5-year estimate of the NMOC emission rate calculated using the formula and procedures provided in § 60.754(a) or (b), as applicable.

(i) The initial NMOC emission rate reeport may be combined with the initial design capacity report required in paragraph (a) of this section and shall be submitted no later than indicated in paragraphs (b)(1)(i)(A) and (B) of this section. Subsequent NMOC emission rate reports shall be submitted annually thereafter, except as provided for in paragraphs (b)(1)(ii) and (b)(3) of this section.

(A) June 10, 1996, for landfills that commenced construction, modification, or reconstruction on or after May 30, 1991, but before March 12, 1996, or

(B) Ninety days after the date of commenced construction, modification, or reconstruction for landfills that commence construction, modification, or reconstruction on or after March 12, 1996.

(ii) If the estimated NMOC emission rate as reported in the annual report to the Administrator is less than 50 megagrams per year in each of the next 5 consecutive years, the owner or operator may elect to submit an estimate of the NMOC emission rate for the next 5-year period in lieu of the annual report. This estimate shall include the current amount of solid waste-in-place and the estimated waste acceptance rate for each year of the 5 years for which an NMOC emission rate is estimated. All data and calculations upon which this estimate is based shall be provided to the Administrator. This estimate shall be revised at least once every 5 years. If the actual waste acceptance rate exceeds the estimated waste acceptance rate in any year reported in the 5-year estimate, a revised 5-year estimate shall be submitted to the Administrator. The revised estimate shall cover the 5-year period beginning with the year in which the actual waste acceptance rate exceeded the estimated waste acceptance rate.

(2) The NMOC emission rate report shall include all the data, calculations, sample reports and measurements used to estimate the annual or 5-year emissions.

(3) Each owner or operator subject to the requirements of this subpart is exempted from the requirements of paragraphs (b)(1) and (2) of this section, after the installation of a collection and control system in compliance with § 60.752(b)(2), during such time as the collection and control system is in operation and in compliance with § § 60.753 and 60.755.

(c) Each owner or operator subject to the provisions of § 60.752(b)(2)(i) shall submit a collection and control system design plan to the Administrator within 1 year of the first report required under paragraph (b) of this section, in which the emission rate exceeds 50 megagrams per year, except as follows:

(1) If the owner or operator elects to recalculate the NMOC emission rate after Tier 2 NMOC sampling and analysis as provided in § 60.754(a)(3) and the resulting rate is less than 50 megagrams per year, annual periodic reporting shall be resumed, using the Tier 2 determined site-specific NMOC concentration, until the calculated emission rate is equal to or greater than 50 megagrams per year or the landfill is closed. The revised NMOC emission rate report, with the recalculated emission rate based on NMOC sampling and analysis, shall be submitted within 180 days of the first calculated exceedance of 50 megagrams per year.

(2) If the owner or operator elects to recalculate the NMOC emission rate after determining a site-specific methane generation rate constant (k), as provided in Tier 3 in § 60.754(a)(4), and the resulting NMOC emission rate is less than 50 Mg/yr, annual periodic reporting shall be resumed. The resulting site-specific methane generation rate constant (k) shall be used in the emission rate calculation until such time as the emissions rate calculation results in an exceedance. The revised NMOC emission rate report based on the provisions of § 60.754(a)(4) and the resulting site-specific methane generation rate constant (k) shall be submitted to the Administrator within 1 year of the first calculated emission rate exceeding 50 megagrams per year.

(d) Each owner or operator of a controlled landfill shall submit a closure report to the Administrator within 30 days of waste acceptance cessation. The Administrator may request additional information as may be necessary to verify that permanent closure has taken place in accordance with the requirements of 40 CFR 258.60. If a closure report has been submitted to the Administrator, no additional wastes may be placed into the landfill without filing a notification of modification as described under § 60.7(a)(4).

(e) Each owner or operator of a controlled landfill shall submit an equipment removal report to the Administrator 30 days prior to removal or cessation of operation of the control equipment.

(1) The equipment removal report shall contain all of the following items:

(i) A copy of the closure report submitted in accordance with paragraph (d) of this section;

(ii) A copy of the initial performance test report demonstrating that the 15 year minimum control period has expired; and

(iii) Dated copies of three successive NMOC emission rate reports demonstrating that the landfill is no longer producing 50 megagrams or greater of NMOC per year.

(2) The Administrator may request such additional information as may be necessary to verify that all of the conditions for removal in § 60.752(b)(2)(v) have been met.

(f) Each owner or operator of a landfill seeking to comply with § 60.752(b)(2) using an active collection system designed in accordance with § 60.752(b)(2)(ii) shall submit to the Administrator annual reports of the recorded information in (f)(1) through (f)(6) of this paragraph. The initial annual report shall be submitted within 180 days of installation and start-up of the collection and control system, and shall include the initial performance test report required under § 60.8. For enclosed combustion devices and flares, reportable exceedances are defined under § 60.758(c).

(1) Value and length of time for exceedance of applicable parameters monitored under § 60.756(a), (b), (c), and (d).

(2) Description and duration of all periods when the gas stream is diverted from the control device through a bypass line or the indication of bypass flow as specified under § 60.756.

(3) Description and duration of all periods when the control device was not operating for a period exceeding 1 hour and length of time the control device was not operating.

(4) All periods when the collection system was not operating in excess of 5 days.

(5) The location of each exceedance of the 500 parts per million methane concentration as provided in § 60.753(d) and the concentration recorded at each location for which an exceedance was recorded in the previous month.

(6) The date of installation and the location of each well or collection system expansion added pursuant to paragraphs (a)(3), (b), and (c)(4) of § 60.755.

(g) Each owner or operator seeking to comply with § 60.752(b)(2)(iii) shall include the following information with the initial performance test report required under § 60.8:

(1) A diagram of the collection system showing collection system positioning including all wells, horizontal collectors, surface collectors, or other gas extraction devices, including the locations of any areas excluded from collection and the proposed sites for the future collection system expansion;

(2) The data upon which the sufficient density of wells, horizontal collectors, surface collectors, or other gas extraction devices and the gas mover equipment sizing are based;

(3) The documentation of the presence of asbestos or nondegradable material for each area from which collection wells have been excluded based on the presence of asbestos or nondegradable material;

(4) The sum of the gas generation flow rates for all areas from which collection wells have been excluded based on nonproductivity and the calculations of gas generation flow rate for each excluded area; and

(5) The provisions for increasing gas mover equipment capacity with increased gas generation flow rate, if the present gas mover equipment is inadequate to move the maximum flow rate expected over the life of the landfill; and

(6) The provisions for the control of off-site migration.

§ 60.758 Recordkeeping requirements.

(a) Except as provided in § 60.752(b)(2)(i)(B), each owner or operator of an MSW landfill subject to the provisions of § 60.752(b) shall keep for at least 5 years up-to-date, readily accessible, on-site records of the design capacity report which triggered § 60.752(b), the current amount of solid waste in-place, and the year-by-year waste acceptance rate. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable.

(b) Except as provided in § 60.752(b)(2)(i)(B), each owner or operator of a controlled landfill shall keep up-to-date, readily accessible records for the life of the control equipment of the data listed in paragraphs (b)(1) through (b)(4) of this section as measured during the initial performance test or compliance determination. Records of subsequent tests or monitoring shall be maintained for a minimum of 5 years. Records of the control device vendor specifications shall be maintained until removal.

(1) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with § 60.752(b)(2)(ii):

(i) The maximum expected gas generation flow rate as calculated in § 60.755(a)(1). The owner or operator may use another method to determine the maximum gas generation flow rate, if the method has been approved by the Administrator.

(ii) The density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in § 60.759(a)(1).

(2) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with § 60.752(b)(2)(iii) through use of an enclosed combustion device other than a boiler or process heater with a design heat input capacity greater than 44 megawatts:

(i) The average combustion temperature measured at least every 15 minutes and averaged over the same time period of the performance test.

(ii) The percent reduction of NMOC determined as specified in § 60.752(b)(2)(iii)(B) achieved by the control device.

(3) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with § 60.752(b)(2)(iii)(B)(1) through use of a boiler or process heater of any size: a description of the location at which the collected gas vent stream is introduced into the boiler or process heater over the same time period of the performance testing.

(4) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with § 60.752(b)(2)(iii)(A) through use of an open flare, the flare type (i.e., steam-assisted, air-assisted, or nonassisted), all visible emission readings, heat content determination, flow rate or bypass flow rate measurements, and exit velocity determinations made during the performance test as specified in § 60.18; continuous records of the flare pilot flame or flare flame monitoring and records of all periods of operations during which the pilot flame of the flare flame is absent.

(c) Except as provided in § 60.752(b)(2)(i)(B), each owner or operator of a controlled landfill subject to the provisions of this subpart shall keep for 5 years up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored in § 60.756 as well as up-to-date, readily accessible records for periods of operation during which the parameter boundaries established during the most recent performance test are exceeded.

(1) The following constitute exceedances that shall be recorded and reported under § 60.757(f):

(i) For enclosed combustors except for boilers and process heaters with design heat input capacity of 44 megawatts (150 million British thermal unit per hour) or greater, all 3-hour periods of operation during which the average combustion temperature was more than 28 °C below the average combustion temperature during the most recent performance test at which compliance with § 60.752(b)(2)(iii) was determined.

(ii) For boilers or process heaters, whenever there is a change in the location at which the vent stream is introduced into the flame zone as required under paragraph (b)(3) of this section.

(2) Each owner or operator subject to the provisions of this subpart shall keep up-to-date, readily accessible continuous records of the indication of flow to the control device or the indication of bypass flow or records of monthly inspections of car-seals or lock-and-key configurations used to seal bypass lines, specified under § 60.756.

(3) Each owner or operator subject to the provisions of this subpart who uses a boiler or process heater with a design heat input capacity of 44 megawatts or greater to comply with § 60.752(b)(2)(iii) shall keep an up-to-date, readily accessible record of all periods of operation of the boiler or process heater. (Examples of such records could include records of steam use, fuel use, or monitoring data collected pursuant to other State, local, Tribal, or Federal regulatory requirements.)

(4) Each owner or operator seeking to comply with the provisions of this subpart by use of an open flare shall keep up-to-date, readily accessible continuous records of the flame or flare pilot flame monitoring specified under § 60.756(c), and up-to-date, readily accessible records of all periods of operation in which the flame or flare pilot flame is absent.

(d) Except as provided in § 60.752(b)(2)(i)(B), each owner or operator subject to the provisions of this subpart shall keep for the life of the collection system an up-to-date, readily accessible plot map showing each existing and planned collector in the system and providing a unique identification location label for each collector.

(1) Each owner or operator subject to the provisions of this subpart shall keep up-to-date, readily accessible records of the installation date and location of all newly installed collectors as specified under § 60.755(b).

(2) Each owner or operator subject to the provisions of this subpart shall keep readily accessible documentation of the nature, date of deposition, amount, and location of asbestos-containing or nondegradable waste excluded from collection as provided in § 60.759(a)(3)(i) as well as any nonproductive areas excluded from collection as provided in § 60.759(a)(3)(ii).

(e) Except as provided in § 60.752(b)(2)(i)(B), each owner or operator subject to the provisions of this subpart shall keep for at least 5 years up-to-date, readily accessible records of all collection and control system exceedances of the operational standards in § 60.753, the reading in the subsequent month whether or not the second reading is an exceedance, and the
location of each exceedance.

(f) Landfill owners or operators who convert design capacity from volume to mass or mass to volume to demonstrate that landfill design capacity is less than 2.5 million megagrams or 2.5 million cubic meters, as provided in the definition of ``design capacity", shall keep readily accessible, on-site records of the annual recalculation of site-specific density, design capacity, and the supporting documentation. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable.

§ 60.759 Specifications for active collection systems.

(a) Each owner or operator seeking to comply with § 60.752(b)(2)(i) shall site active collection wells, horizontal collectors, surface collectors, or other extraction devices at a sufficient density throughout all gas producing areas using the following procedures unless alternative procedures have been approved

by the Administrator as provided in § 60.752(b)(2)(i)(C) and (D):

(1) The collection devices within the interior and along the perimeter areas shall be certified to achieve comprehensive control of surface gas emissions by a professional engineer. The following issues shall be addressed in the design: depths of refuse, refuse gas generation rates and flow characteristics, cover properties, gas system expandibility, leachate and condensate management, accessibility, compatibility with filling operations, integration with closure end use, air intrusion control, corrosion resistance, fill settlement, and resistance to the refuse decomposition heat.

(2) The sufficient density of gas collection devices determined in paragraph (a)(1) of this section shall address landfill gas migration issues and augmentation of the collection system through the use of active or passive systems at the landfill perimeter or exterior.

(3) The placement of gas collection devices determined in paragraph (a)(1) of this section shall control all gas producing areas, except as provided by paragraphs (a)(3)(i) and (a)(3)(ii) of this section.

(i) Any segregated area of asbestos or nondegradable material may be excluded from collection if documented as provided under § 60.758(d). The documentation shall provide the nature, date of deposition, location and amount of asbestos or nondegradable material deposited in the area, and shall be provided to the Administrator upon request.

(ii) Any nonproductive area of the landfill may be excluded from control, provided that the total of all excluded areas can be shown to contribute less than 1 percent of the total amount of NMOC emissions from the landfill. The amount, location, and age of the material shall be documented and provided to the Administrator upon request. A separate NMOC emissions estimate shall be made for each section proposed for exclusion, and the sum of all such sections shall be compared to the NMOC emissions estimate for the entire landfill. Emissions from each section shall be computed using the following equation:

$$Q_i = 2\ k\ L_o\ M_i\ (e^{-kt}i)\ (C_{NMOC})\ (3.6\ \times\ 10^{-9})$$

where,

Q_i = NMOC emission rate from the ith section, megagrams per year
k = methane generation rate constant, $year^{-1}$
L_o = methane generation potential, cubic meters per megagram solid waste
M_i = mass of the degradable solid waste in the i^{th} section, megagram
t_i = age of the solid waste in the i^{th} section, years
C_{NMOC} = concentration of nonmethane organic compounds, parts per million by volume
3.6×10^{-9} = conversion factor

(iii) The values for k and C_{NMOC} determined in field testing shall be used if field testing has been performed in determining the NMOC emission rate or the radii of influence (the distance from the well center to a point in the landfill where the pressure gradient applied by the blower or compressor approaches zero). If field testing has not been performed, the default values for k, L_O and C_{NMOC} provided in § 60.754(a)(1) or the alternative values from § 60.754(a)(5) shall be used. The mass of nondegradable solid waste contained within the given section may be subtracted from the total mass of the section when estimating emissions provided the nature, location, age, and amount of the nondegradable material is documented as provided in paragraph (a)(3)(i) of this section.

(b) Each owner or operator seeking to comply with § 60.752(b)(2)(i)(A) shall construct the gas collection devices using the following equipment or procedures:

(1) The landfill gas extraction components shall be constructed of polyvinyl chloride (PVC), high density polyethylene (HDPE) pipe, fiberglass, stainless steel, or other nonporous corrosion resistant material of suitable dimensions to: convey projected amounts of gases; withstand installation, static, and settlement forces; and withstand planned overburden or traffic loads. The collection system shall extend as necessary to comply with emission and migration standards. Collection devices such as wells and horizontal collectors

shall be perforated to allow gas entry without head loss sufficient to impair performance across the intended extent of control. Perforations shall be situated with regard to the need to prevent excessive air infiltration.

(2) Vertical wells shall be placed so as not to endanger underlying liners and shall address the occurrence of water within the landfill. Holes and trenches constructed for piped wells and horizontal collectors shall be of sufficient cross-section so as to allow for their proper construction and completion including, for example, centering of pipes and placement of gravel backfill. Collection devices shall be designed so as not to allow indirect short circuiting of air into the cover or refuse into the collection system or gas into the air. Any gravel used around pipe perforations should be of a dimension so as not to penetrate or block perforations.

(3) Collection devices may be connected to the collection header pipes below or above the landfill surface. The connector assembly shall include a positive closing throttle valve, any necessary seals and couplings, access couplings and at least one sampling port. The collection devices shall be constructed of PVC, HDPE, fiberglass, stainless steel, or other nonporous material of suitable thickness.

(c) Each owner or operator seeking to comply with § 60.752(b)(2)(i)(A) shall convey the landfill gas to a control system in compliance with § 60.752(b)(2)(iii) through the collection header pipe(s). The gas mover equipment shall be sized to handle the maximum gas generation flow rate expected over the intended use period of the gas moving equipment using the following procedures:

(1) For existing collection systems, the flow data shall be used to project the maximum flow rate. If no flow data exists, the procedures in paragraph (c)(2) of this section shall be used.

(2) For new collection systems, the maximum flow rate shall be in accordance with § 60.755(a)(1).

Memorandum

Florida Department of
Environmental Protection

TO: Howard L. Rhodes

THRU: Trina Vielhauer
Al Linero 4/10

FROM: Teresa Heron/Syed Arif

DATE: April 10, 2003

SUBJECT Omni Waste of Osceola County
Oak Hammond Disposal (OHD) Facility
Municipal Solid Waste Class I Landfill with two Flare Systems

Attached is the Final permit package for the Omni Waste's OHD facility. This permitting action is for the construction of Phase I of a municipal solid waste landfill with up to two flares. The OHD facility site comprises over 2000 acres.

The complete build-out of the OHD facility includes 21 landfill cells with a total footprint of approximately 264 acres. This landfill will be constructed in six phases. This air construction permit is for Phase I. This Phase includes four landfill cells with a total footprint of approximately 53 acres and ancillary facilities supporting the operation of the landfill. This Phase I also includes two flares.

We have included provisions that insure the project will not trigger PSD during Phase I. We consulted with EPA regarding the proper approach on the matter. We clarified in the write-up that the project will not be exempt from PSD on the basis of our Pollution Control Project Exemption Rule. The reason is that installation of the landfill collection and flare system is actually caused by present day construction of the new landfill and reasonable assurance that odor will be controlled and not solely by a future requirement to comply with 40 CFR 60, Subpart WWW. This interpretation of our rule treats the Subpart as the minimum requirement under any future PSD/BACT determination.

We recommend your approval.

Attachments

GeoSyntec Consultants

14055 Riveredge Drive, Suite 300
Tampa, Florida 33637 USA
Telephone: (813) 558-0990
Telefax: (813) 558-9726

FAX COVER SHEET

To: Ms. TERESA HERON

Firm: BUREAU OF AIR REGULATION

Fax No.: 850-921-9533

From: KEN CARGILL Project No.: FW0400 / TASK 13

Cover page plus _____ pages following.

Sent by: A. GUPTA Date: 8 APRIL 2003 Time: 5:05PM

MESSAGE

THE MODIFICATIONS TO "ITEM 4" ARE ATTACHED.

Acton, MA Office: (978) 263-9588
Austin, TX Office: (512) 451-4003
Chicago, IL Office: (312) 658-0500
Guelph, Canada Office: (519) 822-2230
Portland, OR Office: (503) 222-90518
San Diego, CA Office: (619) 674-6559
Tampa, FL Office: (813) 558-0990
Walnut Creek, CA Office: (925) 943-3034
Atlanta, GA Office: (404) 705-9500
Boca Raton, FL Office: (561) 995-0900
Columbia, MD Office: (410) 381-4333
Huntington Beach, CA Office: (714) 969-0800
Santa Barbara, CA Office: (805) 897-3800
Seattle, Washington Office: (206) 985-6963
Soil Geosynthetic Lab: (404) 705-9500

8 April 2003

Mr. Allen A. Linero
Program Administrator, Bureau of Air Regulation
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Subject: Comments Related to the Draft Air Construction Permit
DEP File No. 0970079-001-AC
Oak Hammock Disposal (OHD) Facility
Omni Waste of Osceola County, LLC (Omni)
Osceola County, Florida

As requested, the suggested modifications to Item 4 (as in our previous letter dated 31 March 2003 to FDEP) are included below:

Item 4:

Special Condition # 6, Page 9 of 10, Draft ACP

Visible Emissions: Compliance……The required visible emissions test report shall also contain the extraction wells gas flow rate and the flare temperature data.

Requested Modifications

Visible Emissions: Compliance……The required visible emissions test report shall also contain the ~~extraction wells~~ flare gas flow rate and ~~the flare~~ temperature data.

Special Condition # 13, Page 10 of 10, Draft ACP

Continuous Monitoring: Proper devices for the continuous monitoring and recording of the total gas flow rate from all extraction wells, and each flare flame temperature, shall be……

Requested Modifications

Continuous Monitoring: Proper devices for the continuous monitoring and recording of the total gas flow rate ~~from all extraction wells,~~ and ~~each flare~~ flame temperature at each flare, shall be……

Comments/Clarification

As per the monitoring requirements of 40 CFR 60 Subpart WWW, the gas flow rate and the flame temperature will be monitored and recorded continuously (i.e., at least every 15 minutes) at the flare stations. However, it is clarified that the gauge pressure, nitrogen or oxygen concentration, and temperature will be measured at each vertical gas extraction well on a monthly basis (and not continuously).

If you have any questions or need additional information, please do not hesitate to contact the undersigned.

Sincerely,

Kenneth W. Cargill, P.E.
Principal

GEOSYNTEC CONSULTANTS
14055 Riveredge Drive, Suite 300
Tampa, Florida 33637 • USA
Telephone (813) 558-0990 • Fax (813) 558-9726

RECEIVED
APR 01 2003
BUREAU OF AIR REGULATION

31 March 2003

Mr. Allen A. Linero
Program Administrator, Bureau of Air Regulation
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Subject: Comments Related to the Draft Air Construction Permit
DEP File No. 0970079-001-AC
Oak Hammock Disposal (OHD) Facility
Omni Waste of Osceola County, LLC (Omni)
Osceola County, Florida

Dear Mr. Linero:

The purpose of this letter is to provide Florida Department of Environmental Protection (FDEP) with written comments related to the above referenced draft Air Construction Permit (ACP). The draft ACP was issued by FDEP for review and comments on 13 March 2003 in a letter addressed to Mr. Timothy J. Salopek. The draft ACP language is reproduced in italic font. The requested modifications to the draft ACP language are underlined and are followed by comments/clarifications (if any) for the requested modifications in normal font.

Item 1:

Page 1 & 2 of 10, Draft ACP

.....a gas extraction and collection system (GECS), two flares, and ancillary equipment .....

Page TE-3, Technical Evaluation and Preliminary Determination (TEPD)

.....a gas extraction and collection system (GECS), and two flares, and has an overall footprint .....

Requested Modifications

…… (GECS), up to two flares, and ……

It is noted that up to 2 flares will be installed during the Phase 1 development of the OHD facility. As noted on Sheets 24 and 29 of 50 of the permit drawings, the first flare station will be constructed near the north end of the facility during Phase 1 development. The second flare station is scheduled to be constructed during Phase 2 development of the facility, beyond the southern limits of Phase 1. The GECS will ultimately consist of 4 flare stations after the OHD facility is fully developed. It is clarified that the second flare station will be constructed during Phase 1 development of the facility only if needed. The intent of requesting up to 2 flares to be constructed during Phase 1 development was to assure that this ACP will continue to be applicable to Phase 1 in the event a second flare station was needed and modification to the permit will not be required until Phase 2 is permitted.

Item 2:

Page 2 of 10, Draft ACP

Future phases not covered by this permit consist of 21 landfill cells, a larger GECS, four flares, and ancillary equipment on approximately 264 acres.

Requested Modifications

Future phases not covered by this permit consist of 17 additional landfill cells, a larger GECS, additional flares up to a total of four flares, and ancillary equipment on approximately 264 acres.

It is noted that after complete build-out, the OHD facility will consist of 21 landfill cells (developed in 6 phases) and a GECS with 4 flares. Phase 1 development of the facility will include 4 landfill cells and a GECS with up to 2 flares.

Item 3:

Special Condition # 8, Page 4 of 10, Draft ACP

Title V Operation Permit Required: This .....shall be submitted to the Department's Southeast District office.

Requested Modifications

Title V Operation Permit Required: This .....shall be submitted to the Department's Central District office.

Item 4:

Special Condition # 6, Page 9 of 10, Draft ACP

Visible Emissions: Compliance.....The required visible emissions test report shall also contain the extraction wells gas flow rate and the flare temperature data.

Special Condition # 13, Page 10 of 10, Draft ACP

Continuous Monitoring: Proper devices for the continuous monitoring and recording of the total gas flow rate from all extraction wells, and each flare flame temperature, shall be.....

Comments/Clarification

As per the monitoring requirements of 40 CFR 60 Subpart WWW, the gas flow rate and the flame temperature will be monitored and recorded continuously (i.e., at least every 15 minutes) at the flare stations. However, it is clarified that the gauge pressure, nitrogen or oxygen concentration, and temperature will be measured at each vertical gas extraction well on a monthly basis (and not continuously).

Item 5:

Page 1 of 3, Intent to Issue ACP

You must provide proof of publication within seven days of publication, ...

Comments

The Public Notice of Intent to Issue ACP was published in the 22 March 2003 issue of the Orlando Sentinel. Proof of the publication is attached. It is noted that the proof of publication was faxed to your office on 28 March 2003. The fax transmission report for the same is also attached.

If you have any questions or need additional information, please do not hesitate to contact the undersigned.

Sincerely,

Kenneth W. Cargill, P.E.
Principal

Copy to: Tim Salopek, Omni Waste
Lenny Marion, Omni Waste
David Dee, Landers & Parsons

Orlando Sentinel

Published Daily

State of Florida } S.S.
COUNTY OF ORANGE }

Before the undersigned authority personally appeared Linda Bridgewater, who on oath says that he/she is the Legal Advertising Representative of Orlando Sentinel, a daily newspaper published at KISSIMMEE in OSCEOLA County, Florida; that the attached copy of advertisement, being a PUBLIC NOTICE OF I in the matter of DEP File # 0970070-001-AC in the OSCEOLA Court, was published in said newspaper in the issue; of 03/22/03

Affiant further says that the said Orlando Sentinel is a newspaper published at KISSIMMEE, in said OSCEOLA County, Florida, and that the said newspaper has heretofore been continuously published in said OSCEOLA County, Florida, each Week Day and has been entered as second-class mail matter at the post office in KISSIMMEE in said OSCEOLA County, Florida, for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that he/she has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.

Linda Bridgewater

The foregoing instrument was acknowledged before me this 26th day of March, 2003 by Linda Bridgewater, who is personally known to me and who did take an oath.

(SEAL)

OFFICIAL NOTARY SEAL
JULIA NICHOLS
NOTARY PUBLIC STATE OF FLORIDA
COMMISSION NO. DD054311
MY COMMISSION EXP. SEPT 23,2005

PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL PROTECTION

DEP File No. 0970079-001-AC

Omni Waste of Osceola County, LLC
Oak Hammond Disposal facility
Osceola County

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit to Omni Waste of Osceola County for construction of a solid waste disposal facility west of Highway 441, approximately 6.5 miles south of Holopaw. A determination of Best Available Control Technology pursuant to Rule 62-212.400, F.A.C. was not required at this time. The applicant's name and address are: Omni Waste of Osceola County, LLC, 100 Church Street, Kissimmee, Florida, 34741.

The proposed project, known as the Oak Hammock Disposal Facility, will be developed in six different phases on a site comprising 2179 acres. This air construction permit is for Phase I, which includes four landfill cells covering an area of approximately 53 acres, two flares, and ancillary facilities. The complete build-out of the facility includes 21 landfill cells covering an area of approximately 264 acres and four flares.

The average solid waste disposal rate over the projected 30-year life of the facility is estimated at roughly 1,460 tons per day (TPD) with a maximum rate of 4,000 TPD. The ultimate height of the landfill will be roughly 300 feet above ground level.

A gas extraction and control system (GECS) including the flares will be installed and will function as early as the third year of operation. The GECS will collect approximately 75 percent of the gases evolved during the decomposition of the waste and will reduce emissions of non-methane hydrocarbons (NMOC) and minimize odor. The same GECS and flares will insure compliance with applicable Standards of Performance for Municipal Solid Waste Landfills and the National Emission Standards for Hazardous Air Pollutants from Municipal Solid Waste Landfills.

The proposed permit requires Omni Waste to regularly submit emissions estimates to the Department and to submit an application for a construction permit for each subsequent phase. Depending on projected emissions, the applications for subsequent phases may require a review under the Department's Rules for the Prevention of Significant Deterioration of Air Quality (PSD) and BACT at Rule 62-212.400.

The Department will issue the FINAL Permit, in accordance with the conditions of the DRAFT Permit, unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments concerning the proposed permit issuance action for a period of 14 (fourteen) days from the date of publication of this Public Notice of Intent to Issue Air Construction Permit. Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below. Mediation is not available in this proceeding.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under sections 120.569 and 120.57 of the Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under section 120.60(3) of the Florida Statutes must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under section 120.60(3), however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under sections 120.569 and 120.57 F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205 of the Florida Administrative Code.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

A complete project file is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Department of Environmental Protection
Bureau of Air Regulation
111 S. Magnolia Drive, Suite 4
Tallahassee, Florida 32301
Telephone: 850/488-0114
Fax: 850/922-6979

Department of Environmental Protection
Central District Office
3319 Maguire Boulevard, Suite 232
Orlando, Florida 32803-3767
Telephone: 407/894-7555
Fax: 407/897-2966

The complete project file includes the application, technical evaluations, Draft Permit, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Program Administrator, New Resource Review Section at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 850/488-0114, for additional information. Key documents may also be viewed at www.dep.state.fl.us/air/permitting/construct.htm

OSCL 4953434 Mar 22, 2003

****
*** TX REPORT ***
****

TRANSMISSION OK

TX/RX NO	3798
CONNECTION TEL	18509226979
SUBADDRESS	
CONNECTION ID	
ST. TIME	03/28 15:42
USAGE T	01'47
PGS. SENT	3
RESULT	OK

GeoSyntec Consultants

14055 Riveredge Drive, Suite 300
Tampa, Florida 33637 USA
Telephone: (813) 558-0990
Telefax: (813) 558-9726

FAX COVER SHEET

To: AL LINERO, PROGRAM ADMINISTRATOR (TEL: 850-921-9523)

Firm: BUREAU OF AIR REGULATION, ~~FDEP~~ TALLAHASSEE

Fax No.: 850-922-6979

From: KEN CARGILL Project No.: FW0400 / TASK 1.3

Cover page plus 2 pages following.

Sent by: A. GUPTA Date: 3/28/03 Time: 2:45PM

MESSAGE

① PROOF OF PUBLICATION OF "PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT" IS ATTACHED.

② FAXING THIS AS WE ARE NOT SURE IF OMNI SENT YOU A COPY OR NOT.

③ WILL SEND A COPY OF IT IN THE MAIL AS WELL.

Omni Waste

P.O. Box 421613
Kissimmee, FL 34742
407-957-7284 Phone
407-957-7202 Fax

March 28, 2003

RECEIVED
MAR 31 2003
BUREAU OF AIR REGULATION

Ms. Trina Vielhauer, Chief
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, FL 32399-2400

RE: Affidavit of Publication
Public Notice of Intent to Issue
Air Construction Permit
DEP File No. 0970079-001-AC
Oak Hammock Disposal Facility

Dear Ms. Vielhauer:

Please find enclosed the ***original*** Affidavit of Publication for the Notice of Intent to Issue. This information was published on 22 March 2003 in the Orlando Sentinel. If you need additional information please feel free to contact me.

Sincerely,

Tim Salopek /ss

Timothy J. Salopek
President

TJS/ss

Enclosure

cc: David Dee/Landers & Parsons
Ken Cargill/GeoSyntec Consultants

Orlando Sentinel

Published Daily

RECEIVED

MAR 31 2003

BUREAU OF AIR REGULATION

State of Florida } S.S.
COUNTY OF ORANGE

Before the undersigned authority personally appeared Linda Bridgewater, who on oath says that he/she is the Legal Advertising Representative of Orlando Sentinel, a daily newspaper published at KISSIMMEE in OSCEOLA County, Florida; that the attached copy of advertisement, being a PUBLIC NOTICE OF I in the matter of DEP File # 0970070-001-AC

in the OSCEOLA Court, was published in said newspaper in the issue; of 03/22/03

Affiant further says that the said Orlando Sentinel is a newspaper published at KISSIMMEE, in said OSCEOLA County, Florida, and that the said newspaper has heretofore been continuously published in said OSCEOLA County, Florida, each Week Day and has been entered as second-class mail matter at the post office in KISSIMMEE in said OSCEOLA County, Florida, for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that he/she has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.

Linda Bridgewater

The foregoing instrument was acknowledged before me this 26th day of March, 2003, by Linda Bridgewater, who is personally known to me and who did take an oath.

(SEAL)

OFFICIAL NOTARY SEAL
JULIA NICHOLS
NOTARY PUBLIC STATE OF FLORIDA
COMMISSION NO. DD054311
MY COMMISSION EXP. SEPT 23,2005

PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL PROTECTION

DEP File No. 0970079-001-AC

Omni Waste of Osceola County, LLC
Oak Hammond Disposal facility
Osceola County

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The average solid waste disposal rate over the projected 30-year life of the facility is estimated at roughly 1,650 tons per day (TPD) with a maximum rate of 4,000 TPD. The ultimate height of the landfill will be roughly 100 feet above ground level.

A gas extraction and control system (GECS) including the flares will be installed and will function as early as the third year of operation. The GECS will collect approximately 75 percent of the goses evolved during the decomposition of the waste and will reduce emissions of non-methane hydrocarbons (NMOC) and minimize odor. The same GECS ond flares will insure compliance with applicable Standards of Performance for Municipal Solid Waste Landfills and the National Emission Standards for Hazardous Air Pollutants from Municipal Solid Waste Landfills.

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Department of Environmental Protection
Bureau of Air Regulation
111 S. Magnolia Drive, Suite 4
Tallahassee, Florida 32301
Telephone: 850/488-0114
Fax: 850/922-6979

Department of Environmental Protection
Central District Office
3319 Maguire Boulevard, Suite 232
Orlando, Florida 32803-3767
Telephone: 407/894-7555
Fax: 407/897-2966

The complete project file includes the application, technical evaluations, Draft Permit, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Program Administrator, New Resource Review Section at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 850/488-0114, for additional information. Key documents may also be viewed at www.dep.state.fl.us/air/permitting/construct.htm

OSCL4953434 Mar 22, 2003

Department of Environmental Protection

Jeb Bush
Governor

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

David B. Struhs
Secretary

March 13, 2003

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Timothy J. Salopek, President
Omni Waste of Osceola County, LLC
100 Church Street
Kissimmee, Florida 34741

Re: DEP File No. 0970079-001-AC
Omni Waste of Osceola County
Oak Hammock Disposal (OHD) Facility

Dear Mr. Salopek:

Enclosed is one copy of the Draft air construction permit to construct Phase I of the Oak Hammock Disposal Facility consisting of four landfill cells and two flares near Holopaw, Osceola County. The Technical Evaluation and Preliminary Determination, the Department's Intent to Issue Air Construction Permit and the Public Notice of Intent to Issue Air Construction Permit are also included.

The Public Notice must be published one time only, as soon as possible, in the legal advertisement section of a newspaper of general circulation in the area affected, pursuant to the requirements of Chapter 50, Florida Statutes. Proof of publication, i.e., newspaper affidavit, must be provided to the Department's Bureau of Air Regulation office within seven days of publication. Failure to publish the notice and provide proof of publication may result in the denial of the permit.

Please submit any written comments you wish to have considered concerning the Department's proposed action to Mr. A. A. Linero, Program Administrator, at the above letterhead address. If you have any other questions, please contact Ms. Teresa Heron at 850/921-9529 or Mr. Syed Arif, P.E. at 850/921-9528.

Sincerely,

for Trina L. Vielhauer, Chief
Bureau of Air Regulation

TLV/sa

Enclosures

SENDER: *COMPLETE THIS SECTION*

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Mr. Timothy J. Salopek
President
Omni Waste of Osceola County, LLC
100 Church Street
Kissimmee, FL 34741

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X B Jones ☐ Agent ☐ Addressee

B. Received by *(Printed Name)* B Jones C. Date of Delivery 3-17-03

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☒ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

2. 7001 0320 0001 3692 6822

PS Form 3811, August 2001 Domestic Return Receipt 102595-02-M-1540

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

OFFICIAL USE

Postage	$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$

Postmark Here

Sent To: Timothy J. Salopek
Street, Apt. No.; or PO Box No.: 100 Church Street
City, State, ZIP+4: Kissimmee, FL 34741

PS Form 3800, January 2001 See Reverse for Instructions

7001 0320 0001 3692 6822

In the Matter of an
Application for Permit by:

Mr. Timothy J. Salopek, President
Omni Waste of Osceola County, LLC
100 Church Street
Kissimmee, Florida 34741

DEP File No. 0970079-001-AC
Oak Hammock Disposal Facility
Osceola County

INTENT TO ISSUE AIR CONSTRUCTION PERMIT

The Department of Environmental Protection (Department) gives notice of its intent to issue a permit (copy attached) for the proposed project, detailed in the application specified above. The Department is issuing this Intent to Issue for the reasons stated in the attached Technical Evaluation and Preliminary Determination.

The applicant, Omni Waste of Osceola County, applied on February 3, 2003, to the Department of Environmental Protection for a permit to construct Phase I of the Oak Hammock Disposal facility. This Phase includes four (4) landfill cells with two flares covering a total footprint of approximately 53 acres and ancillary facilities supporting the operation of the landfill. The facility is located in Osceola County, Florida.

The Department has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes (F.S.), Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, and 62-212. The above actions are not exempt from permitting procedures. The Department has determined that an Air Construction permit is required.

The Department intends to issue this air construction permit based on the belief that reasonable assurances have been provided to indicate that operation of these emission units will not adversely impact air quality, and the emission units will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-296, 62-297, F.A.C.

Pursuant to Section 403.815, F.S., and Rule 62-110.106(7)(a)1., F.A.C., you (the applicant) are required to publish at your own expense the enclosed Public Notice of Intent to Issue Air Construction Permit. The notice shall be published one time only in the legal advertisement section of a newspaper of general circulation in the area affected. Rule 62-110.106(7)(b), F.A.C., requires that the applicant cause the notice to be published as soon as possible after notification by the Department of its intended action. For the purpose of these rules, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. If you are uncertain that a newspaper meets these requirements, please contact the Department at the address or telephone number listed below. The applicant shall provide proof of publication to the Department's Bureau of Air Regulation, at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400 (Telephone: 850/488-0114; Fax 850/ 922-6979). You must provide proof of publication within seven days of publication, pursuant to Rule 62-110.106(5), F.A.C. No permitting action for which published notice is required shall be granted until proof of publication of notice is made by furnishing a uniform affidavit in substantially the form prescribed in section 50.051, F.S. to the office of the Department issuing the permit. Failure to publish the notice and provide proof of publication may result in the denial of the permit pursuant to Rules 62-110.106(9) & (11), F.A.C.

The Department will issue the final permit with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments and requests for public meetings concerning the proposed permit issuance action for a period of 14 (fourteen) days from the date of publication of the enclosed Public Notice. Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under sections 120.569 and 120.57 of the Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under section 120.60(3) of the Florida Statutes must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under section 120.60(3), however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under sections 120.569 and 120.57 F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205 of the Florida Administrative Code.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above. Mediation is not available in this proceeding.

In addition to the above, a person subject to regulation has a right to apply for a variance from or waiver of the requirements of particular rules, on certain conditions, under Section 120.542 F.S. The relief provided by this state statute applies only to state rules, not statutes, and not to any federal regulatory requirements. Applying for a variance or waiver does not substitute or extend the time for filing a petition for an administrative hearing or exercising any other right that a person may have in relation to the action proposed in this notice of intent.

The application for a variance or waiver is made by filing a petition with the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. The petition must specify the following information: (a) The name, address, and telephone number of the petitioner; (b) The name, address, and telephone number of the attorney or qualified representative of the petitioner, if any; (c) Each rule or portion of a rule from which a variance or waiver is requested; (d) The citation to the statute underlying (implemented by) the rule identified in (c) above; (e) The type of action requested; (f) The specific facts that would justify a variance or waiver for the petitioner; (g) The reason why the variance or waiver would serve the purposes

of the underlying statute (implemented by the rule); and (h) A statement whether the variance or waiver is permanent or temporary and, if temporary, a statement of the dates showing the duration of the variance or waiver requested.

The Department will grant a variance or waiver when the petition demonstrates both that the application of the rule would create a substantial hardship or violate principles of fairness, as each of those terms is defined in Section 120.542(2) F.S., and that the purpose of the underlying statute will be or has been achieved by other means by the petitioner.

Persons subject to regulation pursuant to any federally delegated or approved air program should be aware that Florida is specifically not authorized to issue variances or waivers from any requirements of any such federally delegated or approved program. The requirements of the program remain fully enforceable by the Administrator of the EPA and by any person under the Clean Air Act unless and until the Administrator separately approves any variance or waiver in accordance with the procedures of the federal program.

Executed in Tallahassee, Florida.

for Trina L. Vielhauer, Chief
Bureau of Air Regulation

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Intent to Issue Air Construction Permit (including the Public Notice, Technical Evaluation and Preliminary Determination, and the DRAFT permit) was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 3/14/03 to the person(s) listed:

Timothy J. Salopek, Omni Waste of Osceola County*
Kenneth W. Cargill, P.E., GeoSyntec Consultants
Kay Prince, EPA
John Bunyak, NPS
Len Kozlov, CFD

Clerk Stamp

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

Victoria Gibson (Clerk) March 14, 2003 (Date)

PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

DEP File No. 0970079- 001-AC

Omni Waste of Osceola County, LLC
Oak Hammond Disposal facility
Osceola County

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit to Omni Waste of Osceola County for construction of a solid waste disposal facility west of Highway 441, approximately 6.5 miles south of Holopaw. A determination of Best Available Control Technology pursuant to Rule 62-212.400, F.A.C. was not required at this time. The applicant's name and address are: Omni Waste of Osceola County, LLC, 100 Church Street, Kissimmee, Florida, 34741.

The proposed project, known as the Oak Hammock Disposal Facility, will be developed in six different phases on a site comprising 2179 acres. This air construction permit is for Phase I, which includes four landfill cells covering an area of approximately 53 acres, two flares, and ancillary facilities. The complete build-out of the facility includes 21 landfill cells covering an area of approximately 264 acres and four flares.

The average solid waste disposal rate over the projected 30-year life of the facility is estimated at roughly 1,650 tons per day (TPD) with a maximum rate of 4,000 TPD. The ultimate height of the landfill will be roughly 100 feet above ground level.

A gas extraction and control system (GECS) including the flares will be installed and will function as early as the third year of operation. The GECS will collect approximately 75 percent of the gases evolved during the decomposition of the waste and will reduce emissions of non-methane hydrocarbons (NMOC) and minimize odor. The same GECS and flares will insure compliance with applicable Standards of Performance for Municipal Solid Waste Landfills and the National Emission Standards for Hazardous Air Pollutants from Municipal Solid Waste Landfills.

The proposed permit requires Omni Waste to regularly submit emissions estimates to the Department and to submit an application for a construction permit for each subsequent phase. Depending on projected emissions, the applications for subsequent phases may require a review under the Department's Rules for the Prevention of Significant Deterioration of Air Quality (PSD) and BACT at Rule 62-212.400.

The Department will issue the FINAL Permit, in accordance with the conditions of the DRAFT Permit, unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments concerning the proposed permit issuance action for a period of 14 (fourteen) days from the date of publication of this Public Notice of Intent to Issue Air Construction Permit. Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below. Mediation is not available in this proceeding.

Notice for Newspaper

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under sections 120.569 and 120.57 of the Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under section 120.60(3) of the Florida Statutes must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under section 120.60(3), however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under sections 120.569 and 120.57 F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205 of the Florida Administrative Code.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

A complete project file is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Department of Environmental Protection
Bureau of Air Regulation
111 S. Magnolia Drive, Suite 4
Tallahassee, Florida 32301
Telephone: 850/488-0114
Fax: 850/922-6979

Department of Environmental Protection
Central District Office
3319 Maguire Boulevard, Suite 232
Orlando, Florida 32803-3767
Telephone: 407/894-7555
Fax: 407/897-2966

The complete project file includes the application, technical evaluations, Draft Permit, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Program Administrator, New Resource Review Section at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 850/488-0114, for additional information. Key documents may also be viewed at www.dep.state.fl.us/air/permitting/construct.htm

Notice for Newspaper

TECHNICAL EVALUATION

AND

PRELIMINARY DETERMINATION

Omni Waste of Osceola County

Oak Hammock Disposal Facility

Class I Landfill, Gas Collection System and Flares

Osceola County

DEP File No. 0970079-001-AC

Department of Environmental Protection
Division of Air Resources Management
Bureau of Air Regulation

March 13, 2003

1. GENERAL INFORMATION

1.1 APPLICANT NAME AND ADDRESS

Omni Waste of Osceola County
100 Church Street
Kissimmee, Florida 34741
Authorized Representative: Timothy J. Salopek, President

1.2 REVIEWING AND PROCESS SCHEDULE

02/03/03	Received permit application and fee; Application Complete
03/13/03	Intent issued

2. FACILITY INFORMATION

2.1 FACILITY LOCATION

The proposed Oak Hammock Disposal (OHD) Facility site is located approximately 6.5 miles south of Holopaw, Florida, on Highway US 441, in Osceola County. The UTM coordinates are Zone 17; 190.4 km E; 413.5 km N.

Figure 1 – Holopaw, Osceola County

Figure 2 – Location of Proposed Facility

2.2 STANDARD INDUSTRIAL CLASSIFICATION CODES (SIC)

Industry Group No.	49	Electric, Gas, and Sanitary Services
Industry No.	4953	Refuse Systems

2.3 FACILITY CATEGORY

This new facility is classified as a Major or Title V Source of air pollution because it is subject to the New Source Performance Standards (NSPS) for Municipal Solid Waste (MSW) Landfills, Subpart WWW, and has a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters. After installation of a gas extraction and collection system (GECS) with flares as early as the third year of operation, this facility will reach the Title V threshold of 100 TPY of carbon monoxide (CO) (assuming 4,000 tons/day of waste disposal rate).

The facility is also an area source of hazardous air pollutants pursuant to Section 112(k) of Title III of the Clean Air Act and 40 CFR 63, Subpart AAAA – National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills.

This new facility is not in the list of the 28 Major Facility Categories per Table 62-212.400-1, F.A.C. Potential emissions during Phase I are less than the PSD level of 250 TPY for all the criteria pollutants. Therefore the facility is not considered a Major Facility with respect to Rule 62-212.400, Prevention of Significant Deterioration (PSD) during Phase I.

It is anticipated that after the installation of the flares and at the end of the 7th year of operation, the emission rate of CO will exceed the 250 TPY PSD threshold (assuming 4,000 tons/day of waste disposal rate) making this facility a PSD major source. Depending on the materials deposited, the facility may generate appreciable amounts of reduced sulfur compounds that will be converted to sulfur dioxide (SO_2) by the flares. Therefore the facility will undergo PSD review for CO and/or other applicable pollutants (such as SO_2) at that time.

3. PROJECT DESCRIPTION

This project addresses the following emissions unit:

EMISSIONS UNIT NO.	EMISSIONS UNIT DESCRIPTION
001	Municipal Solid Waste Landfill with Gas Extraction Collection System
002	Phase I – Class I Landfill Gas Collection System Flare 1
003	Phase I – Class I Landfill Gas Collection System Flare 2

This permitting action is for construction of the first of six planned phases of a municipal solid waste landfill to be located on a 2179-acre site. Phase I includes 4 landfill cells, a Gas Extraction and Collection System (GECS), and two flares and has an overall footprint of approximately 53 acres. The complete build-out of the facility will consist of 21 landfill cells, four flares, and a GECS and with a total footprint of approximately 264 acres as shown in Figure 3.

Based on the application, the estimated volume of waste and initial cover soils that can be disposed in the OHD landfill after complete build-out is approximately 23.7 million cubic yards. This landfill capacity is expected to provide volume for a period of approximately 30 years based on an average waste disposal rate of 474,00 tons/year and 1,657 ton/day or 12.4 years assuming a maximum waste rate of 4,000 tons/day. The 30-year life and 12.4-year life of the OHD facility were computed assuming an average in-place unit weight of 1,500 pounds/cubic yard, 20 percent of the available volume occupied by the initial cover, and landfill operations for 5.5 days per week or 286 equivalent full days per year.

At a rate of 4,000 tons/day, the GECS will be installed in the 3rd year of the landfill operation when the total quantity of disposed waste reaches approximately 2.75 million tons, in compliance with 40 CFR Part 60, Subpart WWW. At a rate of 1,657 tons/day, Omni Waste proposes to install the GECS in the 6th year of the landfill operation when the total quantity of disposed waste reaches approximately 2.75 million tons, in compliance with 40 CFR Part 60, Subpart WWW.

At a rate of 4,000 tons/day, the maximum landfill gas generation rate in the first 5 years of operation of the OHD facility is approximately 1,210 million cubic feet per year. Assuming a 75 percent collection efficiency of the gas extraction and control system, the maximum landfill gas burned at the flare (s) is approximately 907 million cubic feet per year.

The OHD facility after complete build-out (21 cells) will use up to a total of 4 flares as control devices in the proposed GECS. However, it is expected that no more than 2 flares will be installed during Phase I.

LAYOUT OF OAK HAMMOCK DISPOSAL FACILITY

FIGURE 3

LEGEND

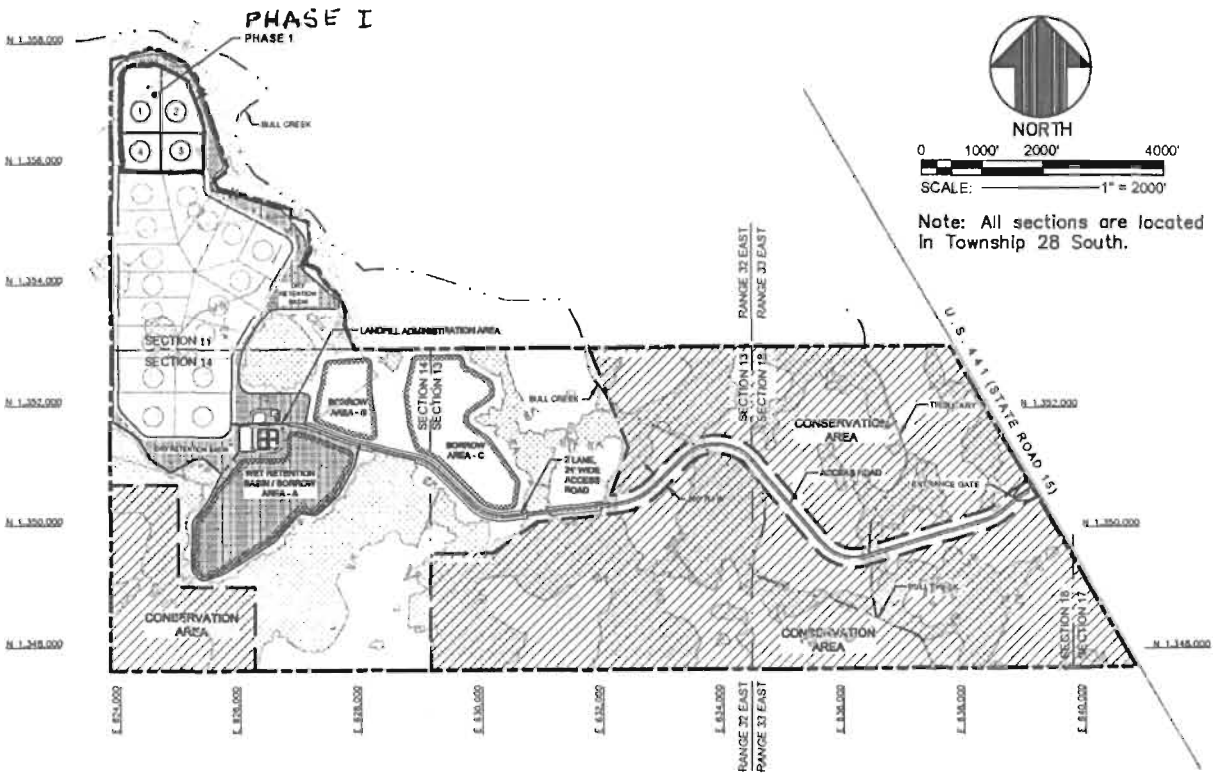
- PROPERTY BOUNDARY
- WETLAND
- (2) LANDFILL CELL NUMBER
- STORMWATER MANAGEMENT AREA
- BORROW AREA BOUNDARY
- CONSERVATION AREA

PROPERTY DESCRIPTION

Sections 13 and 14 and portion of Section 11 west of Bull Creek in Township 28 South, Range 32 East.

Portions of Sections 17 and 18 west of Highway 441 (State Road No. 15) in Township 28 South, Range 33 East.

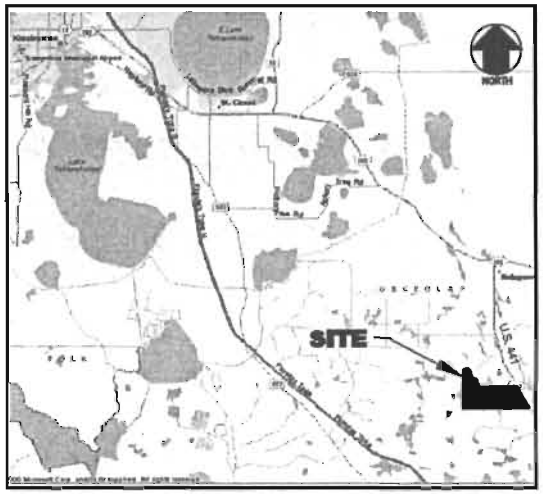
Entire site lies in Osceola County, Florida.



0 1000' 2000' 4000'

SCALE: 1" = 2000'

Note: All sections are located in Township 28 South.



AREA MAP

0 1 2 3 6

SCALE: 1" = 6 MILES

omni Waste of Osceola County LLC

OAK HAMMOCK DISPOSAL FACILITY
OSCEOLA COUNTY, FLORIDA

GeoSyntec Consultants
TAMPA, FLORIDA

PROJECT NO.	FW0400	FIGURE NO.	3
DATE.	29 JAN 03	FILE NO.	0400F1015

4. PROJECT EMISSIONS

Methane (CH_4) and CO_2 are the primary constituents of landfill gas, and are produced by microorganisms within the landfill under anaerobic conditions. These species are not defined as air pollutants. Transformations of CH_4 and CO_2 are mediated by microbial populations that are adapted to the cycling of materials in anaerobic environments.

Landfill gas generation, including rate and composition, proceeds through four phases. The first phase is aerobic [i.e., with oxygen (O_2) available] and the primary gas produced is CO_2. The second phase is characterized by O_2 depletion, resulting in anaerobic environment, where large amounts of CO_2 and some hydrogen (H_2) are produced. In the third phase, CH_4 production begins, with an accompanying reduction in the amount of CO_2 produced. Nitrogen (N_2) content is initially high in landfill gas in the first phase, and declines sharply as the landfill proceeds through the second and third phases. In the fourth phase, gas production of CH_4, CO_2 and N_2 becomes fairly steady. The total time and phase duration of gas generation varies with landfill conditions (i.e., waste composition, management, and anaerobic state).

Typically, landfill gas also contains non-methane organic compounds (NMOC), considered to be an air pollutant. This NMOC fraction can contain various organic hazardous air pollutants (HAP), greenhouse gases and compounds associated with stratospheric ozone depletion. The NMOC fraction also contains volatile organic compounds (VOC), which is considered to be an air pollutant. Landfill gas also includes reduced sulfur compounds, chlorine-containing gases, and mercury (Hg). Various compounds classified as NMOC or VOC cause odor problem associated with landfills.

Other emissions associated with MSW landfills include combustion products from landfill gas control and utilization equipment (i.e., flares, engines, turbines and boilers). These include CO, NO_X, SO_2, hydrogen chloride (HCl), particulate matter (PM) and other combustion products (including HAPs). PM emissions can also be generated in the form of fugitive dust created by mobile sources (i.e., garbage trucks) traveling along paved and unpaved surfaces.

The rate of emissions from a landfill is governed by gas production and transport mechanisms. Production mechanisms involve the production of the emission constituent in its vapor phase through vaporization, biological decomposition or chemical reaction. Transport mechanisms involve the transportation of a volatile constituent in its vapor phase to the surface of the landfill, through the air boundary layer above the landfill, and into the atmosphere. The three major transport mechanisms that enable transport of a volatile constituent in its vapor phase are diffusion, convection and displacement.

The applicant calculated emission rates based on 1,657 tons/day and 4,000 tons/day waste disposal rates to demonstrate that for the first 5 years pollutant emissions at the landfill are not greater than the 250 TPY PSD thresholds. The proposed facility will be considered a minor facility for the first 5 years of operation. Therefore, this project is not subject to PSD for the Phase I construction.

It is anticipated that after the installation of the flares, the controlled emission rate of CO will exceed 250 ton per year at the end of the 7th year of OHD facility operation. As this is the case, this project will be reviewed at that time for PSD applicability purposes. Omni Waste will be required to submit past and future emissions estimates each year with their required Annual Operating Report.

The following table summarizes the potential maximum emissions increases of air pollutant estimated by the applicant. These represent maximum mass emission rates for the first 5 years of operation and for the end of the operating life (12.4 years) of the facility considering 4000 TPD waste disposal rate. Actual emissions and odor potential can vary considerably, particularly if the landfill accepts large quantities of plasterboard such as from hurricane debris or accepts other wastes such as wastewater plant sludge. Such wastes increase the production of malodorous reduced sulfur compounds and ultimately of SO_2 following installation of the GECS.

Table 1

MASS EMISSION RATES FOR REGULATED AIR POLLUTANTS AND LANDFILL GAS CONSTITUENTS (WASTE DISPOSAL RATE = 4,000 tons/day)

Air Pollutant/LFG Constituent [1]	Maximum Mass Emission Rates (tons/yr)			
	Phase 1 Development		End of Operating Life	
	End of 3rd year Uncontrolled [2]	End of 5th year Controlled [3]	12.4 years Uncontrolled [2]	12.4 years Controlled [3]
Carbon Monoxide (CO)	3.8	188.1	13.1	405.8
Total Reduced Sulfur (TRS as S or SO_2) [4]	1.4	4.6	5.0	10.0
Non-Methane Organic Compounds (NMOC)	49.4	20.3	170.7	43.7
Total Volatile Organic Compounds (VOC)	17.6	7.2	60.8	15.5
Any Individual HAP (H001 through H189) [5]	3.5	1.4	12.1	3.0
Total Hazardous Air Pollutants (HAPS)	10.3	4.2	35.5	9.1
Chlorides (as Cl^- or HCl) [6]	1.4	2.4	5.0	5.1
Mercury (Hg or H114)	4.9×10^{-5}	--	1.7×10^{-4}	--
Nitrogen Dioxide (NOX as NO_2)	NA [7]	10.1	NA [7]	21.8
Particulate Matter (PM)	NA [7]	4.2	NA [7]	9.1

Notes:

[1] Per USEPA AP-42 Section 2.4 (1998).

[2] Assuming no gas extraction and control system (GECS) is installed.

[3] Assuming the proposed GECS is installed beginning in the 3rd year of operation. See text for other assumptions.

[4] Uncontrolled and controlled emissions are reported as S and SO_2, respectively.

[5] Maximum emissions for any individual HAP. Emissions reported are for Toluene (H169).

[6] Uncontrolled and controlled emissions are reported as Cl^- and HCl (H106), respectively.

[7] Not Applicable. NO_2 and PM are not landfill gas constituents and are generated only by the flare(s).

5. RULE APPLICABILITY

The proposed project is subject to preconstruction review requirements under the provisions of Chapter 403, Florida Statutes, and Chapters 62-4, 62-204, 62-210, 62-212, 62-214, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.). In particular, the facility is subject to the provisions of Rule 62-296.320(2) – Objectionable Odors Prohibited. The landfill gas collection systems are subject to the collection and control requirements of 40 CFR 60 Subpart WWW – Standards of Performance for Municipal Waste Landfills and 40 CFR Part 63, Subpart AAAA-. The proposed flares are subject to the requirements of 40 CFR 60.18, General Control Device Requirements.

This facility is located in an area designated, in accordance with Rule 62-204.340, F.A.C., as attainment for the criteria pollutants PM_{10}, carbon monoxide, sulfur dioxide, ozone and nitrogen dioxide. The proposed project is not yet subject to review under Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD) as discussed above.

The emission units affected by this permit shall comply with all applicable provisions of the Florida Administrative Code (including applicable portions of the Code of Federal Regulations incorporated therein) and, specifically, the following Chapters and Rules.

5.1 STATE REGULATIONS

Chapter 62-4	Permits
Rule 62-204.220	Ambient Air Quality Protection
Rule 62-204.240	Ambient Air Quality Standards
Rule 62-204.800	Federal Regulations Adopted by Reference
Rule 62-210.200	Definitions
Rule 62-210.300	Permits Required
Rule 62-210.350	Public Notice and Comments
Rule 62-210.370	Reports
Rule 62-210.550	Stack Height Policy
Rule 62-210.650	Circumvention
Rule 62-210.900	Forms and Instructions
Rule 62-212.300	General Preconstruction Review Requirements
Rule 62-296.320	General Pollutant Emission Limiting Standards
Rule 62-297.310	General Test Requirements
Rule 62-297.401	Compliance Test Methods

5.2 FEDERAL RULES

40 CFR 60, Subpart WWW	Standards of Performance for Municipal Solid Waste Landfills
40 CFR 63, Subpart AAAA	NESHAP - Municipal Solid Waste Landfills
40 CFR 60, Subpart A	Applicable sections of General Requirements
40 CFR 60.18	General control device requirements (flares)

6. AIR POLLUTION CONTROL TECHNIQUES

One of the key concerns about municipal waste landfills is odor. The Department's rules prohibit objectionable odor. During Phase I, Odor will be initially minimized by the regular covering of active disposal areas. Ultimately seepage of malodorous compounds occurs through the surface and it is necessary to control such compounds by the installation of a Gas Extraction and Collection System (GECS) that will maintain a negative pressure on much of the active area and thus minimize seepage.

Together with the GECS, Omni Waste will install flares that will oxidize collected gases such that emissions of malodorous gases will be minimized.

Federal Regulation 40 CFR 60, Subpart WWW also requires a GECS for the control of NMOC emissions. Also 40 CFR 63, Subpart AAAA basically requires the same control for HAPs as required by Subpart WWW for NMOC. The design of the system for the purposes of 40 CFR 60, Subpart WWW and 40 CFR 63, Subpart WWW are adequate for their intended purposes as well as to provide reasonable assurance of compliance with the Department's Objectionable Odor Rule.

The mentioned federal standards require: (1) a well-designed and well-operated gas collection system, and (2) a control device capable of reducing NMOCs in the collected gas by 98 weight-percent.

Landfill gas collection systems are either active or passive systems. Active collection systems provide a pressure gradient in order to extract landfill gas by use of mechanical blowers or compressors. Passive systems allow the natural pressure gradient created by the increase in pressure created by landfill gas generation within the landfill to mobilize the gas for collection. The applicant conservatively assumes that the GECS will have an efficiency of at least 75 percent.

Combustion of the landfill gas will result in combustion byproducts, primarily NOx and CO. Thermal NOx is formed in the combustion process as a result of the dissociation of molecular nitrogen present in air and its oxidation in the high temperature of the flame. Fuel NOx is formed similarly, although the source of the nitrogen is the fuel itself. Thermal NOx is expected to be the primary mechanism for NOx formation for this source. CO is emitted from combustion processes due to incomplete fuel combustion. Combustion design is the primary means of control of CO. The flares will be designed for maximum control of NMOCs, which should result in reducing CO emissions.

Sulfur dioxide is emitted from the flares as a result of the combustion of the sulfur present in the landfill gas and conversion of that sulfur from its various forms to sulfur dioxide. The *open* flares have an excess of oxygen available for combustion so most sulfur will be converted to sulfur dioxide. At this time, annual emissions are not expected by the applicant to exceed 10 tons per year of sulfur compounds as SO_2. However this will be reviewed annually based on the applicants Annual Operating Reports.

The possibility of SO_2 control will be considered when permitting future phases of the landfill. The technical and economic feasibility will depend on the practices at the landfill including the potential of wastes to generate sulfur compounds, the possibility of energy recovery, or new technological developments in the control of reduced sulfur compounds or SO_2.

Removal of sulfur from the landfill gas prior to combustion is a possible method to control SO_2 emissions. An example is the installation of a desulfurization technology known as LOCAT at the Waste Management Central Disposal Sanitary Landfill in Broward County. It was installed as part of an effort to control odor and to remove compounds that can corrode components of their biogas-fired engines. The Department will review the availability of such technologies at the time the project triggers PSD.

A small amount of particulate matter (assumed to be all PM_{10}) is estimated to be emitted as a result of the combustion process. This is controlled similarly to CO, so the flare design should be sufficient to minimize these emissions. Again the possibility of further CO and PM control can be evaluated when future phases are permitted and if PSD is triggered.

The Department will evaluate air pollution control requirements including possible BACT pursuant to Rule 62-212.400. These evaluations will depend on the state of technology at the time when the PSD Rules apply to the project.

The applicant has not yet chosen a flare model design. The specifications for the flares are not finalized yet. Information regarding the flare(s) will be provided in the Title V Air Operation Permit Application, which will be submitted to the Department within 180 days of start of waste disposal at the facility.

6.1 STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

The proposed flares are specifically subject to the requirements of 40 CFR 60, Subpart A, 60.18. The Class I landfill, Phase I, is subject to the requirements of 40 CFR 60 - NSPS, Subpart WWW, Standards of Performance for Municipal Solid Waste Landfills (NSPS) and of 40 CFR 63 - NESHAP, Subpart AAAA (Municipal Solid waste landfills). The Department adopted subpart WWW by reference in Rule 62-204.800, F.A.C. The principal requirements of Subpart WWW are the installation and operation of a collection and control system for landfill gas. Pursuant to this subpart, the control device may be an open flare designed and operated in accordance with 40 CFR 60.18. The collection and control systems shall be consistent with the requirements of the NSPS rules.

6.2 COMPLIANCE PROCEDURES

The applicant will be required to record the gas flow rate to each flare on a monthly average basis and measure the sulfur content of the landfill gas at least annually using ASTM Method D1072-90, or later method, and report the sulfur content results annually. The test method for visible emissions is specified by the NSPS as Method 22. Subpart A, 40 CFR 60.18 states that there shall be no visible emissions allowed from the flare, except for periods not to exceed a total of 5 minutes in any consecutive hours.

Other relevant compliance procedures are detailed in the appendices attached to the accompanying draft permit.

Objectionable odors caused by these sources are prohibited.

7. SOURCE IMPACT ANALYSIS

An impact analysis was not required for this project because it is not yet subject to the requirements of PSD. Analyses will be conducted in the future when the project triggers the PSD regulations.

8. CONCLUSION

Based on the foregoing technical evaluation of the application and additional information submitted by the applicant and other available information, the Department has made a preliminary determination that the proposed project will comply with all applicable state and federal air pollution regulations. The Department will issue a draft permit to the applicant that allows the applicant to start the construction of Phase I of the OHD facility.

It is noted that the staged manner in which the project is reviewed for PSD applicability is probably unique to landfills. This is because annual emissions are more closely related to cumulative production than to instantaneous or annual production.

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PERMITTEE:

Omni Waste of Osceola County
100 Church Street
Kissimmee, Florida 34701

Authorized Representative:
Timothy J. Salopek, President

Facility Id.	0970079
DEP Permit No.	0970079-001-AC
Project	Municipal Solid Waste Class I Landfill with two Flare Systems
SIC No.	4953
Expires:	April 30, 2006

PROJECT AND LOCATION:

For the construction and initial development of a Class I landfill consisting of four cells, a gas collection and extraction system (GCES), two flares, and ancillary equipment at the Oak Hammock Disposal facility (Phase I).

The facility is located approximately 6.5 miles south of Holopaw on Highway U.S 441 in Osceola County, Florida.

The UTM coordinates are: Zone 17; 190.4 km E and 4131.5 km N.

STATEMENT OF BASIS:

This construction permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.). The above named permittee is authorized to construct the facility in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department of Environmental Protection (Department).

ATTACHED APPENDICES MADE A PART OF THIS PERMIT:

Appendix GC	Construction Permit General Conditions
Appendix FL	40 CFR 60.18, General Control Device Requirements (Flares)
Appendix AAAA	40 CFR 63, NESHAP (Municipal Solid Waste Landfill)
Appendix WWW	40 CFR 60, NSPS (Standards of Performance for Municipal Solid Waste Landfills)

Howard L. Rhodes, Director
Division of Air Resources
Management

SUBSECTION A. FACILITY DESCRIPTION

The project is a municipal solid waste landfill on a 2179 acre site. This permit authorizes Phase I of the project, which is the construction and initial development consisting of four landfill cells, a gas extraction and collection system (GECS), two flares, and ancillary equipment on approximately 53 acres.

Future phases not covered by this permit consist of 21 landfill cells, a larger GECS, four flares, and ancillary equipment on approximately 264 acres. At ultimate build-out, the site will contain approximately 23.7 million cubic yards of waste and initial cover material and will reach a height of approximately 100 feet above local ground level.

Based on the application received this facility is a major (Title V) source of air pollution, an area source of hazardous air pollutants, and in subsequent phases will be a Major Facility with respect to the Rules for the Prevention of Significant Deterioration (PSD).

SUBSECTION B. EMISSION UNITS SUMMARY

Emissions Unit Number	Emissions Unit Description
001	Municipal Solid Waste Class I Landfill with gas extraction collection system
002	Phase I – Class I Landfill gas collection system Flare 1
003	Phase I – Class I Landfill gas collection system Flare 2

SUBSECTION C. RELEVANT DOCUMENTS

The documents listed below are not a part of this permit, but are relevant to this permitting action.

- Air Construction Permit Application received February 3, 2003
- Department's Technical Evaluation and Preliminary Determination dated February 26, 2003
- Department's Intent to Issue and Public Notice Information dated March 13, 2003

SUBSECTION D. PERMIT APPENDICES

The documents listed below are a part of this permit and provide necessary supplementary information applicable to this permitting action.

Appendix GC:	Construction Permit General Conditions
Appendix AAAA:	40 CFR 63, NESHAP for Municipal Solid Waste Landfill
Appendix FL:	40 CFR 60.18, General Control Device Requirements (Flares)
Appendix WWW:	40 CFR 60, Standards of Performance for Municipal Solid Waste Landfills

SUBSECTION E. REGULATORY CLASSIFICATION

This facility is classified as a Major or Title V Source of air pollution. It is also an Area Source with respect to Hazardous Air Pollutants (HAPs). During Phase I, this facility is not a Major Facility with respect to Rule 62-212.400, Prevention of Significant Deterioration (PSD). This facility is not in the list of the 28 Major Facility Categories per Table 62-212.400-1, F.A.C.

SUBSECTION F. PERMIT SCHEDULE

- 02/03/03 Received permit application; application complete
- 03/13/03 Distributed Notice of Intent to Issue permit
- 03/xx/03 Notice of Intent published in _____

The following specific conditions apply to all emissions units at this facility addressed by this permit.

ADMINISTRATIVE

1. Regulating Agencies: All documents related to applications for permits to construct, operate or modify an emissions unit as well as test reports should be submitted to the Florida Department of Environmental Protection, Central District Office, Air Program Administrator, 3319 Maguire Boulevard, Suite 232, Orlando, Florida 32803-3767, phone number 407/894-7555. Copies of all documents should be sent also to the Orange County Environmental Protection Division, 800 Mercy Drive, Suite 4, Orlando, Florida 32808. Permit applications pursuant to Rule 62-212.400, F.A.C., Prevention of Significant Deterioration of Air Quality (PSD), should be submitted to the Department's Bureau of Air Regulation, 2600 Blairstone Road, MS 5505, Tallahassee, Florida 32399, phone number 850/4880114.
2. General Conditions: The owner and operator is subject to and shall operate under the attached General Permit Conditions G.1 through G.15 listed in Appendix GC of this permit. General Permit Conditions are binding and enforceable pursuant to Chapter 403 of the Florida Statutes. [Rule 62-4.160, F.A.C.]
3. Terminology: The terms used in this permit have specific meanings as defined in the corresponding chapters of the Florida Administrative Code.
4. Applicable Regulations, Forms and Application Procedures: Unless otherwise indicated in this permit, the construction and operation of the subject emissions unit shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of Chapter 403, F.S. and Florida Administrative Code Chapters 62-4, 62-210, 62-204, 62-212, 62-213, 62-296, 62-297 and the Code of Federal Regulations Title 40, Part 60 and Part 63, adopted by reference in the Florida Administrative Code (F.A.C.) regulations. The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C. and follow the application procedures in Chapter 62-4, F.A.C. Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting or regulations. [Rules 62-204.800, 62-210.300 and 62-210.900, F.A.C.]
5. New or Additional Conditions: Pursuant to Rule 62-4.080, F.A.C., for good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]
6. Expiration: This air construction permit shall expire on **April 30, 2006**. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the Department's Central District Office prior to 60 days before the expiration of the permit. [Rules 62-210.300(1), 62-4.070(4), 62-4.080, and 62-4.210, F.A.C]
7. Modifications: No emissions unit or facility subject to this permit shall be constructed or modified without obtaining an air construction permit from the Department. Such permit must be obtained prior to the beginning of construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]

8. Title V Operation Permit Required: This permit authorizes construction and/or installation of the permitted emissions unit and initial operation to determine compliance with Department rules. A Title V operation permit is required for regular operation of the permitted emissions unit. The owner or operator shall apply for a Title V operation permit within 180 days after startup and shall insure it is complete prior to the expiration of this construction permit. To apply for a Title V operation permit, the applicant shall submit the appropriate application form, compliance test results, and such additional information as the Department may by law require. The application shall be submitted to the Department's Southeast District office.
[Rules 62-4.030, 62-4.050, 62-4.220, and Chapter 62-213, F.A.C.]

EMISSION LIMITING STANDARDS

9. General Visible Emissions Standard: Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer, or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density if which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20% opacity). The test method for visible emissions shall be EPA Method 9, incorporated and adopted by reference in Chapter 62-297, F.A.C. Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C. [Rule 62-296.320(4)(b)1, F.A.C.]

10. General Pollutant Emission Limiting Standards: [Rule 62-296.320(2), F.A.C.]

    No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor.

    {Note: An objectionable odor is defined in Rule 62-210.200, Definitions, F.A.C., as any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance.}

OPERATIONAL REQUIREMENTS

11. Plant Operation - Problems: If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by hazard of fire, wind or by other cause, the permittee shall immediately notify the Department's district office and, if applicable, appropriate local program. The notification shall include pertinent information as to the cause of the problem, and what steps are being taken to correct the problem and to prevent its recurrence, and where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with Department rules.
[Rule 62-4.130, F.A.C.]

12. Circumvention: No person shall circumvent any air pollution control device or allow the emission of air pollutants without the applicable air pollution control device operating properly.
[Rule 62-210.650, F.A.C.]

13. Excess Emissions:

    (a) Excess emissions resulting from start-up, shutdown or malfunction of any emissions units shall be permitted providing (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.
    [Rule 62-210.700(1), F.A.C.]

(b) Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during start-up, shutdown, or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]

COMPLIANCE MONITORING AND TESTING REQUIREMENTS

14. Required Number of Test Runs: For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured; provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five-day period. In the event that sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five-day period allowed form the test, the Secretary or his or her designee may accept the results of two complete runs as proof of compliance, provided that the arithmetic mean of the two complete runs is at least 20 percent below the allowable emission limiting standards.
[Rule 62-297.310(1), F.A.C]

{Note: This will apply in future years after installation of the flares, the details of which have not yet been provided.}

15. Operating Rate During Testing: Unless otherwise stated in the applicable emission limiting standard rule, testing of emission shall be conducted with the emission unit operation at permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impractical to test at permitted capacity, an emission unit may be tested at less than the minimum permitted capacity; in this case, subsequent emission unit operation is limited to 110 percent of the test load until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. [Rule 62-297.310(2), F.A.C.]

16. Calculation of Emission Rate: The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule.

17. Test Procedures: All test procedures shall meet all applicable requirements of Rule 62-297.310(4), F.A.C. [Rule 62-297.310(4), F.A.C.]

18. Special Compliance Tests: When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it shall require the owner or operator of the facility to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions units and to provide a report on the results of said tests to the Department.
[Rule 62-297.310(7)(b), F.A.C.]

19. Determination of Process Variables.

    (a) Required Equipment. The owner or operator of an emission unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emission data to determine the compliance of the emission unit with applicable emission limiting standards.

    (b) Accuracy of Equipment: Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value. [Rule 62-297.310(5), F.A.C.]

20. Required Stack Sampling Facilities: Sampling facilities include sampling ports, work platforms, access to work platforms, electrical power, and sampling equipment support. All stack sampling facilities must meet any Occupational Safety and Health Administration (OSHA) Safety and Health Standards described in 29 CFR Part 1910, Subparts D and E. Sampling facilities shall also conform to the requirements of Rule 62-297.310(6), F.A.C. See Appendix SS-1, Stack Sampling Facilities.

    [Rule 62-297.310(6), F.A.C.]

REPORTING AND RECORD KEEPING REQUIREMENTS

21. Test Notification: The owner or operator shall notify the Department's Central District office, Air Program and, if applicable, appropriate local program, at least 15 days prior to the date on which each formal compliance test is to begin. Notification shall include the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator. [Rule 62-297.310(7)(a)9, F.A.C.]

22. Duration of Record Keeping: Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least five years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
    [Rules 62-4.160(14)(a)&(b) and 62-213.440(1)(b)2.b., F.A.C.]

23. Test Reports: The owner or operator of an emission unit for which a compliance test is required shall file a report with the Department on the results of each such test. The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed. The test report shall provide sufficient detail on the emission unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the applicable information listed in Rule 62-297.310(8)(c), F.A.C.
    [Rule 62-297.310(8), F.A.C.]

24. Excess Emissions Report: If excess emissions occur, the owner or operator shall notify the Department within one working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Department may request a written summary report of the incident. Pursuant to the New Source Performance Standards, excess emissions shall also be reported in accordance with 40 CFR 60.7, Subpart A. [Rule 62-4.130, F.A.C.]

25. Excess Emissions Report - Malfunctions: In case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department or the appropriate local program in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report if requested by the Department. [Rule 62-210.700(6), F.A.C.]

26. Annual Operating Report for Air Pollutant Emitting Facility: The Annual Operating Report for Air Pollutant Emitting Facility shall be completed each year and shall be submitted to the Department's Central District office and, if applicable, the appropriate local program by March 1 of the following year. The report shall also include projected emission estimates for the following year and highlight any projected changes regarding status as a Major Facility with respect to the rules for the Prevention of Significant Deterioration at Rule 62-212.400, F.A.C. [Rule 62-210.370(3), F.A.C.]

THIS SECTION ADDRESSES THE FOLLOWING EMISSIONS UNIT (S) OF PHASE I.

Emissions Unit Number	Emissions Unit Description
001	Municipal Solid Waste Class I Landfill with gas extraction collection system
002	Phase I – Class I Landfill gas collection system Flare 1
003	Phase I – Class I Landfill gas collection system Flare 2

The following specific conditions apply to the emissions unit(s) listed above:

1. Regulations: These emissions units are subject to all applicable provisions of 40 CFR 60, NSPS Subpart WWW, Standards of Performance for Municipal Solid Waste Landfills, adopted and incorporated by reference in Rule 62-204.800(8)(b), F.A.C. and 40 CFR 63, NESHAP, Subpart AAAA (Municipal Solid Waste Landfills). These units are also subject to all applicable provisions of40 CFR 60, Subpart A, General Provisions, adopted and incorporated by reference in Rule 62-204.800 F.A.C.

   These units shall comply with applicable provisions of

   - 40 CFR 60.7 Notification and record keeping
   - 40 CFR 60.8 Performance tests
   - 40 CFR 60.11 Compliance with standards and maintenance requirements
   - 40 CFR 60.13 Monitoring requirements
   - 40 CFR 60.14 Modification
   - 40 CFR 60.15 Reconstruction
   - 40 CFR 60.18 General control device requirements

2. Solid Waste Disposal Rate (Daily): The solid waste disposal rate for the facility shall not exceed 4,000 tons per day. [Applicant Request, Rule 62-210.200., F.A.C., Definitions, Potential to Emit]

3. Solid Waste Disposal (Total): The solid waste disposed during Phase I shall not exceed 8,000,000 tons. [Rule 62-210.200., F.A.C., Definitions, Potential to Emit]

   {Note: According to information provided by the applicant, any greater amount would otherwise cause emissions of carbon monoxide greater than 250 tons per year after installation of the Gas Extraction and Collection System and flares}

4. Gas Extraction and Collection System (GECS): The GECS and flares (or energy recovery device such as engines) shall be installed and operational by the time 2,750,000 tons of waste have been disposed in the landfill or annual emissions of non-methane hydrocarbons (NMOC) are greater than or equal to 50 tons per year.
   [Rule 62-296.320(2), F.A.C. – Objectionable Odors Prohibited, Rule 62-204.800(8)(c), F.A.C. and Rule 62-4.070(3), F.A.C., Standards of Issuing and Denying Permit – Reasonable Assurance]

5. Hours of Operation: This emissions unit is allowed to operate continuously, i.e., 8,760 hours/year. [Rule 62-210.200(PTE), F.A.C.]

6. Emission Limits: The following emission limits apply:

   - Odor: No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor. [Rule 62-296.320(2), F.A.C.]

- Visible Emissions: Compliance with the visible emissions standard shall be determined using EPA Method 22 and shall be for the duration of 2 hours. Such tests shall be conducted within 60 days of completion of construction and initial startup operation, and annually thereafter. The required visible emissions test report shall also contain the extraction wells gas flow rate and the flare temperature data.

- Criteria Pollutants: After installation of the GECS, neither carbon monoxide (CO), sulfur dioxide (SO_2), particulate matter (PM_{10}), volatile organic compounds (VOC), nor nitrogen oxides (NO_X) emissions from the facility shall exceed 57 pounds per hour. Compliance measures shall be proposed by the applicant upon submittal of the GECS and flare design.
[Avoid applicability of 62-212.400, F.A.C. – Prevention of Significant Deterioration]

7. PSD Applicability: This facility will be subject to the Rules for the Prevention of Significant Deterioration and a determination of Best Available Control Technology (BACT) when potential annual emissions of CO, SO_2, NO_X, PM_{10}, or VOC exceed 250 tons per year (TPY). The Significant Emission Rates in Table 212.400-2 shall be applied in determining PSD applicability for those pollutants that do not exceed 250 TPY when it has been determined that at least one of the pollutants does exceed 250 TPY.

8. Project Phasing: When applicable, BACT shall be determined based on technology available when the facility becomes subject to PSD and BACT. Subsequent phasing of the project may require the permittee to demonstrate the adequacy of any previous BACT determination.
[Rule 62-212.400(6)(b), F.A.C. and 40 CFR 51.166(j)(4)]

9. Relaxations of Restrictions on Pollutant Emitting Capacity: If a previously permitted facility or modification becomes a facility or modification which would be subject to the preconstruction review requirements of this rule if it were a proposed new facility or modification solely by virtue of a relaxation in any federally enforceable limitation on the capacity of the facility or modification to emit a pollutant (such as restrictions on hours of operations), which limitation was established after August 7, 1980, then at the time of such relaxation the preconstruction review requirements of this rule shall apply to the facility or modification as though construction had not yet commence on it.
[Rule 62.212.400 (2)(g) F.A.C.]

10. Operating Parameters: The permittee shall submit to the Department Bureau of Air Regulation in Tallahassee and to the Department District Office in Orlando as soon as it is available but not later than 180 days of the submission of the Title V application, the design information about the selected flares. This information should include but not be limited to:
    - Type of flare, model number
    - Volumetric Flow
    - Instruments which are used to measure and monitor the gas flow and the flare flame temperature

    [Rule 62-4.070 (3) F.A.C.]

11. Compliance Procedures: Each owner or operator of an MSW landfill subject to the air emissions standards of Rule 62-204.800(8)(b), F.A.C., shall:
    - Comply with the gas control system requirements in 40 CFR 60.752;
    - Comply with the operational standards in 40 CFR 60.753;
    - Comply with the compliance provisions in 40 CFR 60.755; and
    - Comply with the monitoring provisions in 40 CFR 60.756.

12. Reporting and Recordkeeping: Each owner or operator of an MSW landfill to which Rule 62-204.800(8)(b), F.A.C., applies shall comply with the reporting and recordkeeping provisions of 40 CFR 60.757 and 40 CFR 60.758, as applicable.

13. Continuous Monitoring: Proper devices for the continuous monitoring and recording of the total gas flow rate from all extraction wells, and each flare flame temperature, shall be installed prior to the collection and disposal of the active landfill gases. Such devices shall be properly calibrated and maintained at all times, according to manufacturers' written instructions. [Rule 62-4.070 (3) F.A.C.]

14. Compliance Plan: An operation and maintenance plan shall be submitted to the Department's Central District Office prior to the expiration date of this permit. [Rule 62-4.070 (3) F.A.C.]

G.1 The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

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

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

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

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

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

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

(a) Have access to and copy and records that must be kept under the conditions of the permit;
(b) Inspect the facility, equipment, practices, or operations regulated or required under this permit, and,
(c) Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

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

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

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

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

G.9 In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extend it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

G.10 The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

G.11 This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

G.12 This permit or a copy thereof shall be kept at the work site of the permitted activity.

G.13 This permit also constitutes:

(a) Determination of Best Available Control Technology ( );
(b) Determination of Prevention of Significant Deterioration ( );
(c) Compliance with New Source Performance Standards (X); and
(d) Compliance with National Emission Standards for Hazardous Air Pollutants (X).

G.14 The permittee shall comply with the following:

(a) Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
(b) The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application or this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
(c) Records of monitoring information shall include:

1. The date, exact place, and time of sampling or measurements;
2. The person responsible for performing the sampling or measurements;
3. The dates analyses were performed;
4. The person responsible for performing the analyses;
5. The analytical techniques or methods used; and
6. The results of such analyses.

G.15 When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

G.9 In accepting this permit, the permittee understands and agrees that all records; notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extend it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

G.10 The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

G.11 This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

G.12 This permit or a copy thereof shall be kept at the work site of the permitted activity.

G.13 This permit also constitutes:

(a) Determination of Best Available Control Technology ( );
(b) Determination of Prevention of Significant Deterioration ( );
(c) Compliance with New Source Performance Standards (X); and
(d) Compliance with New Source Performance Standards (X).

G.14 The permittee shall comply with the following:

(a) Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
(b) The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application or this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
(c) Records of monitoring information shall include:

1. The date, exact place, and time of sampling or measurements;
2. The person responsible for performing the sampling or measurements;
3. The dates analyses were performed;
4. The person responsible for performing the analyses;
5. The analytical techniques or methods used; and
6. The results of such analyses.

G.15 When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

60.18 General control device requirements.

(a) Introduction. This section contains requirements for control devices used to comply with applicable subparts of parts 60 and 61. The requirements are placed here for administrative convenience and only apply to facilities covered by subparts referring to this section.

(b) Flares. Paragraphs (c) through (f) apply to flares.

(c) (1) Flares shall be designed for and operated with no visible emissions as determined by the methods specified in paragraph (f), except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.

(2) Flares shall be operated with a flame present at all times, as determined by the methods specified in paragraph (f).

(3) Flares shall be used only with the net heating value of the gas being combusted being 11.2 MJ/scm (300 Btu/scf) or greater if the flare is steam-assisted or air-assisted; or with the net heating value of the gas being combusted being 7.45 MJ/scm (200 Btu/scf) or greater if the flare is nonassisted. The net heating value of the gas being combusted shall be determined by the methods specified in paragraph (f).

(4) (i) Steam-assisted and nonassisted flares shall be designed for and operated with an exit velocity, as determined by the methods specified in paragraph (f)(4), less than 18.3 m/sec (60 ft/sec), except as provided in paragraphs (b)(4) (ii) and (iii).

(ii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the methods specified in paragraph (f)(4), equal to or greater than 18.3 m/sec (60 ft/sec) but less than 122 m/sec (400 ft/sec) are allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf).

(iii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the methods specified in paragraph (f)(4), less than the velocity, Vmax, as determined by the method specified in paragraph (f)(5), and less than 122 m/sec (400 ft/sec) are allowed.

(5) Air-assisted flares shall be designed and operated with an exit velocity less than the velocity, Vmax, as determined by the method specified in paragraph (f)(6).

(6) Flares used to comply with this section shall be steam-assisted, air-assisted, or nonassisted.

(d) Owners or operators of flares used to comply with the provisions of this subpart shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. Applicable subparts will provide provisions stating how owners or operators of flares shall monitor these control devices.

(e) Flares used to comply with provisions of this subpart shall be operated at all times when emissions may be vented to them.

(f) (1) Reference Method 22 shall be used to determine the compliance of flares with the visible emission provisions of this subpart. The observation period is 2 hours and shall be used according to Method 22.

(2) The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame.

(3) The net heating value of the gas being combusted in a flare shall be calculated using the following equation:

$$H_T = K\sum_{i=1}^{n} C_i H_i$$

where:

H_T =Net heating value of the sample, MJ/scm; where the net enthalpy per mole of offgas is based on combustion at 25 °C and 760 mm Hg, but the standard temperature for determining the volume corresponding to one mole is 20 °C;

k = Constant

$$1.740 x 10^{-7} \left(\frac{1}{ppm}\right)\left(\frac{gmole}{scm}\right)\left(\frac{MJ}{kcal}\right)$$

where the standard temperature for (gmole/scm) is 20°C;

C_i =Concentration of sample component i in ppm on a wet basis, as measured for organics by Reference Method 18 and measured for hydrogen and carbon monoxide by ASTM D1946–77 (Incorporated by reference as specified in § 60.17); and

H_i =Net heat of combustion of sample component i, kcal/ g mole at 25 °C and 760 mm Hg. The heats of combustion may be determined using ASTM D2382–76 (incorporated by reference as specified in § 60.17) if published values are not available or cannot be calculated.

(4) The actual exit velocity of a flare shall be determined by dividing the volumetric flowrate (in units of standard temperature and pressure), as determined by Reference Methods 2, 2A, 2C, or 2D as appropriate; by the unobstructed (free) cross sectional area of the flare tip.

(5) The maximum permitted velocity, V_{max}, for flares complying with paragraph (c)(4)(iii) shall be determined by the following equation.

$Log_{10}(V_{max})=(H_T+28.8)/31.7$

V_{max} =Maximum permitted velocity, M/sec

28.8=Constant

31.7=Constant

H_T =The net heating value as determined in paragraph (f)(3).

(6) The maximum permitted velocity, V_{max}, for air-assisted flares shall be determined by the following equation.

V_{max} =8.706+0.7084 (H_T)

V_{max} =Maximum permitted velocity, m/sec

8.706 =Constant

0.7084 =Constant

H_T =The net heating value as determined in paragraph (f)(3).

Updated 1/16/03

Source: Federal Register dated 1/16/03

Subpart AAAA--National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills

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Appendix to Subpart AAAA of Part 63
Appendix 1 of Subpart AAAA of Part 63--Applicability of NESHAP General Provisions to Subpart AAAA

Sec. 63.1930 What is the purpose of this subpart?

This subpart establishes national emission standards for hazardous air pollutants for existing and new municipal solid waste (MSW) landfills. This subpart requires all landfills described in Sec. 63.1935 to meet the requirements of 40 CFR part 60, subpart Cc or WWW and requires timely control of bioreactors. This subpart also requires such landfills to meet the startup, shutdown, and malfunction (SSM) requirements of the general provisions of this part and provides that compliance with the operating conditions shall be demonstrated by parameter monitoring results that are within the specified ranges. It also includes additional reporting requirements.

Sec. 63.1935 Am I subject to this subpart?

You are subject to this subpart if you meet the criteria in paragraph (a) or (b) of this section.

(a) You are subject to this subpart if you own or operate a MSW landfill that has accepted waste since November 8, 1987 or has additional capacity for waste deposition and meets any one of the three criteria in paragraphs (a)(1) through (3) of this section:

(1) Your MSW landfill is a major source as defined in 40 CFR 63.2 of subpart A.

(2) Your MSW landfill is collocated with a major source as defined in 40 CFR 63.2 of subpart A.

(3) Your MSW landfill is an area source landfill that has a design capacity equal to or greater than 2.5 million megagrams (Mg) and 2.5 million cubic meters (m^3) and has estimated uncontrolled emissions equal to or greater than 50 megagrams per year (Mg/yr) NMOC as calculated according to Sec. 60.754(a) of the MSW landfills new source performance standards in 40 CFR part 60, subpart WWW, the Federal plan, or an EPA approved and effective State or tribal plan that applies to your landfill.

(b) You are subject to this subpart if you own or operate a MSW landfill that has accepted waste since November 8, 1987 or has additional capacity for waste deposition, that includes a bioreactor, as defined in Sec. 63.1990, and that meets any one of the criteria in paragraphs (b)(1) through (3) of this section:

(1) Your MSW landfill is a major source as defined in 40 CFR 63.2 of subpart A.

(2) Your MSW landfill is collocated with a major source as defined in 40 CFR 63.2 of subpart A.

(3) Your MSW landfill is an area source landfill that has a design capacity equal to our greater than 2.5 million Mg and 2.5 million m\3\ and that is not permanently closed as of January 16, 2003.

Sec. 63.1940 What is the affected source of this subpart?

(a) An affected source of this subpart is a MSW landfill, as defined in Sec. 63.1990, that meets the criteria in Sec. 63.1935(a) or (b). The affected source includes the entire disposal facility in a contiguous geographic space where household waste is placed in or on land, including any portion of the MSW landfill operated as a bioreactor.

(b) A new affected source of this subpart is an affected source that commenced construction or reconstruction after November 7, 2000. An affected source is reconstructed if it meets the definition of reconstruction in 40 CFR 63.2 of subpart A.

(c) An affected source of this subpart is existing if it is not new.

Sec. 63.1945 When do I have to comply with this subpart?

(a) If your landfill is a new affected source, you must comply with this subpart by January 16, 2003 or at the time you begin operating, whichever is last.

(b) If your landfill is an existing affected source, you must comply with this subpart by January 16, 2004.

c) If your landfill is a new affected source and is a major source or is collocated with a major source, you must comply with the requirements in Sec. Sec. 63.1955(b) and 63.1960 through 63.1980 by the date your landfill is required to install a collection and control system by 40 CFR 60.752(b)(2) of subpart WWW.

(d) If your landfill is an existing affected source and is a major source or is collocated with a major source, you must comply with the requirements in Sec. Sec. 63.1955(b) and 63.1960 through 63.1980 by the date your landfill is required to install a collection and control system by 40 CFR 60.752(b)(2) of subpart WWW, the Federal plan, or EPA approved and effective State or tribal plan that applies to your landfill or by January 13, 2004, whichever occurs later.

(e) If your landfill is a new affected source and is an area source meeting the criteria in Sec. 63.1935(a)(3), you must comply with the requirements of Sec. Sec. 63.1955(b) and 63.1960 through 63.1980 by the date your landfill is required to install a collection and control system by 40 CFR 60.752(b)(2) of subpart WWW.

(f) If your landfill is an existing affected source and is an area source meeting the criteria in Sec. 63.1935(a)(3), you must comply with the requirements in Sec. Sec. 63.1955(b) and 63.1960 through 63.1980 by the date your landfill is required to install a collection and control system by 40 CFR 60.752(b)(2) of subpart WWW, the Federal plan, or EPA approved and effective State or tribal plan that applies to your landfill or by January 16, 2004, whichever occurs later.

Sec. 63.1947 When do I have to comply with this subpart if I own or operate a bioreactor?

You must comply with this subpart by the dates specified in Sec. 63.1945(a) or (b) of this subpart. If you own or operate a bioreactor located at a landfill that is not permanently closed as of January 16, 2003 and has a design capacity equal to or greater than 2.5 million Mg and 2.5 million m\3\, then you must install and operate a collection and control system that meets the criteria in 40 CFR 60.752(b)(2)(v) of part 60, subpart WWW, the Federal plan, or EPA approved and effective State plan according to the schedule specified in paragraph (a), (b), or (c) of this section.

(a) If your bioreactor is at a new affected source, then you must meet the requirements in paragraphs (a)(1) and (2) of this section:

(1) Install the gas collection and control system for the bioreactor before initiating liquids addition.

(2) Begin operating the gas collection and control system within 180 days after initiating liquids addition or within 180 days after achieving a moisture content of 40 percent by weight, whichever is later. If you choose to begin gas collection and control system operation 180 days after achieving a 40 percent moisture content instead of 180 days after liquids addition, use the procedures in Sec. 63.1980(g) and (h) to determine when the bioreactor moisture content reaches 40 percent.

(b) If your bioreactor is at an existing affected source, then you must install and begin operating the gas collection and control system for the bioreactor by January 17, 2006 or by the date your bioreactor is required to install a gas collection and control system under 40 CFR part 60, subpart WWW, the Federal plan, or EPA approved and effective State plan or tribal plan that applies to your landfill, whichever is earlier.

(c) If your bioreactor is at an existing affected source and you do not initiate liquids addition to your bioreactor until later than January 17, 2006, then you must meet the requirements in paragraphs (c)(1) and (2) of this section:

(1) Install the gas collection and control system for the bioreactor before initiating liquids addition.

(2) Begin operating the gas collection and control system within 180 days after initiating liquids addition or within 180 days after achieving a moisture content of 40 percent by weight, whichever is later. If you choose to begin gas collection and control system operation 180 days after achieving a 40 percent moisture content instead of 180 days after liquids addition, use the procedures in Sec. 63.1980(g) and (h) to determine when the bioreactor moisture content reaches 40 percent.

Sec. 63.1950 When am I no longer required to comply with this subpart?

You are no longer required to comply with the requirements of this subpart when you are no longer required to apply controls as specified in 40 CFR 60.752(b)(2)(v) of subpart WWW, or the Federal plan or EPA approved and effective State plan or tribal plan that implements 40 CFR part 60, subpart Cc, whichever applies to your landfill.

Sec. 63.1952 When am I no longer required to comply with the requirements of this subpart if I own or operate a bioreactor?

If you own or operate a landfill that includes a bioreactor, you are no longer required to comply with the requirements of this subpart for the bioreactor provided you meet the conditions of either paragraphs (a) or (b).

(a) Your affected source meets the control system removal criteria in 40 CFR 60.752(b)(2)(v) of part 60, subpart WWW or the bioreactor meets the criteria for a nonproductive area of the landfill in 40 CFR 60.759(a)(3)(ii) of part 60, subpart WWW.

(b) The bioreactor portion of the landfill is a closed landfill as defined in 40 CFR 60.751, subpart WWW, you have permanently ceased adding liquids to the bioreactor, and you have not added liquids to the bioreactor for at least 1 year. A closure report for the bioreactor must be submitted to the Administrator as provided in 40 CFR 60.757(d) of subpart WWW.

(c) Compliance with the bioreactor control removal provisions in this section constitutes compliance with 40 CFR part 60, subpart WWW or the Federal plan, whichever applies to your bioreactor.

Sec. 63.1955 What requirements must I meet?

(a) You must fulfill one of the requirements in paragraph (a)(1) or (2) of this section, whichever is applicable:

(1) Comply with the requirements of 40 CFR part 60, subpart WWW.

(2) Comply with the requirements of the Federal plan or EPA approved and effective State plan or tribal plan that implements 40 CFR part 60, subpart Cc.

(b) If you are required by 40 CFR 60.752(b)(2) of subpart WWW, the Federal plan, or an EPA approved and effective State or tribal plan to install a collection and control system, you must comply with the requirements in Sec. Sec. 63.1960 through 63.1985 and with the general provisions of this part specified in table 1 of this subpart.

(c) For approval of collection and control systems that include any alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping or reporting provisions, you must follow the procedures in 40 CFR 60.752(b)(2). If alternatives have

already been approved under 40 CFR part 60 subpart WWW or the Federal plan, or EPA approved and effective State or tribal plan, these alternatives can be used to comply with this subpart, except that all affected sources must comply with the SSM requirements in Subpart A of this part as specified in Table 1 of this subpart and all affected sources must submit compliance reports every 6 months as specified in Sec. 63.1980(a) and (b), including information on all deviations that occurred during the 6-month reporting period. Deviations for continuous emission monitors or numerical continuous parameter monitors must be determined using a 3 hour monitoring block average.

(d) If you own or operate a bioreactor that is located at a MSW landfill that is not permanently closed and has a design capacity equal to or greater than 2.5 million Mg and 2.5 million m\3\, then you must meet the requirements of paragraph (a) and the additional requirements in paragraphs (d)(1) and (2) of this section.

(1) You must comply with the general provisions specified in Table 1 of this subpart and Sec. Sec. 63.1960 through 63.1985 starting on the date you are required to install the gas collection and control system.

(2) You must extend the collection and control system into each new cell or area of the bioreactor prior to initiating liquids addition in that area, instead of the schedule in 40 CFR 60.752(b)(2)(ii)(A)(2).

Sec. 63.1960 How is compliance determined?

Compliance is determined in the same way it is determined for 40 CFR part 60, subpart WWW, including performance testing, monitoring of the collection system, continuous parameter monitoring, and other credible evidence. In addition, continuous parameter monitoring data, collected under 40 CFR 60.756(b)(1), (c)(1), and (d) of subpart WWW, are used to demonstrate compliance with the operating conditions for control systems. If a deviation occurs, you have failed to meet the control device operating conditions described in this subpart and have deviated from the requirements of this subpart. Finally, you must develop and implement a written SSM plan according to the provisions in 40 CFR 63.6(e)(3). A copy of the SSM plan must be maintained on site. Failure to write, implement, or maintain a copy of the SSM plan is a deviation from the requirements of this subpart.

Sec. 63.1965 What is a deviation?

A deviation is defined in Sec. 63.1990. For the purposes of the landfill monitoring and SSM plan requirements, deviations include the items in paragraphs (a) through (c) of this section.

(a) A deviation occurs when the control device operating parameter boundaries described in 40 CFR 60.758(c)(1) of subpart WWW are exceeded.

(b) A deviation occurs when 1 hour or more of the hours during the 3-hour block averaging period does not constitute a valid hour of data. A valid hour of data must have measured values for at least three 15-minute monitoring periods within the hour.

(c) A deviation occurs when a SSM plan is not developed, implemented, or maintained on site.

Sec. 63.1975 How do I calculate the 3-hour block average used to demonstrate compliance?

Averages are calculated in the same way as they are calculated in 40 CFR part 60, subpart WWW, except that the data collected during the events listed in paragraphs (a), (b), (c), and (d) of this section are not to be included in any average computed under this subpart:

(a) Monitoring system breakdowns, repairs, calibration checks, and zero (low-level) and high-level adjustments.
(b) Startups.
(c) Shutdowns.
(d) Malfunctions.

Sec. 63.1980 What records and reports must I keep and submit?

(a) Keep records and reports as specified in 40 CFR part 60, subpart WWW, or in the Federal plan, EPA approved State plan or tribal plan that implements 40 CFR part 60, subpart Cc, whichever applies to your landfill, with one exception: You must submit the annual report described in 40 CFR 60.757(f) every 6 months.

(b) You must also keep records and reports as specified in the general provisions of 40 CFR part 60 and this part as shown in Table 1 of this subpart. Applicable records in the general provisions include items such as SSM plans and the SSM plan reports.

(c) For bioreactors at new affected sources you must submit the initial semiannual compliance report and performance test results described in 40 CFR 60.757(f) within 180 days after the date you are required to begin operating the gas collection and control system by Sec. 63.1947(a)(2) of this subpart.

(d) For bioreactors at existing affected sources, you must submit the initial semiannual compliance report and performance test results described in 40 CFR 60.757(f) within 180 days after the compliance date specified in Sec. 63.1947(b) of this subpart, unless you have previously submitted a compliance report for the bioreactor required by 40 CFR part 60, subpart WWW, the Federal plan, or an EPA approved and effective State plan or tribal plan.

(e) For bioreactors that are located at existing affected sources, but do not initiate liquids addition until later than the compliance date in Sec. 63.1947(b) of this subpart, you must submit the initial semiannual compliance report and performance tests results described in 40 CFR 60.757(f) within 180 days after the date you are required to begin operating the gas collection and control system by Sec. 63.1947(c) of this subpart.

(f) If you must submit a semiannual compliance report for a bioreactor as well as a semiannual compliance report for a conventional portion of the same landfill, you may delay submittal of a subsequent semiannual compliance report for the bioreactor according to paragraphs (f)(1) through (3) of this section so that the reports may be submitted on the same schedule.

(1) After submittal of your initial semiannual compliance report and performance test results for the bioreactor, you may delay submittal of the subsequent semiannual compliance report for the bioreactor until the date the initial or subsequent semiannual compliance report is due for the conventional portion of your landfill.

(2) You may delay submittal of your subsequent semiannual compliance report by no more than 12 months after the due date for submitting the initial semiannual compliance report and performance test results described in 40 CFR 60.757(f) for the bioreactor. The report shall

cover the time period since the previous semiannual report for the bioreactor, which would be a period of at least 6 months and no more than 12 months.

(3) After the delayed semiannual report, all subsequent semiannual reports for the bioreactor must be submitted every 6 months on the same date the semiannual report for the conventional portion of the landfill is due.

(g) If you add any liquids other than leachate in a controlled fashion to the waste mass and do not comply with the bioreactor requirements in Sec. Sec. 63.1947, 63.1955(c) and 63.1980(c) through (f) of this subpart, you must keep a record of calculations showing that the percent moisture by weight expected in the waste mass to which liquid is added is less than 40 percent. The calculation must consider the waste mass, moisture content of the incoming waste, mass of water added to the waste including leachate recirculation and other liquids addition and precipitation, and the mass of water removed through leachate or other water losses. Moisture level sampling or mass balances calculations can be used. You must document the calculations and the basis of any assumptions. Keep the record of the calculations until you cease liquids addition.

(h) If you calculate moisture content to establish the date your bioreactor is required to begin operating the collection and control system under Sec. 63.1947(a)(2) or (c)(2), keep a record of the calculations including the information specified in paragraph (g) of this section for 5 years. Within 90 days after the bioreactor achieves 40 percent moisture content, report the results of the calculation, the date the bioreactor achieved 40 percent moisture content by weight, and the date you plan to begin collection and control system operation.

Sec. 63.1985 Who enforces this subpart?

(a) This subpart can be implemented and enforced by the U.S. EPA, or a delegated authority such as the applicable State, local, or tribal agency. If the EPA Administrator has delegated authority to a State, local, or tribal agency, then that agency as well as the U.S. EPA has the authority to implement and enforce this subpart. Contact the applicable EPA Regional Office to find out if this subpart is delegated to a State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under subpart E of this part, the authorities contained in paragraph (c) of this section are retained by the EPA Administrator and are not transferred to the State, local, or tribal agency.

(c) The authorities that will not be delegated to State, local, or tribal agencies are as follows. Approval of alternatives to the standards in Sec. 63.1955. Where these standards reference another subpart, the cited provisions will be delegated according to the delegation provisions of the referenced subpart.

Sec. 63.1990 What definitions apply to this subpart?

Terms used in this subpart are defined in the Clean Air Act, 40 CFR part 60, subparts A, Cc, and WWW; 40 CFR part 62, subpart GGG, and subpart A of this part, and this section that follows:

Bioreactor means a MSW landfill or portion of a MSW landfill where any liquid other than leachate (leachate includes landfill gas condensate) is added in a controlled fashion into the waste mass (often in combination with recirculating leachate) to reach a minimum average

moisture content of at least 40 percent by weight to accelerate or enhance the anaerobic (without oxygen) biodegradation of the waste.

Deviation means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

(1) Fails to meet any requirement or obligation established by this subpart, including, but not limited to, any emissions limitation (including any operating limit) or work practice standard;

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or

(3) Fails to meet any emission limitation, (including any operating limit), or work practice standard in this subpart during SSM, regardless of whether or not such failure is permitted by this subpart.

Emissions limitation means any emission limit, opacity limit, operating limit, or visible emissions limit.

EPA approved State plan means a State plan that EPA has approved based on the requirements in 40 CFR part 60, subpart B to implement and enforce 40 CFR part 60, subpart Cc. An approved State plan becomes effective on the date specified in the notice published in the Federal Register announcing EPA's approval.

Federal plan means the EPA plan to implement 40 CFR part 60, subpart Cc for existing MSW landfills located in States and Indian country where State plans or tribal plans are not currently in effect. On the effective date of an EPA approved State or tribal plan, the Federal plan no longer applies. The Federal plan is found at 40 CFR part 62, subpart GGG.

Municipal solid waste landfill or MSW landfill means an entire disposal facility in a contiguous geographical space where household waste is placed in or on land. A municipal solid waste landfill may also receive other types of RCRA Subtitle D wastes (see Sec. 257.2 of this chapter) such as commercial solid waste, nonhazardous sludge, conditionally exempt small quantity generator waste, and industrial solid waste. Portions of a municipal solid waste landfill may be separated by access roads. A municipal solid waste landfill may be publicly or privately owned. A municipal solid waste landfill may be a new municipal solid waste landfill, an existing municipal solid waste landfill, or a lateral expansion.

Tribal plan means a plan submitted by a tribal authority pursuant to 40 CFR parts 9, 35, 49, 50, and 81 to implement and enforce 40 CFR part 60, subpart Cc.

Work practice standard means any design, equipment, work practice, or operational standard, or combination thereof, that is promulgated pursuant to section 112(h) of the Clean Air Act.

As stated in Sec. 63.1955 and 63.1980, you must meet each requirement in the following table that applies to you.

Appendix 1 of Subpart AAAA of Part 63--Applicability of NESHAP General Provisions to Subpart AAAA

§ 63.1 Applicability.

(a) *General.* **Affected Sources are already subject to the provisions of paragraphs (a)(10)-(12) through the same provisions under 40 CFR, part 60 subpart A.**

(1) Terms used throughout this part are defined in § 63.2 or in the Clean Air Act (Act) as amended in 1990, except that individual subparts of this part may include specific definitions

in addition to or that supersede definitions in § 63.2.

(2) This part contains national emission standards for hazardous air pollutants (NESHAP) established pursuant to section 112 of the Act as amended November 15, 1990. These standards regulate specific categories of stationary sources that emit (or have the potential to emit) one or more hazardous air pollutants listed in this part pursuant to section 112(b) of the Act. This section explains the applicability of such standards to sources affected by them. The standards in this part are independent of NESHAP contained in 40 CFR part 61. The NESHAP in part 61 promulgated by signature of the Administrator before November 15, 1990 (i.e., the date of enactment of the Clean Air Act Amendments of 1990) remain in effect until they are amended, if appropriate, and added to this part.

(3) No emission standard or other requirement established under this part shall be interpreted, construed, or applied to diminish or replace the requirements of a more stringent emission limitation or other applicable requirement established by the Administrator pursuant to other authority of the Act (section 111, part C or D or any other authority of this Act), or a standard issued under State authority. The Administrator may specify in a specific standard under this part that facilities subject to other provisions under the Act need only comply with the provisions of that standard.

(4) (i) Each relevant standard in this part 63 must identify explicitly whether each provision in this subpart A is or is not included in such relevant standard.

(ii) If a relevant part 63 standard incorporates the requirements of 40 CFR part 60, part 61, or other part 63 standards, the relevant part 63 standard must identify explicitly the applicability of each corresponding part 60,part 61, or other part 63 subpart A (General) Provision.

(iii) The General Provisions in this Subpart A do not apply to regulations developed pursuant to section112(r) of the amended Act., unless otherwise specified in those regulations.

(5) [Reserved]

(6) To obtain the most current list of categories of sources to be regulated under section 112 of the Act, or to obtain the most recent regulation promulgation schedule established pursuant to section 112(e) of the Act, contact the Office of the Director, Emission Standards Division, Office of Air Quality Planning and Standards, U.S. EPA (MD–13), Research Triangle Park, North Carolina 27711.

(7) [Reserved]

(8) [Reserved]

(9) [Reserved]

(10) For the purposes of this part, time periods specified in days shall be measured in calendar days, even if the word ''calendar'' is absent, unless otherwise specified in an applicable requirement.

(11) For the purposes of this part, if an explicit postmark deadline is not specified in an applicable requirement for the submittal of a notification, application, test plan, report, or other written communication to the Administrator, the owner or operator shall postmark the submittal on or before the number of days specified in the applicable requirement. For example, if a notification must be submitted 15 days before a particular event is scheduled to take place, the notification shall be postmarked on or before 15 days preceding the event; likewise, if a notification must be submitted 15 days after a particular event takes place, the notification shall be postmarked on or before 15 days following the end of the event. The use of reliable non-Government mail carriers that provide indications of verifiable delivery of information required to be submitted to the Administrator, similar to the postmark provided by the U.S. Postal Service, or alternative means of delivery agreed to by the permitting authority, is acceptable.

(12) Notwithstanding time periods or postmark deadlines specified in this part for the submittal of information to the Administrator by an owner or operator, or the review of such information by the Administrator, such time periods or deadlines may be changed by mutual agreement between the owner or operator and the Administrator. Procedures governing the implementation of this provision are specified in § 63.9(i).

(13) [Reserved]

(14) [Reserved]

(b) *Initial applicability determination for this part.*

(1) The provisions of this part apply to the owner or operator of any stationary source that

(i) Emits or has the potential to emit any hazardous air pollutant listed in or pursuant to section 112(b) of the Act; and

(ii) Is subject to any standard, limitation, prohibition, or other federally enforceable requirement established pursuant to this part.

(2) [Reserved]

(3) An owner or operator of a stationary source who is in the relevant source category and who determines that the source is not subject to a relevant standard or other requirement established under this part, must keep a record as specified in § 63.10(b)(3).

(c) *Applicability of this part after a relevant standard has been set under this part.*

[Reserved]

(d) [Reserved]

(e) If the Administrator promulgates an emission standard under section 112(d) or (h) of the Act that is applicable to a source subject to an emission limitation by permit established under section 112(j) of the Act, and the requirements under the section 112(j) emission limitation are substantially as effective as the promulgated emission standard, the owner or operator may request the permitting authority to revise the source's title V permit to reflect that the emission limitation in the permit satisfies the requirements of the promulgated emission standard. The process by which the permitting authority determines whether the section 112(j) emission limitation is substantially as effective as the promulgated emission standard must include, consistent with part 70 or 71 of this chapter, the opportunity for full public, EPA, and affected State review (including the opportunity for EPA's objection) prior to the permit revision being finalized. A negative determination by the permitting authority constitutes final action for purposes of review and appeal under the applicable title V operating permit program.

§ 63.2 Definitions.

The terms used in this part are defined in the Act or in this section as follows:

Act means the Clean Air Act (42 U.S.C. 7401 et seq., as amended by Pub. L. 101–549, 104 Stat. 2399).

Actual emissions is defined in subpart D of this part for the purpose of granting a compliance extension for an early reduction of hazardous air pollutants.

Administrator means the Administrator of the United States Environmental Protection Agency or his or her authorized representative (e.g., a State that has been delegated the authority to implement the provisions of this part).

Affected source, for the purposes of this part, means the collection of equipment, activities, or both within a single contiguous area and under common control that is included in a

section 112(c) source category or subcategory for which a section 112(d) standard or other relevant standard is established pursuant to section 112 of the Act. Each relevant standard will define the "affected source," as defined in this paragraph unless a different definition is warranted based on a published justification as to why this definition would result in significant administrative, practical, or implementation problems and why the different definition would resolve those problems. The term "affected source," as used in this part, is separate and distinct from any other use of that term in EPA regulations such as those implementing title IV of the Act. Affected source may be defined differently for part 63 than affected facility and stationary source in parts 60 and 61, respectively. This definition of "affected source," and the procedures for adopting an alternative definition of "affected source," shall apply to each section 112(d) standard for which the initial proposed rule is signed by the Administrator after June 30, 2002.

Alternative emission limitation means conditions established pursuant to sections 112(i)(5) or 112(i)(6) of the Act by the Administrator or by a State with an approved permit program.

Alternative emission standard means an alternative means of emission limitation that, after notice and opportunity for public comment, has been demonstrated by an owner or operator to the Administrator's satisfaction to achieve a reduction in emissions of any air pollutant at least equivalent to the reduction in emissions of such pollutant achieved under a relevant design, equipment, work practice, or operational emission standard, or combination thereof, established under this part pursuant to section 112(h) of the Act.

Alternative test method means any method of sampling and analyzing for an air pollutant that is not a test method in this chapter and that has been demonstrated to the Administrator's satisfaction, using Method 301 in Appendix A of this part, to produce results adequate for the Administrator's determination that it may be used in place of a test method specified in this part.

Approved permit program means a State permit program approved by the Administrator as meeting the requirements of part 70 of this chapter or a Federal permit program established in this chapter pursuant to title V of the Act (42 U.S.C. 7661).

Area source means any stationary source of hazardous air pollutants that is not a major source as defined in this part.

Commenced means, with respect to construction or reconstruction of an affected source, that an owner or operator has undertaken a continuous program of construction or reconstruction or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of construction or reconstruction.

Compliance date means the date by which an affected source is required to be in compliance with a relevant standard, limitation, prohibition, or any federally enforceable requirement established by the Administrator (or a State with an approved permit program) pursuant to section 112 of the Act.

Compliance schedule means:

(1) In the case of an affected source that is in compliance with all applicable requirements established under this part, a statement that the source will continue to comply with such requirements; or

(2) In the case of an affected source that is required to comply with applicable requirements by a future date, a statement that the source will meet such requirements on a timely basis and, if required by an applicable requirement, a detailed schedule of the dates by which each step toward compliance will be reached; or

(3) In the case of an affected source not in compliance with all applicable requirements established under this part, a schedule of remedial measures, including an enforceable sequence of actions or operations with milestones and a schedule for the submission of certified progress reports, where applicable, leading to compliance with a relevant standard, limitation, prohibition, or any federally enforceable requirement established pursuant to section 112 of the Act for which

the affected source is not in compliance. This compliance schedule shall resemble and be at least as stringent as that contained in any judicial consent decree or administrative order to which the source is subject. Any such schedule of compliance shall be supplemental to, and shall not sanction non-compliance with, the applicable requirements on which it is based.

Construction means the on-site fabrication, erection, or installation of an affected source. Construction does not include the removal of all equipment comprising an affected source from an existing location and reinstallation of such equipment at a new location. The owner or operator of an existing affected source that is relocated may elect not to reinstall minor ancillary equipment including, but not limited to, piping, ductwork, and valves. However, removal and reinstallation of an affected source will be construed as reconstruction if it satisfies the criteria for reconstruction as defined in this section. The costs of replacing minor ancillary equipment must be considered in determining whether the existing affected source is reconstructed.

Continuous emission monitoring system (CEMS) means the total equipment that may be required to meet the data acquisition and availability requirements of this part, used to sample, condition (if applicable), analyze, and provide a record of emissions.

Continuous monitoring system (CMS) is a comprehensive term that may include, but is not limited to, continuous emission monitoring systems, continuous opacity monitoring systems, continuous parameter monitoring systems, or other manual or automatic monitoring that is used for demonstrating compliance with an applicable regulation on a continuous basis as defined by the regulation.

Continuous opacity monitoring system (COMS) means a continuous monitoring system that measures the opacity of emissions.

Continuous parameter monitoring system means the total equipment that may be required to meet the data acquisition and availability requirements of this part, used to sample, condition (if applicable), analyze, and provide a record of process or control system parameters.

Effective date means:

(1) With regard to an emission standard established under this part, the date of promulgation in the FEDERAL REGISTER of such standard; or

(2) With regard to an alternative emission limitation or equivalent emission limitation determined by the Administrator (or a State with an approved permit program), the date that the alternative emission limitation or equivalent emission limitation becomes effective according to the provisions of this part.

Emission standard means a national standard, limitation, prohibition, or other regulation promulgated in a subpart of this part pursuant to sections 112(d), 112(h), or 112(f) of the Act.

Emissions averaging is a way to comply with the emission limitations specified in a relevant standard, whereby an affected source, if allowed under a subpart of this part, may create emission credits by reducing emissions from specific points to a level below that required by the relevant standard, and those credits are used to offset emissions from points that are not controlled to the level required by the relevant standard.

EPA means the United States Environmental Protection Agency.

Equivalent emission limitation means any maximum achievable control technology emission limitation or requirements which are applicable to a major source of hazardous air pollutants and are adopted by the Administrator (or a State with an approved permit program) on a case-by-case basis, pursuant to section 112(g) or (j) of the Act.

Excess emissions and continuous monitoring system performance report is a report that must be submitted periodically by an affected source in order to provide data on its compliance with relevant emission limits, operating parameters, and the performance of its continuous parameter monitoring systems.

Existing source means any affected source that is not a new source.

Federally enforceable means all limitations and conditions that are enforceable by the Administrator and citizens under the Act or that are enforceable under other statutes administered by the Administrator. Examples of federally enforceable limitations and conditions include, but are not limited to:

(1) Emission standards, alternative emission standards, alternative emission limitations, and equivalent emission limitations established pursuant to section 112 of the Act as amended in 1990;

(2) New source performance standards established pursuant to section 111 of the Act, and emission standards established pursuant to section 112 of the Act before it was amended in 1990;

(3) All terms and conditions in a title V permit, including any provisions that limit a source's potential to emit, unless expressly designated as not federally enforceable;

(4) Limitations and conditions that are part of an approved State Implementation Plan (SIP) or a Federal Implementation Plan (FIP);

(5) Limitations and conditions that are part of a Federal construction permit issued under 40 CFR 52.21 or any construction permit issued under regulations approved by the EPA in accordance with 40 CFR part 51;

(6) Limitations and conditions that are part of an operating permit where the permit and the permitting program pursuant to which it was issued meet all of the following criteria:

(i) The operating permit program has been submitted to and approved by EPA into a State implementation plan (SIP) under section 110 of the CAA;

(ii) The SIP imposes a legal obligation that operating permit holders adhere to the terms and limitations of such permits and provides that permits which do not conform to the operating permit program requirements and the requirements of EPA's underlying regulations may be deemed not "federally enforceable" by EPA;

(iii) The operating permit program requires that all emission limitations, controls, and other requirements imposed by such permits will be at least as stringent as any other applicable limitations and requirements contained in the SIP or enforceable under the SIP, and that the program may not issue permits that waive, or make less stringent, any limitations or requirements contained in or issued pursuant to the SIP, or that are otherwise "federally enforceable";

(iv) The limitations, controls, and requirements in the permit in question are permanent, quantifiable, and otherwise enforceable as a practical matter; and

(v) The permit in question was issued only after adequate and timely notice and opportunity for comment for EPA and the public.

(7) Limitations and conditions in a State rule or program that has been approved by the EPA under subpart E of this part for the purposes of implementing and enforcing section 112; and

(8) Individual consent agreements that the EPA has legal authority to create.

Fixed capital cost means the capital needed to provide all the depreciable components of an existing source.

Fugitive emissions means those emissions from a stationary source that could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening. Under section 112 of the Act, all fugitive emissions are to be considered in determining whether a stationary source is a major source.

Hazardous air pollutant means any air pollutant listed in or pursuant to section 112(b) of the Act.

Issuance of a part 70 permit will occur, if the State is the permitting authority, in accordance with the requirements of part 70 of this chapter and the applicable, approved State permit program. When the EPA is the permitting authority, issuance of a title V permit occurs immediately after the EPA takes final action on the final permit.

Major source means any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit considering controls, in the aggregate, 10 tons per year or more of any hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants, unless the Administrator establishes a lesser quantity, or in the case of radionuclides, different criteria from those specified in this sentence.

Malfunction means any sudden, infrequent, and not reasonably preventable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

Monitoring means the collection and use of measurement data or other information to control the operation of a process or pollution control device or to verify a work practice standard relative to assuring compliance with applicable requirements. Monitoring is composed of four elements:

(1) Indicator(s) of performance -- the parameter or parameters you measure or observe for demonstrating proper operation of the pollution control measures or compliance with the applicable emissions limitation or standard. Indicators of performance may include direct or predicted emissions measurements (including opacity), operational parametric values that correspond to process or control device (and capture system) efficiencies or emissions rates, and recorded findings of inspection of work practice activities, materials tracking, or design characteristics. Indicators may be expressed as a single maximum or minimum value, a function of process variables (for example, within a range of pressure drops), a particular operational or work practice status (for example, a damper position, completion of a waste recovery task, materials tracking), or an interdependency between two or among more than two variables.

(2) Measurement techniques -- the means by which you gather and record information of or about the indicators of performance. The components of the measurement technique include the detector type, location and installation specifications, inspection procedures, and quality assurance and quality control measures. Examples of measurement techniques include continuous emission monitoring systems, continuous opacity monitoring systems, continuous parametric monitoring systems, and manual inspections that include making records of process conditions or work practices.

(3) Monitoring frequency -- the number of times you obtain and record monitoring data over a specified time interval. Examples of monitoring frequencies include at least four points equally spaced for each hour for continuous emissions or parametric monitoring systems, at least every 10 seconds for continuous opacity monitoring systems, and at least once per operating day (or week, month, etc.) for work practice or design inspections.

(4) Averaging time -- the period over which you average and use data to verify proper operation of the pollution control approach or compliance with the emissions limitation or standard. Examples of averaging time include a 3-hour average in units of the emissions limitation, a 30-day rolling average emissions value, a daily average of a control device operational parametric range, and an instantaneous alarm.

New affected source means the collection of equipment, activities, or both within a single contiguous area and under common control that is included in a section 112(c) source category or subcategory that is subject to a section 112(d) or other relevant standard for new sources. This definition of "new affected source," and the criteria to be utilized in implementing it, shall apply to each section 112(d) standard for which the initial proposed rule is signed by the Administrator after June 30, 2002. Each relevant standard will define the term "new affected source," which will

be the same as the "affected source" unless a different collection is warranted based on consideration of factors including:

(1) Emission reduction impacts of controlling individual sources versus groups of sources;

(2) Cost effectiveness of controlling individual equipment;

(3) Flexibility to accommodate common control strategies;

(4) Cost/benefits of emissions averaging;

(5) Incentives for pollution prevention;

(6) Feasibility and cost of controlling processes that share common equipment (e.g., product recovery devices);

(7) Feasibility and cost of monitoring; and

(8) Other relevant factors.

New source means any affected source the construction or reconstruction of which is commenced after the Administrator first proposes a relevant emission standard under this part establishing an emission standard applicable to such source.

Opacity means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background. For continuous opacity monitoring systems, opacity means the fraction of incident light that is attenuated by an optical medium.

Owner or operator means any person who owns, leases, operates, controls, or supervises a stationary source..

Performance audit means a procedure to analyze blind samples, the content of which is known by the Administrator, simultaneously with the analysis of performance test samples in order to provide a measure of test data quality.

Performance evaluation means the conduct of relative accuracy testing, calibration error testing, and other measurements used in validating the continuous monitoring system data.

Performance test means the collection of data resulting from the execution of a test method (usually three emission test runs) used to demonstrate compliance with a relevant emission standard as specified in the performance test section of the relevant standard.

Permit modification means a change to a title V permit as defined in regulations codified in this chapter to implement title V of the Act (42 U.S.C. 7661).

Permit program means a comprehensive State operating permit system established pursuant to title V of the Act (42 U.S.C. 7661) and regulations codified in part 70 of this chapter and applicable State regulations, or a comprehensive Federal operating permit system established pursuant to title V of the Act and regulations codified in this chapter.

Permit revision means any permit modification or administrative permit amendment to a title V permit as defined in regulations codified in this chapter to implement title V of the Act (42 U.S.C. 7661).

Permitting authority means:

(1) The State air pollution control agency, local agency, other State agency, or other agency authorized by the Administrator to carry out a permit program under part 70 of this chapter; or

(2) The Administrator, in the case of EPA-implemented permit programs under title V of the Act (42 U.S.C. 7661).

Potential to emit means the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the stationary source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is federally enforceable.

Reconstruction means the replacement of components of an affected or a previously unaffected stationary source to such an extent that:

(1) The fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable new source; and

(2) It is technologically and economically feasible for the reconstructed source to meet the relevant standard(s) established by the Administrator (or a State) pursuant to section 112 of the Act. Upon reconstruction, an affected source, or a stationary source that becomes an affected source, is subject to relevant standards for new sources, including compliance dates, irrespective of any change in emissions of hazardous air pollutants from that source.

Regulation promulgation schedule means the schedule for the promulgation of emission standards under this part, established by the Administrator pursuant to section 112(e) of the Act and published in the FEDERAL REGISTER.

Relevant standard means:

(1) An emission standard;

(2) An alternative emission standard;

(3) An alternative emission limitation; or

(4) An equivalent emission limitation established pursuant to section 112 of the Act that applies to the collection of equipment, activities, or both regulated by such standard or limitation. A relevant standard may include or consist of a design, equipment, work practice, or operational requirement, or other measure, process, method, system, or technique (including prohibition of emissions) that the Administrator (or a State) establishes for new or existing sources to which such standard or limitation applies. Every relevant standard established pursuant to section 112 of the Act includes subpart A of this part, as provided by § 63.1(a)(4), and all applicable appendices of this part or of other parts of this chapter that are referenced in that standard.

Responsible official means one of the following:

(1) For a corporation: A president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities and either:

(i) The facilities employ more than 250 persons or have gross annual sales or expenditures exceeding $25 million (in second quarter 1980 dollars); or

(ii) The delegation of authority to such representative is approved in advance by the Administrator.

(2) For a partnership or sole proprietorship: a general partner or the proprietor, respectively.

(3) For a municipality, State, Federal, or other public agency: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of the EPA).

(4) For affected sources (as defined in this part) applying for or subject to a title V permit: ''responsible official'' shall have the same meaning as defined in part 70 or Federal title V regulations in this chapter (42 U.S.C. 7661), whichever is applicable.

Run means one of a series of emission or other measurements needed to determine emissions for a representative operating period or cycle as specified in this part.

Shutdown means the cessation of operation of an affected source or portion of an affected source for any purpose.

Six-minute period means, with respect to opacity determinations, any one of the 10 equal parts of a 1-hour period.

Standard conditions means a temperature of 293 °K (68° F) and a pressure of 101.3 kilopascals (29.92 in. Hg).

Startup means the setting in operation of an affected source for any purpose.

State means all non-Federal authorities, including local agencies, interstate associations, and State-wide programs, that have delegated authority to implement:

(1) The provisions of this part and/or

(2) the permit program established under part 70 of this chapter. The term State shall have its conventional meaning where clear from the context.

Stationary source means any building, structure, facility, or installation which emits or may emit any air pollutant.

Test method means the validated procedure for sampling, preparing, and analyzing for an air pollutant specified in a relevant standard as the performance test procedure. The test method may include methods described in an appendix of this chapter, test methods incorporated by reference in this part, or methods validated for an application through procedures in Method 301 of appendix A of this part.

Title V permit means any permit issued, renewed, or revised pursuant to Federal or State regulations established to implement title V of the Act (42 U.S.C. 7661). A title V permit issued by a State permitting authority is called a part 70 permit in this part.

Visible emission means the observation of an emission of opacity or optical density above the threshold of vision.

Working day means any day on which Federal Government offices (or State government offices for a State that has obtained delegation under section 112(l)) are open for normal business. Saturdays, Sundays, and official Federal (or where delegated, State) holidays are not working days.

§ 63.3 Units and abbreviations.

[Reserved]

§ 63.4 Prohibited activities and circumvention.

Affected Sources are already subject to the provisions of paragraphs (b) through the same provisions under 40 CFR, part 60 subpart A.

(a) *Prohibited activities.*

(1) No owner or operator subject to the provisions of this part must operate any affected source in violation of the requirements of this part. Affected sources subject to and in compliance with either an extension of compliance or an exemption from compliance are not in violation of the requirements of this part. An extension of compliance can be granted by the Administrator under this part; by a State with an approved permit program; or by the President under section 112(i)(4) of the Act.

(2) No owner or operator subject to the provisions of this part shall fail to keep records, notify, report, or revise reports as required under this part.

(3) [Reserved]

(4) [Reserved]

(5) [Reserved]

(b) *Circumvention.* No owner or operator subject to the provisions of this part shall build, erect,

install, or use any article, machine, equipment, or process to conceal an emission that would otherwise constitute noncompliance with a relevant standard. Such concealment includes, but is not limited to

(1) The use of diluents to achieve compliance with a relevant standard based on the concentration of a pollutant in the effluent discharged to the atmosphere;

(2) The use of gaseous diluents to achieve compliance with a relevant standard for visible emissions; and

(3) [Reserved]

(c) *Severability.* Notwithstanding any requirement incorporated into a title V permit obtained by an owner or operator subject to the provisions of this part, the provisions of this part are federally enforceable.

§ 63.5 Preconstruction review and notification requirements.

(a) *Applicability.*

[Reserved]

(b) *Requirements for existing, newly constructed, and reconstructed sources.*

(1) A new affected source for which construction commences after proposal of a relevant standard is subject to relevant standards for new affected sources, including compliance dates. An affected source for which reconstruction commences after proposal of a relevant standard is subject to relevant standards for new sources, including compliance dates, irrespective of any change in emissions of hazardous air pollutants from that source.

(2) [Reserved]

(3) After the effective date of any relevant standard promulgated by the Administrator under this part, no person may, without obtaining written approval in advance from the Administrator in accordance with the procedures specified in paragraphs (d) and (e) of this section, do any of the following:

(i) Construct a new affected source that is major-emitting and subject to such standard;

(ii) Reconstruct an affected source that is major-emitting and subject to such standard; or

(iii) Reconstruct a major source such that the source becomes an affected source that is major-emitting and subject to the standard.

(4) After the effective date of any relevant standard promulgated by the Administrator under this part, an owner or operator who constructs a new affected source that is not major-emitting or reconstructs an affected source that is not major-emitting that is subject to such standard, or reconstructs a source such that the source becomes an affected source subject to the standard, must notify the Administrator of the intended construction or reconstruction. The notification must be submitted in accordance with the procedures in § 63.9(b).

(5) [Reserved]

(6) After the effective date of any relevant standard promulgated by the Administrator under this part, equipment added (or a process change) to an affected source that is within the scope of the definition of affected source under the relevant standard must be considered part of the affected source and subject to all provisions of the relevant standard established for that affected source.

(c)-(f) [Reserved]

§ 63.6 Compliance with standards and maintenance requirements.

(a)-(d) [Reserved]

(e) *Operation and maintenance requirements.*

(1) (i) At all times, including periods of startup, shutdown, and malfunction, the owner or operator must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions to the levels required by the relevant standards, i.e., meet the emission standard or comply with the startup, shutdown, and malfunction plan. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures (including the startup, shutdown, and malfunction plan required in paragraph (e)(3) of this section), review of operation and maintenance records, and inspection of the source.

(i) Malfunctions must be corrected as soon as practicable after their occurrence in accordance with the startup, shutdown, and malfunction plan required in paragraph (e)(3) of this section. To the extent that an unexpected event arises during a startup, shutdown, or malfunction, an owner or operator must comply by minimizing emissions during such a startup, shutdown, and malfunction event consistent with safety and good air pollution control practices.

(iii) Operation and maintenance requirements established pursuant to section 112 of the Act are enforceable independent of emissions limitations or other requirements in relevant standards.

(2) [Reserved]

(3) *Startup, shutdown, and malfunction plan.*

(i) The owner or operator of an affected source must develop and implement a written startup, shutdown, and malfunction plan that describes, in detail, procedures for operating and maintaining the source during periods of startup, shutdown, and malfunction; a program of corrective action for malfunctioning process; and air pollution control and monitoring equipment used to comply with the relevant standard. This plan must be developed by the owner or operator by the source's compliance date for that relevant standard. The purpose of the startup, shutdown, and malfunction plan is to --

(A) Ensure that, at all times, the owner or operator operate and maintain affected sources, including associated air pollution control and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions to the levels required by the relevant standards;

(B) Ensure that owners or operators are prepared to correct malfunctions as soon as practicable after their occurrence in order to minimize excess emissions of hazardous air pollutants; and

(C) Reduce the reporting burden associated with periods of startup, shutdown, and malfunction (including corrective action taken to restore malfunctioning process and air pollution control equipment to its normal or usual manner of operation).

(ii) During periods of startup, shutdown, and malfunction, the owner or operator of an affected source must operate and maintain such source (including associated air pollution control and monitoring equipment) in accordance with the procedures specified in the startup, shutdown, and malfunction plan developed under paragraph (e)(3)(i) of this section.

(iii) When actions taken by the owner or operator during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) are consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, the owner or operator must keep records for that event which demonstrate that the procedures specified in the plan were followed. These records may take the form of a "checklist," or other effective form of recordkeeping that confirms conformance with the startup, shutdown, and malfunction plan for that event. In addition, the owner or operator must keep records of these events as specified in § 63.10(b), including records of the occurrence and duration of each startup, shutdown, or malfunction of operation and each malfunction of the air pollution control and monitoring equipment. Furthermore, the owner or operator shall confirm that actions taken during the relevant reporting period during periods of startup, shutdown, and malfunction were consistent with the affected source's startup, shutdown and malfunction plan in the semiannual (or more frequent) startup, shutdown, and malfunction report required in § 63.10(d)(5).

(iv) If an action taken by the owner or operator during a startup, shutdown, or malfunction (including an action taken to correct a malfunction) is not consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, and the source exceeds the relevant emission standard, then the owner or operator must record the actions taken for that event and must report such actions within 2 working days after commencing actions inconsistent with the plan, followed by a letter within 7 working days after the end of the event, in accordance with § 63.10(d)(5) (unless the owner or operator makes alternative reporting arrangements, in advance, with the Administrator).

(v) The owner or operator must maintain at the affected source a current startup, shutdown, and malfunction plan and must make the plan available upon request for inspection and copying by the Administrator. In addition, if the startup, shutdown, and malfunction plan is subsequently revised as provided in paragraph (e)(3)(viii) of this section, the owner or operator must maintain at the affected source each previous (i.e., superseded) version of the startup, shutdown, and malfunction plan, and must make each such previous version available for inspection and copying by the Administrator for a period of 5 years after revision of the plan. If at any time after adoption of a startup, shutdown, and malfunction plan the affected source ceases operation or is otherwise no longer subject to the provisions of this part, the owner or operator must retain a copy of the most recent plan for 5 years from the date the source ceases operation or is no longer subject to this part and must make the plan available upon request for inspection and copying by the Administrator.

(vi) To satisfy the requirements of this section to develop a startup, shutdown, and malfunction plan, the owner or operator may use the affected source's standard operating procedures (SOP) manual, or an Occupational Safety and Health Administration (OSHA) or other plan, provided the alternative plans meet all the requirements of this section and are made available for inspection when requested by the Administrator.

(vii) Based on the results of a determination made under paragraph (e)(2) of this section, the Administrator may require that an owner or operator of an affected source make changes to the startup, shutdown, and malfunction plan for that source. The Administrator may require reasonable revisions to a startup, shutdown, and malfunction plan, if the Administrator finds that the plan:

(A) Does not address a startup, shutdown, or malfunction event that has occurred;

(B) Fails to provide for the operation of the source (including associated air pollution control and monitoring equipment) during a startup, shutdown, or malfunction event in a manner consistent with safety and good air pollution control practices for minimizing emissions to the levels required by the relevant standards;

(C) Does not provide adequate procedures for correcting malfunctioning process and/or air pollution control and monitoring equipment as quickly as practicable; or

(D) Includes an event that does not meet the definition of startup, shutdown, or malfunction listed in § 63.2.

(viii) The owner or operator may periodically revise the startup, shutdown, and malfunction plan for the affected source as necessary to satisfy the requirements of this part or to reflect changes in equipment or procedures at the affected source. Unless the permitting authority provides otherwise, the owner or operator may make such revisions to the startup, shutdown, and malfunction plan without prior approval by the Administrator or the permitting authority. However, each such revision to a startup, shutdown, and malfunction plan must be reported in the semiannual report required by § 63.10(d)(5). If the startup, shutdown, and malfunction plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction but was not included in the startup, shutdown, and malfunction plan at the time the owner or operator developed the plan, the owner or operator must revise the startup, shutdown, and malfunction plan within 45 days after the event to include detailed procedures for operating and maintaining the source during similar malfunction events and a program of corrective action for similar malfunctions of process or air pollution control and monitoring equipment. In the event that the owner or operator makes any revision to the startup, shutdown, and malfunction plan which alters the scope of the activities at the source which are deemed to be a startup, shutdown, malfunction, or otherwise modifies the applicability of any emission limit, work practice requirement, or other requirement in a standard established under this part, the revised plan shall not take effect until after the owner or operator has provided a written notice describing the revision to the permitting authority.

(ix) The title V permit for an affected source must require that the owner or operator adopt a startup, shutdown, and malfunction plan which conforms to the provisions of this part, and that the owner or operator operate and maintain the source in accordance with the procedures specified in the current startup, shutdown, and malfunction plan. However, any revisions made to the startup, shutdown, and malfunction plan in accordance with the procedures established by this part shall not be deemed to constitute permit revisions under part 70 or part 71 of this chapter. Moreover, none of the procedures specified by the startup, shutdown, and malfunction plan for an affected source shall be deemed to fall within the permit shield provision in section 504(f) of the Act.

(f) *Compliance with nonopacity emission standards* - **Affected Sources are already subject to the provisions of paragraphs (f)(1) and (2)(1) through the same provisions under 40 CFR, part 60 subpart A.**

(1) *Applicability.* The non-opacity emission standards set forth in this part shall apply at all times except during periods of startup, shutdown, and malfunction, and as otherwise specified in an applicable subpart. If a startup, shutdown, or malfunction of one portion of an affected source does not affect the ability of particular emission points within other portions of the affected source to comply with the non-opacity emission standards set forth in this part, then that emission point must still be required to comply with the non-opacity emission standards and other applicable requirements.

(2) *Methods for determining compliance.*

(i) The Administrator will determine compliance with nonopacity emission standards in this part based on the results of performance tests conducted according to the procedures in § 63.7, unless otherwise specified in an applicable subpart of this part.

(ii) The Administrator will determine compliance with nonopacity emission standards in this part by evaluation of an owner or operator's conformance with operation and

maintenance requirements, including the evaluation of monitoring data, as specified in § 63.6(e) and applicable subparts of this part.

(iii) If an affected source conducts performance testing at startup to obtain an operating permit in the State in which the source is located, the results of such testing may be used to demonstrate compliance with a relevant standard if -

(A) The performance test was conducted within a reasonable amount of time before an initial performance test is required to be conducted under the relevant standard;

(B) The performance test was conducted under representative operating conditions for the source;

(C) The performance test was conducted and the resulting data were reduced using EPA-approved test methods and procedures, as specified in § 63.7(e) of this subpart; and

(D) The performance test was appropriately quality-assured, as specified in § 63.7(c).

(iv) The Administrator will determine compliance with design, equipment, work practice, or operational emission standards in this part by review of records, inspection of the source, and other procedures specified in applicable subparts of this part.

(v) The Administrator will determine compliance with design, equipment, work practice, or operational emission standards in this part by evaluation of an owner or operator's conformance with operation and maintenance requirements, as specified in paragraph (e) of this section and applicable subparts of this part.

(3) *Finding of compliance.* The Administrator will make a finding concerning an affected source's compliance with a non-opacity emission standard, as specified in paragraphs (f)(1) and (2) of this section, upon obtaining all the compliance information required by the relevant standard (including the written reports of performance test results, monitoring results, and other information, if applicable), and information available to the Administrator pursuant to paragraph (e)(1)(i) of this section.

(g) *Use of an alternative nonopacity emission standard.*
[Reserved]

(h) *Compliance with opacity and visible emission standards -*
[Reserved]

(i) *Extension of compliance with emission standards.*
[Reserved]

(j) *Exemption from compliance with emission standards.* [Reserved]

§ 63.7 Performance testing requirements.
[Reserved]

§ 63.8 Monitoring requirements.
[Reserved]

§ 63.9 Notification requirements.
[Reserved]

§ 63.10 Recordkeeping and reporting requirements.

(a) *Applicability and general information.*
[Reserved]

(b) *General recordkeeping requirements.*
[Reserved]

(2) The owner or operator of an affected source subject to the provisions of this part shall maintain relevant records for such source of -

(i) The occurrence and duration of each startup, shutdown, or malfunction of operation (i.e., process equipment);

(ii) The occurrence and duration of each malfunction of the required air pollution control and monitoring equipment;

(iii) All required maintenance performed on the air pollution control and monitoring equipment;

(iv) Actions taken during periods of startup, shutdown, and malfunction (including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation) when such actions are different from the procedures specified in the affected source's startup, shutdown, and malfunction plan (see § 63.6(e)(3));

(v) All information necessary to demonstrate conformance with the affected source's startup, shutdown, and malfunction plan (see § 63.6(e)(3)) when all actions taken during periods of startup, shutdown, and malfunction (including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation) are consistent with the procedures specified in such plan. (The information needed to demonstrate conformance with the startup, shutdown, and malfunction plan may be recorded using a "checklist," or some other effective form of recordkeeping, in order to minimize the recordkeeping burden for conforming events);

(vi)-(xiv) [Reserved]

(3) *Recordkeeping requirement for applicability determinations.*
[Reserved]

(c) *Additional recordkeeping requirements for sources with continuous monitoring systems.*
[Reserved]

(d) *General reporting requirements.*
(1)-(4) [Reserved]

(5) (i) Periodic startup, shutdown, and malfunction reports. If actions taken by an owner or operator during a startup, shutdown, or malfunction of an affected source (including actions taken to correct a malfunction) are consistent with the procedures specified in the source's startup, shutdown, and malfunction plan [see § 63.6(e)(3)], the owner or operator shall state such information in a startup, shutdown, and malfunction report. Reports shall only be required if a startup, shutdown, or malfunction occurred during the reporting period. The startup, shutdown, and malfunction report shall consist of a letter, containing the name, title, and signature of the owner or operator or other responsible official who is certifying its accuracy, that shall be submitted to the Administrator semi-annually (or on a more frequent basis if specified otherwise in a relevant standard or as established otherwise by the permitting authority in the source's title V permit). The startup, shutdown, and malfunction report shall be delivered or postmarked by the 30th day following the end of each calendar half (or other calendar reporting

period, as appropriate). If the owner or operator is required to submit excess emissions and continuous monitoring system performance (or other periodic) reports under this part, the startup, shutdown, and malfunction reports required under this paragraph may be submitted simultaneously with the excess emissions and continuous monitoring system performance (or other) reports. If startup, shutdown, and malfunction reports are submitted with excess emissions and continuous monitoring system performance (or other periodic) reports, and the owner or operator receives approval to reduce the frequency of reporting for the latter under paragraph (e) of this section, the frequency of reporting for the startup, shutdown, and malfunction reports also may be reduced if the Administrator does not object to the intended change. The procedures to implement the allowance in the preceding sentence shall be the same as the procedures specified in paragraph (e)(3) of this section.

(ii) Immediate startup, shutdown, and malfunction reports. Notwithstanding the allowance to reduce the frequency of reporting for periodic startup, shutdown, and malfunction reports under paragraph (d)(5)(i) of this section, any time an action taken by an owner or operator during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) is not consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, the owner or operator shall report the actions taken for that event within 2 working days after commencing actions inconsistent with the plan followed by a letter within 7 working days after the end of the event. The immediate report required under this paragraph shall consist of a telephone call (or facsimile (FAX) transmission) to the Administrator within 2 working days after commencing actions inconsistent with the plan, and it shall be followed by a letter, delivered or postmarked within 7 working days after the end of the event, that contains the name, title, and signature of the owner or operator or other responsible official who is certifying its accuracy, explaining the circumstances of the event, the reasons for not following the startup, shutdown, and malfunction plan, and whether any excess emissions and/or parameter monitoring exceedances are believed to have occurred. Notwithstanding the requirements of the previous sentence, after the effective date of an approved permit program in the State in which an affected source is located, the owner or operator may make alternative reporting arrangements, in advance, with the permitting authority in that State. Procedures governing the arrangement of alternative reporting requirements under this paragraph are specified in § 63.9(i).

(e) –(f) [Reserved]

§ 63.11 Control device requirements.

[Reserved]

§ 63.12 State authority and delegations.

(a) The provisions of this part shall not be construed in any manner to preclude any State or political subdivision thereof from -

(1) Adopting and enforcing any standard, limitation, prohibition, or other regulation applicable to an affected source subject to the requirements of this part, provided that such standard, limitation, prohibition, or regulation is not less stringent than any requirement applicable to such source established under this part;

(2) Requiring the owner or operator of an affected source to obtain permits, licenses, or approvals prior to initiating construction, reconstruction, modification, or operation of such source; or

(3) Requiring emission reductions in excess of those specified in subpart D of this part as a condition for granting the extension of compliance authorized by section 112(i)(5) of the Act.

(b)-(c) [Reserved]

§ 63.13 Addresses of State air pollution control agencies and EPA Regional Offices.

[Reserved]

§ 63.14 Incorporations by reference.

[Reserved]

§ 63.15 Availability of information and confidentiality.

(a) *Availability of information.*

(1) With the exception of information protected through part 2 of this chapter, all reports, records, and other information collected by the Administrator under this part are available to the public. In addition, a copy of each permit application, compliance plan (including the schedule of compliance), notification of compliance status, excess emissions and continuous monitoring systems performance report, and title V permit is available to the public, consistent with protections recognized in section 503(e) of the Act.

(2) The availability to the public of information provided to or otherwise obtained by the Administrator under this part shall be governed by part 2 of this chapter.

(b) *Confidentiality.*

(1) If an owner or operator is required to submit information entitled to protection from disclosure under section 114(c) of the Act, the owner or operator may submit such information separately. The requirements of section 114(c) shall apply to such information.

(2) The contents of a title V permit shall not be entitled to protection under section 114(c) of the Act; however, information submitted as part of an application for a title V permit may be entitled to protection from disclosure.

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Subpart WWW--Standards of Performance for Municipal Solid Waste Landfills

Sec.

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Subpart WWW--Standards of Performance for Municipal Solid Waste Landfills

§ 60.750 Applicability, designation of affected facility, and delegation of authority.

(a) The provisions of this subpart apply to each municipal solid waste landfill that commenced construction, reconstruction or modification on or after May 30, 1991. Physical or operational changes made to an existing MSW landfill solely to comply with Subpart Cc of this part are not considered construction, reconstruction, or modification for the purposes of this section.

(b) The following authorities shall be retained by the Administrator and not transferred to the State: § 60.754(a)(5).

(c) Activities required by or conducted pursuant to a CERCLA, RCRA, or State remedial action are not considered construction, reconstruction, or modification for purposes of this subpart.

§ 60.751 Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Act or in subpart A of this part.

Active collection system means a gas collection system that uses gas mover equipment.

Active landfill means a landfill in which solid waste is being placed or a landfill that is planned to accept waste in the future.

Closed landfill means a landfill in which solid waste is no longer being placed, and in which no additional solid wastes will be placed without first filing a notification of modification as prescribed under § 60.7(a)(4). Once a notification of modification has been filed, and additional solid waste is placed in the landfill, the landfill is no longer closed. A landfill is considered closed after meeting the criteria of § 258.60 of this title.

Closure means that point in time when a landfill becomes a closed landfill.

Commercial solid waste means all types of solid waste generated by stores, offices, restaurants, warehouses, and other nonmanufacturing activities, excluding residential and industrial wastes.

Controlled landfill means any landfill at which collection and control systems are required under this subpart as a result of the nonmethane organic compounds emission rate. The landfill is considered controlled at the time a collection and control system design plan is submitted in compliance with § 60.752(b)(2)(i).

Design capacity means the maximum amount of solid waste a landfill can accept, as indicated in terms of volume or mass in the most recent permit issued by the State, local, or Tribal agency responsible for regulating the landfill, plus any in-place waste not accounted for in the most recent permit. If the owner or operator chooses to convert the design capacity from volume to mass or from mass to volume to demonstrate its design capacity is less than 2.5 million megagrams or 2.5 million cubic meters, the calculation must include a site specific density, which must be recalculated annually.

Disposal facility means all contiguous land and structures, other appurtenances, and improvements on the land used for the disposal of solid waste.

Emission rate cutoff means the threshold annual emission rate to which a landfill compares its estimated emission rate to determine if control under the regulation is required.

Enclosed combustor means an enclosed firebox which maintains a relatively constant limited peak temperature generally using a limited supply of combustion air. An enclosed flare is considered an enclosed combustor.

Flare means an open combustor without enclosure or shroud.

Gas mover equipment means the equipment (i.e., fan, blower, compressor) used to transport landfill gas through the header system.

Household waste means any solid waste (including garbage, trash, and sanitary waste in septic tanks) derived from households (including, but not limited to, single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds, and day-use recreation areas).

Industrial solid waste means solid waste generated by manufacturing or industrial processes that is not a hazardous waste regulated under Subtitle C of the Resource Conservation and Recovery Act, parts 264 and 265 of this title. Such waste may include, but is not limited to, waste resulting from the following manufacturing processes: electric power generation; fertilizer/agricultural chemicals; food and related products/by-products; inorganic chemicals; iron and steel manufacturing; leather and leather products; nonferrous metals manufacturing/foundries; organic chemicals; plastics and resin manufacturing; pulp and paper industry; rubber and miscellaneous plastic products; stone, glass, clay, and concrete products; textile manufacturing; transportation equipment; and water treatment. This term does not include mining waste or oil and gas waste.

Interior well means any well or similar collection component located inside the perimeter of the landfill waste. A perimeter well located outside the landfilled waste is not an interior well.

Landfill means an area of land or an excavation in which wastes are placed for permanent disposal, and that is not a land application unit, surface impoundment, injection well, or waste pile as those terms are defined under § 257.2 of this title.

Lateral expansion means a horizontal expansion of the waste boundaries of an existing MSW landfill. A lateral expansion is not a modification unless it results in an increase in the design capacity of the landfill.

Modification means an increase in the permitted volume design capacity of the landfill by either horizontal or vertical expansion based on its permitted design capacity as of May 30, 1991. Modification does not occur until the owner or operator commences construction or the horizontal or vertical expansion.

Municipal solid waste landfill or MSW landfill means an entire disposal facility in a contiguous geographical space where household waste is placed in or on land. An MSW landfill may also receive other types of RCRA Subtitle D wastes (§ 257.2 of this title) such as commercial solid waste, nonhazardous sludge, conditionally exempt small quantity generator waste, and industrial solid waste. Portions of an MSW landfill may be separated by access roads. An MSW landfill may be publicly or privately owned. An MSW landfill may be a new MSW landfill, an existing MSW landfill, or a lateral expansion.

Municipal solid waste landfill emissions or MSW landfill emissions means gas generated by the decomposition of organic waste deposited in an MSW landfill or derived from the evolution of organic compounds in the waste.

NMOC means nonmethane organic compounds, as measured according to the provisions of § 60.754.

Nondegradable waste means any waste that does not decompose through chemical breakdown or microbiological activity. Examples are, but are not limited to, concrete, municipal waste combustor ash, and metals.

Passive collection system means a gas collection system that solely uses positive pressure within the landfill to move the gas rather than using gas mover equipment.

Sludge means any solid, semisolid, or liquid waste generated from a municipal, commercial, or industrial wastewater treatment plant, water supply treatment plant, or air pollution control facility, exclusive of the treated effluent from a wastewater treatment plant.

Solid waste means any garbage, sludge from a wastewater treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations, and from community activities, but does not include solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges that are point sources subject to permits under 33 U.S.C. 1342, or source, special nuclear, or by-product material as defined by the Atomic Energy Act of 1954, as amended (42 U.S.C 2011 et seq.).

Sufficient density means any number, spacing, and combination of collection system components, including vertical wells, horizontal collectors, and surface collectors, necessary to maintain emission and migration control as determined by measures of performance set forth in this part.

Sufficient extraction rate means a rate sufficient to maintain a negative pressure at all wellheads in the collection system without causing air infiltration, including any wellheads connected to the system as a result of expansion or excess surface emissions, for the
life of the blower.

§ 60.752 Standards for air emissions from municipal solid waste landfills.

(a) Each owner or operator of an MSW landfill having a design capacity less than 2.5 million megagrams by mass or 2.5 million cubic meters by volume shall submit an initial design capacity report to the Administrator as provided in § 60.757(a). The landfill may calculate design capacity in either megagrams or cubic meters for comparison with the exemption values. Any density conversions shall be documented and submitted with the report. Submittal of the initial design capacity report shall fulfill the requirements of this subpart except as provided for in paragraphs (a)(1) and (a)(2) of this section.

(1) The owner or operator shall submit to the Administrator an amended design capacity report, as provided for in § 60.757(a)(3).

(2) When an increase in the maximum design capacity of a landfill exempted from the provisions of § 60.752(b) through § 60.759 of this subpart on the basis of the design capacity exemption in paragraph (a) of this section results in a revised maximum design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters, the owner or operator shall comply with the provision of paragraph (b) of this section.

(b) Each owner or operator of an MSW landfill having a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters, shall either comply with paragraph (b)(2) of this section or calculate an NMOC emission rate for the landfill using the procedures specified in § 60.754. The NMOC emission rate shall be recalculated annually, except as provided in § 60.757(b)(1)(ii) of this subpart. The owner or operator of an MSW landfill subject to this subpart with a design capacity greater than or equal to 2.5 million megagrams and 2.5 million cubic meters is subject to part 70 or 71 permitting requirements.

(1) If the calculated NMOC emission rate is less than 50 megagrams per year, the owner or operator shall:

(i) Submit an annual emission report to the Administrator, except as provided for in § 60.757(b)(1)(ii); and

(ii) Recalculate the NMOC emission rate annually using the procedures specified in § 60.754(a)(1) until such time as the calculated NMOC emission rate is equal to or greater than 50 megagrams per year, or the landfill is closed.

(A) If the NMOC emission rate, upon recalculation required in paragraph (b)(1)(ii) of this section, is equal to or greater than 50 megagrams per year, the owner or operator shall install a collection and control system in compliance with paragraph (b)(2) of this section.

(B) If the landfill is permanently closed, a closure notification shall be submitted to the Administrator as provided for in § 60.757(d).

(2) If the calculated NMOC emission rate is equal to or greater than 50 megagrams per year, the owner or operator shall:

(i) Submit a collection and control system design plan prepared by a professional engineer to the Administrator within 1 year:

(A) The collection and control system as described in the plan shall meet the design requirements of paragraph (b)(2)(ii) of this section.

(B) The collection and control system design plan shall include any alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping or reporting provisions of §§ 60.753 through 60.758 proposed by the owner or operator.

(C) The collection and control system design plan shall either conform with specifications for active collection systems in § 60.759 or include a demonstration to the Administrator's satisfaction of the sufficiency of the alternative provisions to § 60.759.

(D) The Administrator shall review the information submitted under paragraphs (b)(2)(i) (A),(B) and (C) of this section and either approve it, disapprove it, or request that additional information be submitted. Because of the many site-specific factors involved with landfill gas system design, alternative systems may be necessary. A wide variety of system designs are possible, such as vertical wells, combination horizontal and vertical collection systems, or horizontal trenches only, leachate collection components, and passive systems.

(ii) Install a collection and control system that captures the gas generated within the landfill as required by paragraphs (b)(2)(ii)(A) or (B) and (b)(2)(iii) of this section within 30 months after the first annual report in which the emission rate equals or exceeds 50 megagrams per year, unless Tier 2 or Tier 3 sampling demonstrates that the emission rate is less than 50 megagrams per year, as specified in § 60.757(c)(1) or (2).

(A) An active collection system shall:

(1) Be designed to handle the maximum expected gas flow rate from the entire area of the landfill that warrants control over the intended use period of the gas control or treatment system equipment;

(2) Collect gas from each area, cell, or group of cells in the landfill in which the initial solid waste has been placed for a period of:

(i) 5 years or more if active; or

(ii) 2 years or more if closed or at final grade;

(3) Collect gas at a sufficient extraction rate;

(4) Be designed to minimize off-site migration of subsurface gas.

(B) A passive collection system shall:

(1) Comply with the provisions specified in paragraphs (b)(2)(ii)(A)(1), (2), and (2)(ii)(A)(4) of this section.

(2) Be installed with liners on the bottom and all sides in all areas in which gas is to be collected. The liners shall be installed as required under § 258.40 of this title.

(iii) Route all the collected gas to a control system that complies with the requirements in either paragraph (b)(2)(iii) (A), (B) or (C) of this section.

(A) An open flare designed and operated in accordance with § 60.18;

(B) A control system designed and operated to reduce NMOC by 98 weight-percent, or, when an enclosed combustion device is used for control, to either reduce NMOC by 98 weight percent or

reduce the outlet NMOC concentration to less than 20 parts per million by volume, dry basis as hexane at 3 percent oxygen. The reduction efficiency or parts per million by volume shall be established by an initial performance test to be completed no later than 180 days after the initial startup of the approved control system using the test methods specified in § 60.754(d).

(1) If a boiler or process heater is used as the control device, the landfill gas stream shall be introduced into the flame zone.

(2) The control device shall be operated within the parameter ranges established during the initial or most recent performance test. The operating parameters to be monitored are specified in § 60.756;

(C) Route the collected gas to a treatment system that processes the collected gas for subsequent sale or use. All emissions from any atmospheric vent from the gas treatment system shall be subject to the requirements of paragraph (b)(2)(iii) (A) or (B) of this section.

(iv) Operate the collection and control device installed to comply with this subpart in accordance with the provisions of § § 60.753, 60.755 and 60.756.

(v) The collection and control system may be capped or removed provided that all the conditions of paragraphs (b)(2)(v) (A), (B), and (C) of this section are met:

(A) The landfill shall be a closed landfill as defined in § 60.751 of this subpart. A closure report shall be submitted to the Administrator as provided in § 60.757(d);

(B) The collection and control system shall have been in operation a minimum of 15 years; and

(C) Following the procedures specified in § 60.754(b) of this subpart, the calculated NMOC gas produced by the landfill shall be less than 50 megagrams per year on three successive test dates. The test dates shall be no less than 90 days apart, and no more than 180 days apart.

(c) For purposes of obtaining an operating permit under title V of the Act, the owner or operator of a MSW landfill subject to this subpart with a design capacity less than 2.5 million megagrams or 2.5 million cubic meters is not subject to the requirement to obtain an operating permit for the landfill under part 70 or 71 of this chapter, unless the landfill is otherwise subject to either part 70 or 71. For purposes of submitting a timely application for an operating permit under part 70 or 71, the owner or operator of a MSW landfill subject to this subpart with a design capacity greater than or equal to 2.5 million megagrams and 2.5 million cubic meters, and not otherwise subject to either part 70 or 71, becomes subject to the requirements of §§ 70.5(a)(1)(i) or 71.5(a)(1)(i) of this chapter, regardless of when the design capacity report is actually submitted, no later than:

(1) June 10, 1996 for MSW landfills that commenced construction, modification, or reconstruction on or after May 30, 1991 but before March 12, 1996;

(2) Ninety days after the date of commenced construction, modification, or reconstruction for MSW landfills that commence construction, modification, or reconstruction on or after March 12, 1996.

(d) When a MSW landfill subject to this subpart is closed, the owner or operator is no longer subject to the requirement to maintain an operating permit under part 70 or 71 of this chapter for the landfill if the landfill is not otherwise subject to the requirements of either part 70 or 71 and if either of the following conditions are met:

(1) The landfill was never subject to the requirement for a control system under paragraph (b)(2) of this section; or

(2) The owner or operator meets the conditions for control system removal specified in paragraph (b)(2)(v) of this section.

§ 60.753 Operational standards for collection and control systems.

Each owner or operator of an MSW landfill with a gas collection and control system used to comply with the provisions of § 60.752(b)(2)(ii) of this subpart shall:

(a) Operate the collection system such that gas is collected from each area, cell, or group of cells in the MSW landfill in which solid waste has been in place for:

(1) 5 years or more if active; or

(2) 2 years or more if closed or at final grade;

(b) Operate the collection system with negative pressure at each wellhead except under the following conditions:

(1) A fire or increased well temperature. The owner or operator shall record instances when positive pressure occurs in efforts to avoid a fire. These records shall be submitted with the annual reports as provided in § 60.757(f)(1);

(2) Use of a geomembrane or synthetic cover. The owner or operator shall develop acceptable pressure limits in the design plan;

(3) A decommissioned well. A well may experience a static positive pressure after shut down to accommodate for declining flows. All design changes shall be approved by the Administrator;

(c) Operate each interior wellhead in the collection system with a landfill gas temperature less than 55° C and with either a nitrogen level less than 20 percent or an oxygen level less than 5 percent. The owner or operator may establish a higher operating temperature, nitrogen, or oxygen value at a particular well. A higher operating value demonstration shall show supporting data that the elevated parameter does not cause fires or significantly inhibit anaerobic decomposition by killing methanogens.

(1) The nitrogen level shall be determined using Method 3C, unless an alternative test method is established as allowed by § 60.752(b)(2)(i) of this subpart.

(2) Unless an alternative test method is established as allowed by § 60.752(b)(2)(i) of this subpart, the oxygen shall be determined by an oxygen meter using Method 3A or 3C except that:

(i) The span shall be set so that the regulatory limit is between 20 and 50 percent of the span;

(ii) A data recorder is not required;

(iii) Only two calibration gases are required, a zero and span, and ambient air may be used as the span;

(iv) A calibration error check is not required;

(v) The allowable sample bias, zero drift, and calibration drift are ±10 percent.

(d) Operate the collection system so that the methane concentration is less than 500 parts per million above background at the surface of the landfill. To determine if this level is exceeded, the owner or operator shall conduct surface testing around the perimeter of the collection area and along a pattern that traverses the landfill at 30 meter intervals and where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover. The owner or operator may establish an alternative traversing pattern that ensures equivalent coverage. A surface monitoring design plan shall be developed that includes a topographical map with the monitoring route and the rationale for any site-specific deviations from the 30 meter intervals. Areas with steep slopes or other dangerous areas may be excluded from the surface testing.

(e) Operate the system such that all collected gases are vented to a control system designed and operated in compliance with § 60.752(b)(2)(iii). In the event the collection or control system is inoperable, the gas mover system shall be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere shall be closed within 1 hour; and

(f) Operate the control or treatment system at all times when the collected gas is routed to the system.

(g) If monitoring demonstrates that the operational requirement in paragraphs (b), (c), or (d) of this section are not met, corrective action shall be taken as specified in § 60.755(a) (3) through (5) or § 60.755(c) of this subpart. If corrective actions are taken as specified in § 60.755, the monitored exceedance is not a violation

of the operational requirements in this section.

§ 60.754 Test methods and procedures.

(a) (1) The landfill owner or operator shall calculate the NMOC emission rate using either the equation provided in paragraph (a)(1)(i) of this section or the equation provided in paragraph (a)(1)(ii) of this section. Both equations may be used if the actual year-to-year solid waste acceptance rate is known, as specified in paragraph (a)(1)(i), for part of the life of the landfill and the actual year-to- year solid waste acceptance rate is unknown, as specified in paragraph (a)(1)(ii), for part of the life of the landfill. The values to be used in both equations are 0.05 per year for k, 170 cubic meters per megagram for L_o, and 4,000 parts per million by volume as hexane for the C_{NMOC}. For landfills located in geographical areas with a thirty year annual average precipitation of less than 25 inches, as measured at the nearest representative official meteorologic site, the k value to be used is 0.02 per year.

(i) The following equation shall be used if the actual year-to-year solid waste acceptance rate is known.

$$M_{NMOC} = \sum_{i=1}^{n} 2kL_oM_i\left(e^{-kt}i\right)\left(C_{NMOC}\right)\left(3.6X10^{-9}\right)$$

where,

M_{NMOC} = Total NMOC emission rate from the landfill, megagrams per year
k = methane generation rate constant, $year^{-1}$
L_o = methane generation potential, cubic meters per megagram solid waste
Mi = mass of solid waste in the i^{th} section, megagrams
t_i = age of the i^{th} section, years
C_{NMOC} = concentration of NMOC, parts per million by volume as hexane
3.6 x 10^{-9} = conversion factor
The mass of nondegradable solid waste may be subtracted from the total mass of solid waste in a particular section of the landfill when calculating the value for M_i if documentation of the nature and amount of such wastes is maintained.

(ii) The following equation shall be used if the actual year-to- year solid waste acceptance rate is unknown.

$$M_{NMOC} = 2L_o R (e^{-kc} - e^{-kt}) (C_{NMOC}) (3.6 \times 10^{-9})$$

where,

M_{NMOC} = mass emission rate of NMOC, megagrams per year
L_o = methane generation potential, cubic meters per megagram solid waste
R = average annual acceptance rate, megagrams per year
k = methane generation rate constant, $year^{-1}$
t = age of landfill, years
C_{NMOC} = concentration of NMOC, parts per million by volume as hexane
c = time since closure, years. For active landfill c = O and e^{-kc}=1
3.6 x 10^{-9} = conversion factor

The mass of nondegradable solid waste may be subtracted from the total mass of solid waste in a particular section of the landfill when calculating a value for R, if documentation of the nature and amount of such wastes is maintained.

(2) Tier 1. The owner or operator shall compare the calculated NMOC mass emission rate to the standard of 50 megagrams per year.

(i) If the NMOC emission rate calculated in paragraph (a)(1) of this section is less than 50 megagrams per year, then the landfill owner shall submit an emission rate report as provided in § 60.757(b)(1), and shall recalculate the NMOC mass emission rate annually as required under § 60.752(b)(1).

(ii) If the calculated NMOC emission rate is equal to or greater than 50 megagrams per year, then the landfill owner shall either comply with § 60.752(b)(2), or determine a site-specific NMOC concentration and recalculate the NMOC emission rate using the procedures provided in paragraph (a)(3) of this section.

(3) Tier 2. The landfill owner or operator shall determine the NMOC concentration using the following sampling procedure. The landfill owner or operator shall install at least two sample probes per hectare of landfill surface that has retained waste for at least 2 years. If the landfill is larger than 25 hectares in area, only 50 samples are required. The sample probes should be located to avoid known areas of nondegradable solid waste. The owner or operator shall collect and analyze one sample of landfill gas from each probe to determine the NMOC concentration using Method 25 or 25C of Appendix A of this part. Method 18 of Appendix A of this part may be used to analyze the samples collected by the Method 25 or 25C sampling procedure. Taking composite samples from different probes into a single cylinder is allowed; however, equal sample volumes must be taken from each probe. For each composite, the sampling rate, collection times, beginning and ending cylinder vacuums, or alternative volume measurements must be recorded to verify that composite volumes are equal. Composite sample volumes should not be less than one liter unless evidence can be provided to substantiate the accuracy of smaller volumes. Terminate compositing before the cylinder approaches ambient pressure where measurement accuracy diminishes. If using Method 18, the owner or operator must identify all compounds in the sample and, as a minimum, test for those compounds published in the most recent Compilation of Air Pollutant Emission Factors (AP-42), minus carbon monoxide, hydrogen sulfide, and mercury. As a minimum, the instrument must be calibrated for each of the compounds on the list. Convert the concentration of each Method 18 compound to CNMOC as hexane by multiplying by the ratio of its carbon atoms divided by six. If more than the required number of samples are taken, all samples must be used in the analysis. The landfill owner or operator must divide the NMOC concentration from Method 25 or 25C of Appendix A of this part by six to convert from CNMOC as carbon to CNMOC as hexane. If the landfill has an active or passive gas removal system in place, Method 25 or 25C samples may be collected from these systems instead of surface probes provided the removal system can be shown to provide sampling as representative as the two sampling probe per hectare requirement. For active collection systems, samples may be collected from the common header pipe before the gas moving or condensate removal equipment. For these systems, a minimum of three samples must be collected from the header pipe.

(i) The landfill owner or operator shall recalculate the NMOC mass emission rate using the equations provided in paragraph (a)(1)(i) or (a)(1)(ii) of this section and using the average NMOC concentration from the collected samples instead of the default value in the equation provided in paragraph (a)(1) of this section.

(ii) If the resulting mass emission rate calculated using the site-specific NMOC concentration is equal to or greater than 50 megagrams per year, then the landfill owner or operator shall either comply with § 60.752(b)(2), or determine the site-specific methane generation rate constant and recalculate the NMOC emission rate using the site-specific methane generation rate using the procedure specified in paragraph (a)(4) of this section.

(iii) If the resulting NMOC mass emission rate is less than 50 megagrams per year, the owner or operator shall submit a periodic estimate of the emission rate report as provided in § 60.757(b)(1) and retest the site-specific NMOC concentration every 5 years using the methods specified in this section.

(4) Tier 3. The site-specific methane generation rate constant shall be determined using the procedures provided in Method 2E of appendix A of this part. The landfill owner or operator shall estimate the NMOC mass emission rate using equations in paragraph (a)(1)(i) or (a)(1)(ii) of this section and using a site-specific methane generation rate constant k, and the site-specific NMOC concentration as determined in paragraph (a)(3) of this section instead of the default values provided in paragraph (a)(1) of this section. The landfill owner or operator shall compare the resulting NMOC mass emission rate to the standard of 50 megagrams per year.

(i) If the NMOC mass emission rate as calculated using the site-specific methane generation rate and concentration of NMOC is equal to or greater than 50 megagrams per year, the owner or operator shall comply with § 60.752(b)(2).

(ii) If the NMOC mass emission rate is less than 50 megagrams per year, then the owner or operator shall submit a periodic emission rate report as provided in § 60.757(b)(1) and shall recalculate the NMOC mass emission rate annually, as provided in § 60.757(b)(1) using the equations in paragraph (a)(1) of this section and using the site-specific methane generation rate constant and NMOC concentration obtained in paragraph (a)(3) of this section. The calculation of the methane generation rate constant is performed only once, and the value obtained from this test shall be used in all subsequent annual NMOC emission rate calculations.

(5) The owner or operator may use other methods to determine the NMOC concentration or a site-specific k as an alternative to the methods required in paragraphs (a)(3) and (a)(4) of this section if the method has been approved by the Administrator.

(b) After the installation of a collection and control system in compliance with § 60.755, the owner or operator shall calculate the NMOC emission rate for purposes of determining when the system can be removed as provided in § 60.752(b)(2)(v), using the following equation:

$$M_{NMOC} = 1.89 \times 10^{-3} Q_{LFG} C_{NMOC}$$

where,
M_{NMOC} = mass emission rate of NMOC, megagrams per year
Q_{LFG} = flow rate of landfill gas, cubic meters per minute
C_{NMOC} = NMOC concentration, parts per million by volume as hexane

(1) The flow rate of landfill gas, QLFG, shall be determined by measuring the total landfill gas flow rate at the common header pipe that leads to the control device using a gas flow measuring device calibrated according to the provisions of section 4 of Method 2E of appendix A of this part.

(2) The average NMOC concentration, CNMOC, shall be determined by collecting and analyzing landfill gas sampled from the common header pipe before the gas moving or condensate removal equipment using the procedures in Method 25C or Method 18 of appendix A of this part. If using Method 18 of appendix A of this part, the minimum list of compounds to be tested shall be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42). The sample location on the common header pipe shall be before any condensate removal or other gas refining units. The landfill owner or operator shall divide the NMOC concentration from Method 25C of appendix A of this part by six to convert from C_{NMOC} as carbon to C_{NMOC} as hexane.

(3) The owner or operator may use another method to determine landfill gas flow rate and NMOC concentration if the method has been approved by the Administrator.

(c) When calculating emissions for PSD purposes, the owner or operator of each MSW landfill subject to the provisions of this subpart shall estimate the NMOC emission rate for comparison to the PSD major source and significance levels in §§ 51.166 or 52.21 of this chapter using AP-42 or other approved measurement procedures.

(d) For the performance test required in § 60.752(b)(2)(iii)(B), Method 25, 25C or Method 18 of appendix A of this part shall be used to determine compliance with 98 weight-percent efficiency or the 20 ppmv outlet concentration level, unless another method to demonstrate compliance has been approved by the Administrator as provided by § 60.752(b)(2)(i)(B). Method 3 or 3A shall be used to determine oxygen for correcting the NMOC concentration as hexane to 3 percent. In cases where the outlet concentration is less than 50 ppm NMOC as carbon (8ppm NMOC as Hexane), Method 25A should be used in place of Method 25. If using Method 18 of appendix A of this part, the minimum list of compounds to be tested shall be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42). The following equation shall be used to calculate efficiency:

Control Efficiency = $(NMOC_{in} - NMOC_{out})/(NMOC_{in})$

where,
$NMOC_{in}$ = mass of NMOC entering control device
$NMOC_{out}$ = mass of NMOC exiting control device

§ 60.755 Compliance provisions.

(a) Except as provided in § 60.752(b)(2)(i)(B), the specified methods in paragraphs (a)(1) through (a)(6) of this section shall be used to determine whether the gas collection system is in compliance with § 60.752(b)(2)(ii).

(1) For the purposes of calculating the maximum expected gas generation flow rate from the landfill to determine compliance with § 60.752(b)(2)(ii)(A)(1), one of the following equations shall be used. The k and L_o kinetic factors should be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42) or other site specific values demonstrated to be appropriate and approved by the Administrator. If k has been determined as specified in § 60.754(a)(4), the value of k determined from the test shall be used. A value of no more than 15 years shall be used for the intended use period of the gas mover equipment. The active life of the landfill is the age of the landfill plus the estimated number of years until closure.

(i) For sites with unknown year-to-year solid waste acceptance rate:

$Q_m = 2L_o R (e^{-kc} - e^{-kt})$

where,

Q_m = maximum expected gas generation flow rate, cubic meters per year
L_o = methane generation potential, cubic meters per megagram solid waste
R = average annual acceptance rate, megagrams per year
k = methane generation rate constant, $year^{-1}$
t = age of the landfill at equipment installation plus the time the owner or operator intends to use the gas mover equipment or active life of the landfill, whichever is less. If the equipment is installed after closure, t is the age of the landfill at installation, years
c = time since closure, years (for an active landfill c = O and $e^{-kc} = 1$)

(ii) For sites with known year-to-year solid waste acceptance rate:

$$Q_M = \sum_{i=1}^{n} 2kLoMi\left(e^{-kt}i\right)$$

where,

Q_M = maximum expected gas generation flow rate, cubic meters per year
k = methane generation rate constant, $year^{-1}$
L_o = methane generation potential, cubic meters per megagram solid waste
M_i = mass of solid waste in the i^{th} section, megagrams
t_i = age of the i^{th} section, years

(iii) If a collection and control system has been installed, actual flow data may be used to project the maximum expected gas generation flow rate instead of, or in conjunction with, the equations in paragraphs (a)(1) (i) and (ii) of this section. If the landfill is still accepting waste, the actual measured flow data will not equal the maximum expected gas generation rate, so calculations using the equations in paragraphs (a)(1) (i) or (ii) or other methods shall be used to predict the maximum expected gas generation rate over the intended period of use of the gas control system equipment.

(2) For the purposes of determining sufficient density of gas collectors for compliance with § 60.752(b)(2)(ii)(A)(2), the owner or operator shall design a system of vertical wells, horizontal collectors, or other collection devices, satisfactory to the Administrator, capable of controlling and extracting gas from all portions of the landfill sufficient to meet all operational and performance standards.

(3) For the purpose of demonstrating whether the gas collection system flow rate is sufficient to determine compliance with § 60.752(b)(2)(ii)(A)(3), the owner or operator shall measure gauge pressure in the gas collection header at each individual well, monthly. If a positive pressure exists, action shall be initiated to correct the exceedance within 5 calendar days, except for the three conditions allowed under § 60.753(b). If negative pressure cannot be achieved without excess air infiltration within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial measurement of positive pressure. Any attempted corrective measure shall not cause exceedances of other operational or performance standards. An alternative timeline for correcting the exceedence may be submitted to the Administrator for approval.

(4) Owners or operators are not required to expand the system as required in paragraph (a)(3) of this section during the first 180 days after gas collection system startup.

(5) For the purpose of identifying whether excess air infiltration into the landfill is occurring, the owner or operator shall monitor each well monthly for temperature and nitrogen or oxygen as provided in § 60.753(c). If a well exceeds one of these operating parameters, action shall be initiated to correct the exceedance within 5 calendar days. If correction of the exceedance cannot be achieved within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial exceedance. Any attempted corrective measure shall not cause exceedances of other operational or performance standards. An alternative timeline for correcting the exceedence may be submitted to the Administrator for approval.

(6) An owner or operator seeking to demonstrate compliance with § 60.752(b)(2)(ii)(A)(4) through the use of a collection system not conforming to the specifications provided in § 60.759 shall provide information satisfactory to the Administrator as specified in § 60.752(b)(2)(i)(C) demonstrating that off-site migration is being controlled.

(b) For purposes of compliance with § 60.753(a), each owner or operator of a controlled landfill shall place each well or design component as specified in the approved design plan as provided in § 60.752(b)(2)(i). Each well shall be installed no later than 60 days after the date on which the initial solid waste has been in place for a period of:

(1) 5 years or more if active; or

(2) 2 years or more if closed or at final grade.

(c) The following procedures shall be used for compliance with the surface methane operational standard as provided in § 60.753(d).

(1) After installation of the collection system, the owner or operator shall monitor surface concentrations of methane along the entire perimeter of the collection area and along a pattern that traverses the landfill at 30 meter intervals (or a site-specific established spacing) for each collection area on a quarterly basis using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in paragraph (d) of this section.

(2) The background concentration shall be determined by moving the probe inlet upwind and downwind outside the boundary of the landfill at a distance of at least 30 meters from the perimeter wells.

(3) Surface emission monitoring shall be performed in accordance with section 4.3.1 of Method 21 of appendix A of this part, except that the probe inlet shall be placed within 5 to 10 centimeters of the ground. Monitoring shall be performed during typical meteorological conditions.

(4) Any reading of 500 parts per million or more above background at any location shall be recorded as a monitored exceedance and the actions specified in paragraphs (c)(4) (i) through (v) of this section shall be taken. As long as the specified actions are taken, the exceedance is not a violation of the operational requirements of § 60.753(d).

(i) The location of each monitored exceedance shall be marked and the location recorded.

(ii) Cover maintenance or adjustments to the vacuum of the adjacent wells to increase the gas collection in the vicinity of each exceedance shall be made and the location shall be re-monitored within 10 calendar days of detecting the exceedance.

(iii) If the re-monitoring of the location shows a second exceedance, additional corrective action shall be taken and the location shall be monitored again within 10 days of the second exceedance. If the re-monitoring shows a third exceedance for the same location, the action specified in paragraph (c)(4)(v) of this section shall be taken, and no further monitoring of that location is required until the action specified in paragraph (c)(4)(v) has been taken.

(iv) Any location that initially showed an exceedance but has a methane concentration less than 500 ppm methane above background at the 10-day re-monitoring specified in paragraph (c)(4) (ii) or (iii) of this section shall be re-monitored 1 month from the initial exceedance. If the 1-month remonitoring shows a concentration less than 500 parts per million above background, no further monitoring of that location is required until the next quarterly monitoring period. If the 1-month remonitoring shows an exceedance, the actions specified in paragraph (c)(4) (iii) or (v) shall be taken.

(v) For any location where monitored methane concentration equals or exceeds 500 parts per million above background three times within a quarterly period, a new well or other collection device shall be installed within 120 calendar days of the initial exceedance. An alternative remedy to the exceedance, such as upgrading the blower, header pipes or control device, and a corresponding timeline for installation may be submitted to the Administrator for approval.

(5) The owner or operator shall implement a program to monitor for cover integrity and implement cover repairs as necessary on a monthly basis.

(d) Each owner or operator seeking to comply with the provisions in paragraph (c) of this section shall comply with the following instrumentation specifications and procedures for surface emission monitoring devices:

(1) The portable analyzer shall meet the instrument specifications provided in section 3 of Method 21 of appendix A of this part, except that ``methane" shall replace all references to VOC.

(2) The calibration gas shall be methane, diluted to a nominal concentration of 500 parts per million in air.

(3) To meet the performance evaluation requirements in section 3.1.3 of Method 21 of appendix A of this part, the instrument evaluation procedures of section 4.4 of Method 21 of appendix A of this part shall be used.

(4) The calibration procedures provided in section 4.2 of Method 21 of appendix A of this part shall be followed immediately before commencing a surface monitoring survey.

(e) The provisions of this subpart apply at all times, except during periods of start-up, shutdown, or malfunction, provided that the duration of start-up, shutdown, or malfunction shall not exceed 5 days for collection systems and shall not exceed 1 hour for treatment or control devices.

§ 60.756 Monitoring of operations.

Except as provided in § 60.752(b)(2)(i)(B),

(a) Each owner or operator seeking to comply with § 60.752(b)(2)(ii)(A) for an active gas collection system shall install a sampling port and a thermometer other temperature measuring device, or an access port for temperature measurements at each wellhead and:

(1) Measure the gauge pressure in the gas collection header on a monthly basis as provided in § 60.755(a)(3); and

(2) Monitor nitrogen or oxygen concentration in the landfill gas on a monthly basis as provided in § 60.755(a)(5); and

(3) Monitor temperature of the landfill gas on a monthly basis as provided in § 60.755(a)(5).

(b) Each owner or operator seeking to comply with § 60.752(b)(2)(iii) using an enclosed combustor shall calibrate, maintain, and operate according to the manufacturer's specifications, the following equipment.

(1) A temperature monitoring device equipped with a continuous recorder and having a minimum accuracy of ±1 percent of the temperature being measured expressed in degrees Celsius or ±0.5 degrees C, whichever is greater. A temperature monitoring device is not required for boilers or process heaters with design heat input capacity equal to or greater than 44 megawatts.

(2) A device that records flow to or bypass of the control device. The owner or operator shall either:

(i) Install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device at least every 15 minutes; or

(ii) Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.

(c) Each owner or operator seeking to comply with § 60.752(b)(2)(iii) using an open flare shall install, calibrate, maintain, and operate according to the manufacturer's specifications the following equipment:

(1) A heat sensing device, such as an ultraviolet beam sensor or thermocouple, at the pilot light or the flame itself to indicate the continuous presence of a flame.

(2) A device that records flow to or bypass of the flare. The owner or operator shall either:

(i) Install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device at least every 15 minutes; or

(ii) Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.

(d) Each owner or operator seeking to demonstrate compliance with § 60.752(b)(2)(iii) using a device other than an open flare or an enclosed combustor shall provide information satisfactory to the Administrator as provided in § 60.752(b)(2)(i)(B) describing the operation of the control device, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The Administrator shall review the information and either approve it, or request that additional information be submitted. The Administrator may specify additional appropriate monitoring procedures.

(e) Each owner or operator seeking to install a collection system that does not meet the specifications in § 60.759 or seeking to monitor alternative parameters to those required by § 60.753 through § 60.756 shall provide information satisfactory to the Administrator as provided in § 60.752(b)(2)(i) (B) and (C) describing the design and operation of the collection system, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The Administrator may specify additional appropriate monitoring procedures.

(f) Each owner or operator seeking to demonstrate compliance with § 60.755(c), shall monitor surface concentrations of methane according to the instrument specifications and procedures provided in § 60.755(d). Any closed landfill that has no monitored exceedances of the operational standard in three consecutive quarterly monitoring periods may skip to annual monitoring. Any methane reading of 500 ppm or more above background detected during the annual monitoring returns the frequency for that landfill to quarterly monitoring.

§ 60.757 Reporting requirements.

Except as provided in § 60.752(b)(2)(i)(B),
(a) Each owner or operator subject to the requirements of this subpart shall submit an initial design capacity report to the Administrator.

(1) The initial design capacity report shall fulfill the requirements of the notification of the date construction is commenced as required by § 60.7(a)(1) and shall be submitted no later than:

(i) June 10, 1996, for landfills that commenced construction, modification, or reconstruction on or after May 30, 1991 but before March 12, 1996 or

(ii) Ninety days after the date of commenced construction, modification, or reconstruction for landfills that commence construction, modification, or reconstruction on or after March 12, 1996.

(2) The initial design capacity report shall contain the following information:

(i) A map or plot of the landfill, prroviding the size and location of the landfill, and identifying all areas where solid waste may be landfilled according to the permit issued by the State, local, or tribal agency responsible for regulating the landfill.

(ii) The maximum design capacity of the landfill. Where the maximum design capacity is specified in the permit issued by the State, local, or tribal agency responsible for regulating the landfill, a copy of the permit specifying the maximum design capacity may be submitted as part of the report. If the maximum design capacity of the landfill is not specified in the permit, the maximum design capacity shall be calculated using good engineering practices. The calculations shall be provided, along with the relevant parameters as part of the report. The State, Tribal, local agency or Administrator may request other reasonable information as may be necessary to verify the maximum design capacity of the landfill.

(3) An amended design capacity report shall be submitted to the Administrator providing notification of an increase in the design capacity of the landfill, within 90 days of an increase in the maximum design capacity of the landfill to or above 2.5 million megagrams and 2.5 million cubic meters. This increase in design capacity may result from an increase in the permitted volume of the landfill or an increase in the density as documented in the annual recalculation required in § 60.758(f).

(b) Each owner or operator subject to the requirements of this subpart shall submit an NMOC emission rate report to the Administrator initially and annually thereafter, except as provided for in paragraphs (b)(1)(ii) or (b)(3) of this section. The Administrator may request such additional information as may be necessary to verify the reported NMOC emission rate.

(1) The NMOC emission rate report shall contain an annual or 5-year estimate of the NMOC emission rate calculated using the formula and procedures provided in § 60.754(a) or (b), as applicable.

(i) The initial NMOC emission rate reeport may be combined with the initial design capacity report required in paragraph (a) of this section and shall be submitted no later than indicated in paragraphs

(b)(1)(i)(A) and (B) of this section. Subsequent NMOC emission rate reports shall be submitted annually thereafter, except as provided for in paragraphs (b)(1)(ii) and (b)(3) of this section.

(A) June 10, 1996, for landfills that commenced construction, modification, or reconstruction on or after May 30, 1991, but before March 12, 1996, or

(B) Ninety days after the date of commenced construction, modification, or reconstruction for landfills that commence construction, modification, or reconstruction on or after March 12, 1996.

(ii) If the estimated NMOC emission rate as reported in the annual report to the Administrator is less than 50 megagrams per year in each of the next 5 consecutive years, the owner or operator may elect to submit an estimate of the NMOC emission rate for the next 5-year period in lieu of the annual report. This estimate shall include the current amount of solid waste-in-place and the estimated waste acceptance rate for each year of the 5 years for which an NMOC emission rate is estimated. All data and calculations upon which this estimate is based shall be provided to the Administrator. This estimate shall be revised at least once every 5 years. If the actual waste acceptance rate exceeds the estimated waste acceptance rate in any year reported in the 5-year estimate, a revised 5-year estimate shall be submitted to the Administrator. The revised estimate shall cover the 5-year period beginning with the year in which the actual waste acceptance rate exceeded the estimated waste acceptance rate.

(2) The NMOC emission rate report shall include all the data, calculations, sample reports and measurements used to estimate the annual or 5-year emissions.

(3) Each owner or operator subject to the requirements of this subpart is exempted from the requirements of paragraphs (b)(1) and (2) of this section, after the installation of a collection and control system in compliance with § 60.752(b)(2), during such time as the collection and control system is in operation and in compliance with § § 60.753 and 60.755.

(c) Each owner or operator subject to the provisions of § 60.752(b)(2)(i) shall submit a collection and control system design plan to the Administrator within 1 year of the first report required under paragraph (b) of this section, in which the emission rate exceeds 50 megagrams per year, except as follows:

(1) If the owner or operator elects to recalculate the NMOC emission rate after Tier 2 NMOC sampling and analysis as provided in § 60.754(a)(3) and the resulting rate is less than 50 megagrams per year, annual periodic reporting shall be resumed, using the Tier 2 determined site-specific NMOC concentration, until the calculated emission rate is equal to or greater than 50 megagrams per year or the landfill is closed. The revised NMOC emission rate report, with the recalculated emission rate based on NMOC sampling and analysis, shall be submitted within 180 days of the first calculated exceedance of 50 megagrams per year.

(2) If the owner or operator elects to recalculate the NMOC emission rate after determining a site-specific methane generation rate constant (k), as provided in Tier 3 in § 60.754(a)(4), and the resulting NMOC emission rate is less than 50 Mg/yr, annual periodic reporting shall be resumed. The resulting site-specific methane generation rate constant (k) shall be used in the emission rate calculation until such time as the emissions rate calculation results in an exceedance. The revised NMOC emission rate report based on the provisions of § 60.754(a)(4) and the resulting site-specific methane generation rate constant (k) shall be submitted to the Administrator within 1 year of the first calculated emission rate exceeding 50 megagrams per year.

(d) Each owner or operator of a controlled landfill shall submit a closure report to the Administrator within 30 days of waste acceptance cessation. The Administrator may request additional information as may be necessary to verify that permanent closure has taken place in accordance with the requirements of 40 CFR 258.60. If a closure report has been submitted to the Administrator, no additional wastes may be placed into the landfill without filing a notification of modification as described under § 60.7(a)(4).

(e) Each owner or operator of a controlled landfill shall submit an equipment removal report to the Administrator 30 days prior to removal or cessation of operation of the control equipment.

(1) The equipment removal report shall contain all of the following items:

(i) A copy of the closure report submitted in accordance with paragraph (d) of this section;

(ii) A copy of the initial performance test report demonstrating that the 15 year minimum control period has expired; and

(iii) Dated copies of three successive NMOC emission rate reports demonstrating that the landfill is no longer producing 50 megagrams or greater of NMOC per year.

(2) The Administrator may request such additional information as may be necessary to verify that all of the conditions for removal in § 60.752(b)(2)(v) have been met.

(f) Each owner or operator of a landfill seeking to comply with § 60.752(b)(2) using an active collection system designed in accordance with § 60.752(b)(2)(ii) shall submit to the Administrator annual reports of the recorded information in (f)(1) through (f)(6) of this paragraph. The initial annual report shall be submitted within 180 days of installation and start-up of the collection and control system, and shall include the initial performance test report required under § 60.8. For enclosed combustion devices and flares, reportable exceedances are defined under § 60.758(c).

(1) Value and length of time for exceedance of applicable parameters monitored under § 60.756(a), (b), (c), and (d).

(2) Description and duration of all periods when the gas stream is diverted from the control device through a bypass line or the indication of bypass flow as specified under § 60.756.

(3) Description and duration of all periods when the control device was not operating for a period exceeding 1 hour and length of time the control device was not operating.

(4) All periods when the collection system was not operating in excess of 5 days.

(5) The location of each exceedance of the 500 parts per million methane concentration as provided in § 60.753(d) and the concentration recorded at each location for which an exceedance was recorded in the previous month.

(6) The date of installation and the location of each well or collection system expansion added pursuant to paragraphs (a)(3), (b), and (c)(4) of § 60.755.

(g) Each owner or operator seeking to comply with § 60.752(b)(2)(iii) shall include the following information with the initial performance test report required under § 60.8:

(1) A diagram of the collection system showing collection system positioning including all wells, horizontal collectors, surface collectors, or other gas extraction devices, including the locations of any areas excluded from collection and the proposed sites for the future collection system expansion;

(2) The data upon which the sufficient density of wells, horizontal collectors, surface collectors, or other gas extraction devices and the gas mover equipment sizing are based;

(3) The documentation of the presence of asbestos or nondegradable material for each area from which collection wells have been excluded based on the presence of asbestos or nondegradable material;

(4) The sum of the gas generation flow rates for all areas from which collection wells have been excluded based on nonproductivity and the calculations of gas generation flow rate for each excluded area; and

(5) The provisions for increasing gas mover equipment capacity with increased gas generation flow rate, if the present gas mover equipment is inadequate to move the maximum flow rate expected over the life of the landfill; and

(6) The provisions for the control of off-site migration.

§ 60.758 Recordkeeping requirements.

(a) Except as provided in § 60.752(b)(2)(i)(B), each owner or operator of an MSW landfill subject to the provisions of § 60.752(b) shall keep for at least 5 years up-to-date, readily accessible, on-site records of the design capacity report which triggered § 60.752(b), the current amount of solid waste in-place, and the year-

by-year waste acceptance rate. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable.

(b) Except as provided in § 60.752(b)(2)(i)(B), each owner or operator of a controlled landfill shall keep up-to-date, readily accessible records for the life of the control equipment of the data listed in paragraphs (b)(1) through (b)(4) of this section as measured during the initial performance test or compliance determination. Records of subsequent tests or monitoring shall be maintained for a minimum of 5 years. Records of the control device vendor specifications shall be maintained until removal.

(1) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with § 60.752(b)(2)(ii):

(i) The maximum expected gas generation flow rate as calculated in § 60.755(a)(1). The owner or operator may use another method to determine the maximum gas generation flow rate, if the method has been approved by the Administrator.

(ii) The density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in § 60.759(a)(1).

(2) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with § 60.752(b)(2)(iii) through use of an enclosed combustion device other than a boiler or process heater with a design heat input capacity greater than 44 megawatts:

(i) The average combustion temperature measured at least every 15 minutes and averaged over the same time period of the performance test.

(ii) The percent reduction of NMOC determined as specified in § 60.752(b)(2)(iii)(B) achieved by the control device.

(3) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with § 60.752(b)(2)(iii)(B)(1) through use of a boiler or process heater of any size: a description of the location at which the collected gas vent stream is introduced into the boiler or process heater over the same time period of the performance testing.

(4) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with § 60.752(b)(2)(iii)(A) through use of an open flare, the flare type (i.e., steam-assisted, air-assisted, or nonassisted), all visible emission readings, heat content determination, flow rate or bypass flow rate measurements, and exit velocity determinations made during the performance test as specified in § 60.18; continuous records of the flare pilot flame or flare flame monitoring and records of all periods of operations during which the pilot flame of the flare flame is absent.

(c) Except as provided in § 60.752(b)(2)(i)(B), each owner or operator of a controlled landfill subject to the provisions of this subpart shall keep for 5 years up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored in § 60.756 as well as up-to-date, readily accessible records for periods of operation during which the parameter boundaries established during the most recent performance test are exceeded.

(1) The following constitute exceedances that shall be recorded and reported under § 60.757(f):

(i) For enclosed combustors except for boilers and process heaters with design heat input capacity of 44 megawatts (150 million British thermal unit per hour) or greater, all 3-hour periods of operation during which the average combustion temperature was more than 28 °C below the average combustion temperature during the most recent performance test at which compliance with § 60.752(b)(2)(iii) was determined.

(ii) For boilers or process heaters, whenever there is a change in the location at which the vent stream is introduced into the flame zone as required under paragraph (b)(3) of this section.

(2) Each owner or operator subject to the provisions of this subpart shall keep up-to-date, readily accessible continuous records of the indication of flow to the control device or the indication of bypass flow or records of monthly inspections of car-seals or lock-and-key configurations used to seal bypass lines, specified under § 60.756.

(3) Each owner or operator subject to the provisions of this subpart who uses a boiler or process heater with a design heat input capacity of 44 megawatts or greater to comply with § 60.752(b)(2)(iii) shall keep an up-to-date, readily accessible record of all periods of operation of the boiler or process heater. (Examples of such records could include records of steam use, fuel use, or monitoring data collected pursuant to other State, local, Tribal, or Federal regulatory requirements.)

(4) Each owner or operator seeking to comply with the provisions of this subpart by use of an open flare shall keep up-to-date, readily accessible continuous records of the flame or flare pilot flame monitoring specified under § 60.756(c), and up-to-date, readily accessible records of all periods of operation in which the flame or flare pilot flame is absent.

(d) Except as provided in § 60.752(b)(2)(i)(B), each owner or operator subject to the provisions of this subpart shall keep for the life of the collection system an up-to-date, readily accessible plot map showing each existing and planned collector in the system and providing a unique identification location label for each collector.

(1) Each owner or operator subject to the provisions of this subpart shall keep up-to-date, readily accessible records of the installation date and location of all newly installed collectors as specified under § 60.755(b).

(2) Each owner or operator subject to the provisions of this subpart shall keep readily accessible documentation of the nature, date of deposition, amount, and location of asbestos-containing or nondegradable waste excluded from collection as provided in § 60.759(a)(3)(i) as well as any nonproductive areas excluded from collection as provided in § 60.759(a)(3)(ii).

(e) Except as provided in § 60.752(b)(2)(i)(B), each owner or operator subject to the provisions of this subpart shall keep for at least 5 years up-to-date, readily accessible records of all collection and control system exceedances of the operational standards in § 60.753, the reading in the subsequent month whether or not the second reading is an exceedance, and the
location of each exceedance.

(f) Landfill owners or operators who convert design capacity from volume to mass or mass to volume to demonstrate that landfill design capacity is less than 2.5 million megagrams or 2.5 million cubic meters, as provided in the definition of ``design capacity", shall keep readily accessible, on-site records of the annual recalculation of site-specific density, design capacity, and the supporting documentation. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable.

§ 60.759 Specifications for active collection systems.

(a) Each owner or operator seeking to comply with § 60.752(b)(2)(i) shall site active collection wells, horizontal collectors, surface collectors, or other extraction devices at a sufficient density throughout all gas producing areas using the following procedures unless alternative procedures have been approved by the Administrator as provided in § 60.752(b)(2)(i)(C) and (D):

(1) The collection devices within the interior and along the perimeter areas shall be certified to achieve comprehensive control of surface gas emissions by a professional engineer. The following issues shall be addressed in the design: depths of refuse, refuse gas generation rates and flow characteristics, cover properties, gas system expandibility, leachate and condensate management, accessibility, compatibility with filling operations, integration with closure end use, air intrusion control, corrosion resistance, fill settlement, and resistance to the refuse decomposition heat.

(2) The sufficient density of gas collection devices determined in paragraph (a)(1) of this section shall address landfill gas migration issues and augmentation of the collection system through the use of active or passive systems at the landfill perimeter or exterior.

(3) The placement of gas collection devices determined in paragraph (a)(1) of this section shall control all gas producing areas, except as provided by paragraphs (a)(3)(i) and (a)(3)(ii) of this section.

(i) Any segregated area of asbestos or nondegradable material may be excluded from collection if documented as provided under § 60.758(d). The documentation shall provide the nature, date of deposition, location and amount of asbestos or nondegradable material deposited in the area, and shall be provided to the Administrator upon request.

(ii) Any nonproductive area of the landfill may be excluded from control, provided that the total of all excluded areas can be shown to contribute less than 1 percent of the total amount of NMOC emissions from the landfill. The amount, location, and age of the material shall be documented and provided to the Administrator upon request. A separate NMOC emissions estimate shall be made for each section proposed for exclusion, and the sum of all such sections shall be compared to the NMOC emissions estimate for the entire landfill. Emissions from each section shall be computed using the following equation:

$$Q_i = 2\ k\ L_o\ M_i\ (e^{-kt_i})\ (C_{NMOC})\ (3.6 \times 10^{-9})$$

where,

Q_i = NMOC emission rate from the ith section, megagrams per year
k = methane generation rate constant, $year^{-1}$
L_o = methane generation potential, cubic meters per megagram solid waste
M_i = mass of the degradable solid waste in the i^{th} section, megagram
t_i = age of the solid waste in the i^{th} section, years
C_{NMOC} = concentration of nonmethane organic compounds, parts per million by volume
3.6×10^{-9} = conversion factor

(iii) The values for k and C_{NMOC} determined in field testing shall be used if field testing has been performed in determining the NMOC emission rate or the radii of influence (the distance from the well center to a point in the landfill where the pressure gradient applied by the blower or compressor approaches zero). If field testing has not been performed, the default values for k, L_o and C_{NMOC} provided in § 60.754(a)(1) or the alternative values from § 60.754(a)(5) shall be used. The mass of nondegradable solid waste contained within the given section may be subtracted from the total mass of the section when estimating emissions provided the nature, location, age, and amount of the nondegradable material is documented as provided in paragraph (a)(3)(i) of this section.

(b) Each owner or operator seeking to comply with § 60.752(b)(2)(i)(A) shall construct the gas collection devices using the following equipment or procedures:

(1) The landfill gas extraction components shall be constructed of polyvinyl chloride (PVC), high density polyethylene (HDPE) pipe, fiberglass, stainless steel, or other nonporous corrosion resistant material of suitable dimensions to: convey projected amounts of gases; withstand installation, static, and settlement forces; and withstand planned overburden or traffic loads. The collection system shall extend as necessary to comply with emission and migration standards. Collection devices such as wells and horizontal collectors shall be perforated to allow gas entry without head loss sufficient to impair performance across the intended extent of control. Perforations shall be situated with regard to the need to prevent excessive air infiltration.

(2) Vertical wells shall be placed so as not to endanger underlying liners and shall address the occurrence of water within the landfill. Holes and trenches constructed for piped wells and horizontal collectors shall be of sufficient cross-section so as to allow for their proper construction and completion including, for example, centering of pipes and placement of gravel backfill. Collection devices shall be designed so as not to allow indirect short circuiting of air into the cover or refuse into the collection system or gas into the air. Any gravel used around pipe perforations should be of a dimension so as not to penetrate or block perforations.

(3) Collection devices may be connected to the collection header pipes below or above the landfill surface. The connector assembly shall include a positive closing throttle valve, any necessary seals and

couplings, access couplings and at least one sampling port. The collection devices shall be constructed of PVC, HDPE, fiberglass, stainless steel, or other nonporous material of suitable thickness.

(c) Each owner or operator seeking to comply with § 60.752(b)(2)(i)(A) shall convey the landfill gas to a control system in compliance with § 60.752(b)(2)(iii) through the collection header pipe(s). The gas mover equipment shall be sized to handle the maximum gas generation flow rate expected over the intended use period of the gas moving equipment using the following procedures:

(1) For existing collection systems, the flow data shall be used to project the maximum flow rate. If no flow data exists, the procedures in paragraph (c)(2) of this section shall be used.

(2) For new collection systems, the maximum flow rate shall be in accordance with § 60.755(a)(1).

Memorandum

Florida Department of
Environmental Protection

TO: ~~Trina Vielhauer~~

THRU: Al Linero 3/12

FROM: Teresa Heron/Syed Arif

DATE: March 11, 2003

SUBJECT Omni Waste of Osceola County
Oak Hammond Disposal (OHD) Facility
Municipal Solid Waste Class I Landfill with two Flare Systems

Attached for your review is the construction permit for Omni Waste's OHD facility. This permitting action is for the construction of a municipal solid waste landfill with two flares. The OHD facility site comprises over 2000 acres.

The complete build-out of the OHD facility includes 21 landfill cells with a total footprint of approximately 264 acres. This landfill will be constructed in six phases. This air construction permit is for Phase I. This Phase includes four landfill cells with a total footprint of approximately 53 acres and ancillary facilities supporting the operation of the landfill. This Phase I also includes two flares.

We have included provisions that insure the project will not trigger PSD during Phase I. We consulted with EPA regarding the proper approach on the matter. We clarified in the write-up that the project will not be exempt from PSD on the basis of our Pollution Control Project Exemption Rule. The reason is that installation of the landfill collection and flare system is actually caused by present day construction of the new landfill and reasonable assurance that odor will be controlled and not solely by a future requirement to comply with 40 CFR 60, Subpart WWW. This interpretation of our rule treats the Subpart as the minimum requirement under any future PSD/BACT determination.

The proposed distribution date of March 14 is Day 39 per our clock.

We recommend distribution of the attached Intent to Issue and Draft Permit.

Attachments

GEOSYNTEC CONSULTANTS

14055 Riveredge Drive, Suite 300
Tampa, Florida 33637 • USA
Telephone (813) 558-0990 • Fax (813) 558-9726

31 January 2003

Al Linero
Bureau of Air Regulation
Mail Station 5505
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Dear Mr. Linero:

Please find 4 copies of the Air Construction Permit Application (and supporting documents) for the Oak Hammock Disposal facility in Osceola County, Florida. A check of $5,000 towards the application processing fee is also included.

If you have any questions or need additional information, please do not hesitate to contact the undersigned.

Sincerely,

Kenneth W. Cargill, P.E.
Principal

AG:ag

Attachments

Prepared for

Omni Waste

Omni Waste of Osceola County, LLC
100 Church Street
Kissimmee, Florida 34741

APPLICATION FOR AN AIR CONSTRUCTION PERMIT OAK HAMMOCK DISPOSAL FACILITY

Prepared by

GeoSyntec Consultants
14055 Riveredge Drive, Suite 300
Tampa, Florida 33637

Project Number FW0400

January 2003

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PERMIT APPLICATION

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Project Background 1
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ATTACHMENT 1 – AIR POLLUTANTS/LFG CONSTITUENTS EMISSION FOR WASTE DISPOSAL RATE OF 474,000 TONS/YEAR

ATTACHMENT 2 – LANDFILL GAS CONSTITUENTS EMISSION ESTIMATED USING AP-42 SECTION 2.4

ATTACHMENT 3 – LANDFILL GAS CONSTITUENTS EMISSION ESTIMATED USING USEPA SOFTWARE

RECEIVED

FEB 03 2003

BUREAU OF AIR REGULATION

Department of Environmental Protection

Division of Air Resources Management

APPLICATION FOR AIR PERMIT - TITLE V SOURCE

See Instructions for Form No. 62-210.900(1)

I. APPLICATION INFORMATION

Identification of Facility

1. Facility Owner/Company Name: **Omni Waste of Osceola County, LLC**	
2. Site Name: **Oak Hammock Disposal (OHD) Facility**	
3. Facility Identification Number: [X] Unknown	
4. Facility Location: **Approximately 6.5 miles south of Holopaw, Florida, on Highway U.S. 441** Street Address or Other Locator: City: County: **Osceola** Zip Code:	
5. Relocatable Facility? [ ] Yes [X] No	6. Existing Permitted Facility? [ ] Yes [X] No

Application Contact

1. Name and Title of Application Contact: **Kenneth W. Cargill, P.E.** **Principal and Branch Manager**
2. Application Contact Mailing Address: Organization/Firm: **GeoSyntec Consultants** Street Address: **14055 Riveredge Drive, Suite 300** City: **Tampa** State: **FL** Zip Code: **33637**
3. Application Contact Telephone Numbers: Telephone: **(813) 558-0990** Fax: **(813) 558-9726**

Application Processing Information (DEP Use)

1. Date of Receipt of Application:	0970019-001-AC
2. Permit Number:	2/3/03
3. PSD Number (if applicable):	
4. Siting Number (if applicable):	

Purpose of Application

Air Operation Permit Application

This Application for Air Permit is submitted to obtain: (Check one)

[ ] Initial Title V air operation permit for an existing facility which is classified as a Title V source.

[ ] Initial Title V air operation permit for a facility which, upon start up of one or more newly constructed or modified emissions units addressed in this application, would become classified as a Title V source.

Current construction permit number:_____

[ ] Title V air operation permit revision to address one or more newly constructed or modified emissions units addressed in this application.

Current construction permit number:_____

Operation permit number to be revised:_____

[ ] Title V air operation permit revision or administrative correction to address one or more proposed new or modified emissions units and to be processed concurrently with the air construction permit application. (Also check Air Construction Permit Application below.)

Operation permit number to be revised/corrected:_____

[ ] Title V air operation permit revision for reasons other than construction or modification of an emissions unit. Give reason for the revision; e.g., to comply with a new applicable requirement or to request approval of an "Early Reductions" proposal.

Operation permit number to be revised:_____

Reason for revision:_____

Air Construction Permit Application

This Application for Air Permit is submitted to obtain: (Check one)

[**X**] Air construction permit to construct or modify one or more emissions units.

[ ] Air construction permit to make federally enforceable an assumed restriction on the potential emissions of one or more existing, permitted emissions units.

[ ] Air construction permit for one or more existing, but unpermitted, emissions units.

Owner/Authorized Representative or Responsible Official

1. Name and Title of Owner/Authorized Representative or Responsible Official:
   Timothy J. Salopek, President
2. Owner/Authorized Representative or Responsible Official Mailing Address:
   Organization/Firm: **Omni Waste of Osceola County, LLC**
   Street Address: **100 Church Street**
   City: **Kissimmee** State: **FL** Zip Code: **34741**
3. Owner/Authorized Representative or Responsible Official Telephone Numbers:
   Telephone: **(407) 957 - 7284** Fax: **(407) 957 - 7202**
4. Owner/Authorized Representative or Responsible Official Statement:

   I, the undersigned, am the owner or authorized representative(check here [ ], if so) or the responsible official (check here [**X**], if so) of the Title V source addressed in this application, whichever is applicable. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof. I understand that a permit, if granted by the Department, cannot be transferred without authorization from the Department, and I will promptly notify the Department upon sale or legal transfer of any permitted emissions unit.*

   Signature _____ Date 1/30/03

* Attach letter of authorization if not currently on file.

Professional Engineer Certification

1. Professional Engineer Name: **Kenneth W. Cargill**
   Registration Number: **54435**
2. Professional Engineer Mailing Address:
   Organization/Firm: **GeoSyntec Consultants**
   Street Address: **14055 Riveredge Drive, Suite 300**
   City: **Tampa** State: **FL** Zip Code: **33637**
3. Professional Engineer Telephone Numbers:
   Telephone: **(813) 558-0990** Fax: **(813) 558-9726**

4. Professional Engineer Statement:

I, the undersigned, hereby certify, except as particularly noted herein, that:*

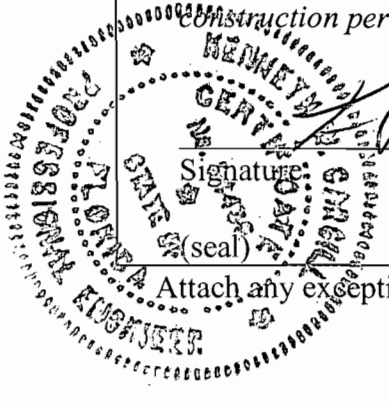
(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this Application for Air Permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and

(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.

If the purpose of this application is to obtain a Title V source air operation permit (check here [ ], if so), I further certify that each emissions unit described in this Application for Air Permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance schedule is submitted with this application.

*If the purpose of this application is to obtain an air construction permit for one or more proposed new or modified emissions units (check here [**X**], if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.*

If the purpose of this application is to obtain an initial air operation permit or operation permit revision for one or more newly constructed or modified emissions units (check here [ ], if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.



Signature (seal)

30 January 2003
Date

Attach any exception to certification statement.

Scope of Application

Emissions Unit ID	Description of Emissions Unit	Permit Type	Processing Fee
1	**Class I MSW landfill with up to 2 flares installed as part of gas extraction and control system during the first 5 years of operation.**	**AC1B**	**$ 5,000**

Application Processing Fee

Check one: [**X**] Attached - Amount: **$ 5,000** [ ] Not Applicable

Construction/Modification Information

1. Description of Proposed Project or Alterations:

Construction of a Class I MSW landfill with maximum waste disposal rate of 4,000 tons/day.

In the first 5 years (corresponding to the duration of solid waste construction and operation permit issued by FDEP), Phase 1 of the OHD facility will be constructed. Phase 1 includes four landfill cells with a footprint of approximately 53 acres and ancillary support facilities.

2. Projected or Actual Date of Commencement of Construction: **April, 2003**

3. Projected Date of Completion of Construction: **September 2003**

Application Comment

During the first 5 years of operation of the OHD facility, the maximum emissions from the proposed landfill are:
< 50 tons/yr prior to installing a gas extraction and control system and
< 190 tons/yr after installing a gas extraction and control system using flare(s) as the control device.

See attached report for details.

II. FACILITY INFORMATION

A. GENERAL FACILITY INFORMATION

Facility Location and Type

1. Facility UTM Coordinates: **Section 11 & 14 Township 28S Range 33E** Zone: **17** East (km): **190.4** North (km): **413.5**			
2. Facility Latitude/Longitude: Latitude (DD/MM/SS): **28° 03' 56.9''** Longitude (DD/MM/SS): **81° 05' 51.9''**			
3. Governmental Facility Code: **0**	4. Facility Status Code: **C**	5. Facility Major Group SIC Code: **95**	6. Facility SIC(s): **9511**
7. Facility Comment (limit to 500 characters): **Proposed OHD facility is a Class I MSW landfill with a maximum waste disposal rate of 4,000 tons/day.** **It is anticipated that during the first 5 years of operation, the OHD facility will not exceed a waste disposal rate of 2,000 tons/day. However, in order to preclude any required modification to the air permit, a worst-case waste disposal rate of 4,000 tons/day has been assumed in the calculation of air emissions. See attached report for details.**			

Facility Contact

1. Name and Title of Facility Contact: **Timothy J. Salopek, President**
2. Facility Contact Mailing Address: Organization/Firm: **Omni Waste of Osceola County, LLC** Street Address: **100 Church Street** City: **Kissimmee** State: **FL** Zip Code: **33637**
3. Facility Contact Telephone Numbers: Telephone: **(407) 957-7284** Fax: **(407) 957-7202**

Facility Regulatory Classifications

Check all that apply:

1. [ ] Small Business Stationary Source? [**X**] Unknown
2. [**X**] Major Source of Pollutants Other than Hazardous Air Pollutants (HAPs)?
3. [ ] Synthetic Minor Source of Pollutants Other than HAPs?
4. [ ] Major Source of Hazardous Air Pollutants (HAPs)?
5. [ ] Synthetic Minor Source of HAPs?
6. [**X**] One or More Emissions Units Subject to NSPS?
7. [ ] One or More Emission Units Subject to NESHAP?
8. [**X**] Title V Source by EPA Designation?
9. Facility Regulatory Classifications Comment (limit to 200 characters): **The facility is only a major source of Carbon Monoxide (CO) due to CO emissions from flare(s). Flare(s) will be installed as part of the gas extraction and control system as required by 40 CFR 60.752 for MSW landfills having a design capacity grater than 2.75 million tons.**

List of Applicable Regulations

40 CFR 60, Subpart WWW	
40 CFR 60.18	
62-4.050 (4)(a)2.	
62-204.800(7)(b)72.	
62-210.200 & 62-210.300	
62-212.400	
62-296.100	

B. FACILITY POLLUTANTS

List of Pollutants Emitted

1. Pollutant Emitted	2. Pollutant Classif.	3. Requested Emissions Cap lb/hour	3. Requested Emissions Cap tons/year	4. Basis for Emissions Cap	5. Pollutant Comment
CO	**A**		**249**	**ESCPSD**	**Carbon Monoxide**
TRS	**B**				**Total Reduced Sulfur**
NMOC	**B**				**Nonmethane Organic Compounds**
VOC	**B**				**Volatile Organic Compounds**
H001 to H189	**B**				**Any Individual HAP**
HAPS	**B**				**Total Hazardous Air Pollutants**
H106	**B**				**Hydrogen Chloride**
H114	**B**				**Mercury**
NOX	**B**				**Nitrogen Dioxide**
PM	**B**				**Particulate Matter - Total**

C. FACILITY SUPPLEMENTAL INFORMATION

Supplemental Requirements

1. Area Map Showing Facility Location:
   [**X**] Attached, Document ID: **Attached Report** [ ] Not Applicable [ ] Waiver Requested

2. Facility Plot Plan:
   [**X**] Attached, Document ID: **Attached Report** [ ] Not Applicable [ ] Waiver Requested

3. Process Flow Diagram(s):
   [ ] Attached, Document ID: _____ [**X**] Not Applicable [ ] Waiver Requested

4. Precautions to Prevent Emissions of Unconfined Particulate Matter:
   [ ] Attached, Document ID: _____ [**X**] Not Applicable [ ] Waiver Requested

5. Fugitive Emissions Identification:
   [**X**] Attached, Document ID: **Attached Report** [ ] Not Applicable [ ] Waiver Requested

6. Supplemental Information for Construction Permit Application:
   [ ] Attached, Document ID:_____ [**X**] Not Applicable

7. Supplemental Requirements Comment:

In the first 5 years of operation, the OHD facility is expected to emit all pollutants, except for CO, considerably below the threshold levels. CO emission level exceeds the threshold level of 100 tons/year only due to the flares(s) that will be installed as part of the gas extraction and control system.

Additional Supplemental Requirements for Title V Air Operation Permit Applications

8. List of Proposed Insignificant Activities: [ ] Attached, Document ID:_____ [ ] Not Applicable
9. List of Equipment/Activities Regulated under Title VI: [ ] Attached, Document ID:_____ [ ] Equipment/Activities On site but Not Required to be Individually Listed [ ] Not Applicable
10. Alternative Methods of Operation: [ ] Attached, Document ID:_____ [ ] Not Applicable
11. Alternative Modes of Operation (Emissions Trading): [ ] Attached, Document ID:_____ [ ] Not Applicable
12. Identification of Additional Applicable Requirements: [ ] Attached, Document ID:_____ [ ] Not Applicable
13. Risk Management Plan Verification: [ ] Plan previously submitted to Chemical Emergency Preparedness and Prevention Office (CEPPO). Verification of submittal attached (Document ID:_____) or previously submitted to DEP (Date and DEP Office:_____) [ ] Plan to be submitted to CEPPO (Date required:_____) [ ] Not Applicable
14. Compliance Report and Plan: [ ] Attached, Document ID:_____ [ ] Not Applicable
15. Compliance Certification (Hard-copy Required): [ ] Attached, Document ID:_____ [ ] Not Applicable

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through J as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

A. GENERAL EMISSIONS UNIT INFORMATION
(All Emissions Units)

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in This Section: (Check one)

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

[**X**] This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Regulated or Unregulated Emissions Unit? (Check one)

[**X**] The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

[ ] The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

3. Description of Emissions Unit Addressed in This Section (limit to 60 characters):
Class I MSW landfill with up to 2 flares installed as part of the gas extraction and control system during the first 5 years of operation.

4. Emissions Unit Identification Number: [**X**] No ID
ID: [ ] ID Unknown

5. Emissions Unit Status Code:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:	8. Acid Rain Unit? [ ]
C	**Landfill – Sept, 2003** **Flare(s) – Sept, 2006**	**95**	**No**

9. Emissions Unit Comment: (Limit to 500 Characters)
Emissions reported in this application are for the first 5 years of landfill operation corresponding to the 5-year solid waste construction and operation permit issued by FDEP for Phase 1 development of the OHD facility.

Emissions Unit Control Equipment

1. Control Equipment/Method Description (Limit to 200 characters per device or method):

Equipment: Up to 2 landfill gas flare(s) in the first 5 years of operation.
Method: Flaring MSW landfill gas collected by the gas extraction and control system.

2. Control Device or Method Code(s): **023**

Emissions Unit Details

1. Package Unit:		
Manufacturer:	Model Number:	
2. Generator Nameplate Rating:	MW	
3. Incinerator Information:		
Dwell Temperature:		°F
Dwell Time:		seconds
Incinerator Afterburner Temperature:		°F

B. EMISSIONS UNIT CAPACITY INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Operating Capacity and Schedule

1. Maximum Heat Input Rate:		mmBtu/hr
2. Maximum Incineration Rate:	lb/hr	tons/day
3. Maximum Process or Throughput Rate:		
4. Maximum Production Rate:		
5. Requested Maximum Operating Schedule:		
	hours/day	days/week
	weeks/year	hours/year

6. Operating Capacity/Schedule Comment (limit to 200 characters):

Information regarding the flare(s) will be provided in the Title V Air Operation Permit, which will be submitted to FDEP within 180 days of start of waste disposal at the OHD facility.

C. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

List of Applicable Regulations

40 CFR 60, Subpart WWW	
40 CFR 60.18	
62-4.050 (4)(a)2.	
62-204.800(7)(b)72.	
62-210.200 & 62-210.300	
62-212.400	
62-296.100	

D. EMISSION POINT (STACK/VENT) INFORMATION
(Regulated Emissions Units Only)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram?	2. Emission Point Type Code:	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:		
5. Discharge Type Code:	6. Stack Height: feet	7. Exit Diameter: feet
8. Exit Temperature: °F	9. Actual Volumetric Flow Rate: acfm	10. Water Vapor: %
11. Maximum Dry Standard Flow Rate: dscfm	12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates: Zone:	East (km):	North (km):
14. Emission Point Comment (limit to 200 characters): **Information regarding the flare(s) will be provided in the Title V Air Operation Permit, which will be submitted to FDEP within 180 days of start of waste disposal at the OHD facility.**		

E. SEGMENT (PROCESS/FUEL) INFORMATION
(All Emissions Units)

Segment Description and Rate: Segment 1 of 2

1. Segment Description (Process/Fuel Type) (limit to 500 characters):		
Potential/fugitive emissions related to Class I MSW landfill with a maximum waste disposal rate of 4,000 tons/day.		
2. Source Classification Code (SCC): **50200602**	3. SCC Units: **Tons Stored**	
4. Maximum Hourly Rate:	5. Maximum Annual Rate: **1.144 million tons**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters): **Waste storage at the OHD facility assumes landfill operation for 5.5 days per week corresponding to 286 equivalent full days per year.** **See attached report for details.**		

Segment Description and Rate: Segment 2 of 2

1. Segment Description (Process/Fuel Type) (limit to 500 characters):		
Emissions related to MSW landfill gas burned in the flare(s) that will be installed as part of the gas extraction and control system.		
2. Source Classification Code (SCC): **50200601**	3. SCC Units: **Million Cubic Feet Burned**	
4. Maximum Hourly Rate:	5. Maximum Annual Rate: **907 million cu. ft. burned**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters): **Maximum landfill gas generation rate in the first 5 years of operation of the OHD facility is approximately 1,210 million cu. ft. per year. Assuming a 75 percent collection efficiency of the gas extraction and control system, the maximum landfill gas burned at the flare(s) is approximately 907 million cu. ft. per year.** **See attached report for details (landfill gas generation rate is discussed in Attachment 2 of the report).**		

F. EMISSIONS UNIT POLLUTANTS
(All Emissions Units)

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
CO			**EL**
TRS			**EL**
NMOC	**023**		**EL**
VOC	**023**		**EL**
Any Individual HAP (H001 to H189)	**023**		**EL**
HAPS	**023**		**EL**
H106			**NS**
H114			**EL**
NOX (Nitrogen Dioxide)			**EL**
PM			**EL**
Note : For OHD MSW landfill, emission unit is same as the facility.			

Emissions Unit Information Section 1 of 1

Pollutant Detail Information Page 1 of 10

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units -
Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **CO**	2. Total Percent Efficiency of Control:
3. Potential Emissions: lb/hour **188.1**[(a)] tons/year	4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [X] 3[(b)] to tons/year	
6. Emission Factor: **See attached report** Reference: **USEPA AP-42 Section 2.4 (1998)**	7. Emissions Method Code: **3**
8. Calculation of Emissions (limit to 600 characters): **See attached report and associated attachments.**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): [(a)] **Potential emission reported represents CO emissions at the end of 5 years. It is noted that the gas extraction and control system with flare(s) will be installed in the third year of the OHD facility operation for waste disposal rate of 4,000 tons/day.** [(b)] **For OHD MSW landfill, emission unit is same as the facility.**	

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: **ESCPSD**	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **249 tons/year**	4. Equivalent Allowable Emissions: lb/hour **249** tons/year
5. Method of Compliance (limit to 60 characters): **Will be provided in the Title V Air Operation Permit, which will be submitted to FDEP within 180 days of start of waste disposal at the OHD facility.**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):	

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **TRS (as SO_2)**	2. Total Percent Efficiency of Control: **99.7**
3. Potential Emissions: lb/hour **4.6**[a] tons/year	4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [X] 1[b] [ ] 2 [ ] 3 to tons/year	
6. Emission Factor: **See attached report** Reference: **USEPA AP-42 Section 2.4 (1998)**	7. Emissions Method Code: **3**
8. Calculation of Emissions (limit to 600 characters): **See attached report and associated attachments.**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): [a] **Potential emission reported represents SO_2 emissions at the end of 5 years. It is noted that the gas extraction and control system with flare(s) will be installed in the third year of the OHD facility operation for waste disposal rate of 4,000 tons/day.** [b] **Less than the reporting threshold of 5 tons/year.**	

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **4.6 tons/year**	4. Equivalent Allowable Emissions: lb/hour **4.6** tons/year
5. Method of Compliance (limit to 60 characters):	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **See attached report and associated attachments.**	

Emissions Unit Information Section 1 of 1

Pollutant Detail Information Page 3 of 10

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units -
Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **NMOC**	2. Total Percent Efficiency of Control: **99.2**
3. Potential Emissions: lb/hour **49.4**[(a)] tons/year	4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: **See attached report** Reference: **USEPA AP-42 Section 2.4 (1998)**	7. Emissions Method Code: **3**
8. Calculation of Emissions (limit to 600 characters): **See attached report and associated attachments.**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): [(a)] **Potential emission reported conservatively represents NMOC emissions at the end of 3 years of the OHD facility operation. It is noted that the gas extraction and control system with flare(s) will be installed in the third year of operation for waste disposal rate of 4,000 tons/day.** **Also note that for OHD MSW landfill, emission unit is same as the facility.**	

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **49.4 tons/year**	4. Equivalent Allowable Emissions: lb/hour **49.4** tons/year
5. Method of Compliance (limit to 60 characters):	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **See attached report and associated attachments.**	

Emissions Unit Information Section 1 of 1

Pollutant Detail Information Page 4 of 10

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **VOC**	2. Total Percent Efficiency of Control: **98.0 to 99.7**
3. Potential Emissions: lb/hour **17.6** [a] tons/year	4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [X] 1 [b] [ ] 2 [ ] 3 to tons/year	
6. Emission Factor: **See attached report** Reference: **USEPA AP-42 Section 2.4 (1998)**	7. Emissions Method Code: **3**
8. Calculation of Emissions (limit to 600 characters): **See attached report and associated attachments.**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): [a] **Potential emission reported conservatively represents VOC emissions at the end of 3 years of the OHD facility operation. It is noted that the gas extraction and control system with flare(s) will be installed in the third year of operation for waste disposal rate of 4,000 tons/day.** [b] **For OHD MSW landfill, emission unit is same as the facility.**	

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **17.6 tons/year**	4. Equivalent Allowable Emissions: lb/hour **17.6** tons/year
5. Method of Compliance (limit to 60 characters):	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **See attached report and associated attachments.**	

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units -
Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted:	2. Total Percent Efficiency of Control:
Any Individual HAP (H001 to H189)	**98.0 to 99.7**

3. Potential Emissions:	4. Synthetically Limited? [ ]
lb/hour **3.5** [a]	

5. Range of Estimated Fugitive Emissions:
[ ] 1 [**X**] 2 [b] [ ] 3 to tons/year

6. Emission Factor: **See attached report**	7. Emissions Method Code:
Reference: **USEPA AP-42 Section 2.4 (1998)**	**3**

8. Calculation of Emissions (limit to 600 characters):

See attached report and associated attachments.

9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):

[a] **Potential emission reported conservatively represents maximum emissions for any individual HAP at the end of 3 years of the OHD facility operation. It is noted that the gas extraction and control system with flare(s) will be installed in the third year of operation for waste disposal rate of 4,000 tons/day.**

[b] **For OHD MSW landfill, emission unit is same as the facility.**

Allowable Emissions Allowable Emissions **1** of **1**

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
OTHER	

3. Requested Allowable Emissions and Units:	4. Equivalent Allowable Emissions:
3.5 tons/year	lb/hour **3.5** tons/year

5. Method of Compliance (limit to 60 characters):

6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):
See attached report and associated attachments.

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **HAPS**	2. Total Percent Efficiency of Control: **98.0 to 99.7**
3. Potential Emissions: lb/hour **10.3** [a] tons/year	4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [ ] 1 [X] 2 [b] [ ] 3 to tons/year	
6. Emission Factor: **See attached report** Reference: **USEPA AP-42 Section 2.4 (1998)**	7. Emissions Method Code: **3**
8. Calculation of Emissions (limit to 600 characters): **See attached report and associated attachments.**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): [a] **Potential emission reported conservatively represents HAPS emissions at the end of 3 years of the OHD facility operation. It is noted that the gas extraction and control system with flare(s) will be installed in the third year of operation for waste disposal rate of 4,000 tons/day.** [b] **For OHD MSW landfill, emission unit is same as the facility.**	

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **10.3 tons/year**	4. Equivalent Allowable Emissions: lb/hour **10.3** tons/year
5. Method of Compliance (limit to 60 characters):	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **See attached report and associated attachments.**	

Emissions Unit Information Section 1 of 1

Pollutant Detail Information Page 7 of 10

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units -
Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **H106**	2. Total Percent Efficiency of Control: **98.0**
3. Potential Emissions: lb/hour **2.4** [a]	4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: **See attached report** Reference: **USEPA AP-42 Section 2.4 (1998)**	7. Emissions Method Code: **3**
8. Calculation of Emissions (limit to 600 characters): **See attached report and associated attachments.**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): [a] **Potential emission reported represents H106 (HCl) emissions at the end of 5 years. It is noted that the gas extraction and control system with flare(s) will be installed in the third year of the OHD facility operation for waste disposal rate of 4,000 tons/day.**	

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **2.4 tons/year**	4. Equivalent Allowable Emissions: lb/hour **2.4** tons/year
5. Method of Compliance (limit to 60 characters):	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **See attached report and associated attachments.**	

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **H114 (Mercury)**	2. Total Percent Efficiency of Control:
3. Potential Emissions: lb/hour **4.9×10^{-5} (a)**	4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: **See attached report** Reference: **USEPA AP-42 Section 2.4 (1998)**	7. Emissions Method Code: **3**
8. Calculation of Emissions (limit to 600 characters): **See attached report and associated attachments.**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **(a) Potential emission reported represents H114 (Hg) emissions at the end of 3 years of the OHD facility operation.**	

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **4.9×10^{-5} tons/year**	4. Equivalent Allowable Emissions: lb/hour **4.9×10^{-5}** tons/year
5. Method of Compliance (limit to 60 characters):	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **See attached report and associated attachments.**	

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **NOX (Nitrogen Dioxide)**	2. Total Percent Efficiency of Control:
3. Potential Emissions: lb/hour **10.1**[(a)] tons/year	4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [X] 1[(b)] [ ] 2 [ ] 3 to tons/year	
6. Emission Factor: **See attached report** Reference: **USEPA AP-42 Section 2.4 (1998)**	7. Emissions Method Code: **3**
8. Calculation of Emissions (limit to 600 characters): **See attached report and associated attachments.**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): [(a)] **Potential emission reported represents NOX (NO_2) emissions at the end of 5 years. It is noted that the gas extraction and control system with flare(s) will be installed in the third year of the OHD facility operation for waste disposal rate of 4,000 tons/day.** [(b)] **For OHD MSW landfill, emission unit is same as the facility.**	

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **10.1 tons/year**	4. Equivalent Allowable Emissions: lb/hour **10.1** tons/year
5. Method of Compliance (limit to 60 characters):	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **See attached report and associated attachments.**	

Emissions Unit Information Section 1 of 1

Pollutant Detail Information Page 10 of 10

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **PM**	2. Total Percent Efficiency of Control:
3. Potential Emissions: lb/hour **4.2**[(a)] tons/year	4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [X] 1[(b)] [ ] 2 [ ] 3 to tons/year	
6. Emission Factor: **See attached report** Reference: **USEPA AP-42 Section 2.4 (1998)**	7. Emissions Method Code: **3**
8. Calculation of Emissions (limit to 600 characters): **See attached report and associated attachments.**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): [(a)] **Potential emission reported represents PM emissions at the end of 5 years. It is noted that the gas extraction and control system with flare(s) will be installed in the third year of the OHD facility operation for waste disposal rate of 4,000 tons/day.** [(b)] **Less than the reporting threshold of 5 tons/year.**	

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **4.2 tons/year**	4. Equivalent Allowable Emissions: lb/hour **4.2** tons/year
5. Method of Compliance (limit to 60 characters):	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **See attached report and associated attachments.**	

H. VISIBLE EMISSIONS INFORMATION
(Only Regulated Emissions Units Subject to a VE Limitation)

Visible Emissions Limitation: Visible Emissions Limitation 1 of 1

1. Visible Emissions Subtype: **VE00**[a]	2. Basis for Allowable Opacity: [X] Rule[a] [ ] Other
3. Requested Allowable Opacity: **0 %**[a] Normal Conditions: **0 %** Exceptional Conditions: **100 %** Maximum Period of Excess Opacity Allowed: **5 minutes during any 2 consecutive hours.**	
4. Method of Compliance: **40 CFR 60, Appendix A-7, Method 22 as specified in 40 CFR 60.18 (f)(1).**	
5. Visible Emissions Comment (limit to 200 characters): [a] **According to 40 CFR 60.18 (c)(1), flares shall be designed and operated with no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.**	

I. CONTINUOUS MONITOR INFORMATION
(Only Regulated Emissions Units Subject to Continuous Monitoring)

Continuous Monitoring System: Continuous Monitor _____ of _____

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	[ ] Rule [ ] Other
4. Monitor Information: Manufacturer: Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters):	

J. EMISSIONS UNIT SUPPLEMENTAL INFORMATION
(Regulated Emissions Units Only)

Supplemental Requirements

1. Process Flow Diagram [ ] Attached, Document ID:_____ [**X**] Not Applicable [ ] Waiver Requested
2. Fuel Analysis or Specification [ ] Attached, Document ID:_____ [**X**] Not Applicable [ ] Waiver Requested
3. Detailed Description of Control Equipment **See note below** [ ] Attached, Document ID:_____ [ ] Not Applicable [ ] Waiver Requested
4. Description of Stack Sampling Facilities [ ] Attached, Document ID:_____ [**X**] Not Applicable [ ] Waiver Requested
5. Compliance Test Report [ ] Attached, Document ID:_____ [ ] Previously submitted, Date:_____ [**X**] Not Applicable
6. Procedures for Startup and Shutdown [ ] Attached, Document ID:_____ [**X**] Not Applicable [ ] Waiver Requested
7. Operation and Maintenance Plan **See note below** [ ] Attached, Document ID:_____ [ ] Not Applicable [ ] Waiver Requested
8. Supplemental Information for Construction Permit Application [ ] Attached, Document ID:_____ [ ] Not Applicable **BACT**
9. Other Information Required by Rule or Statute [ ] Attached, Document ID:_____ [**X**] Not Applicable
10. Supplemental Requirements Comment: **Information will be provided in the Title V Air Operation Permit, which will be submitted to FDEP within 180 days of start of waste disposal at the OHD facility.**

Additional Supplemental Requirements for Title V Air Operation Permit Applications

11. Alternative Methods of Operation
[ ] Attached, Document ID:_____ [ ] Not Applicable

12. Alternative Modes of Operation (Emissions Trading)
[ ] Attached, Document ID:_____ [ ] Not Applicable

13. Identification of Additional Applicable Requirements
[ ] Attached, Document ID:_____ [ ] Not Applicable

14. Compliance Assurance Monitoring Plan
[ ] Attached, Document ID:_____ [ ] Not Applicable

15. Acid Rain Part Application (Hard-copy Required)

[ ] Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))
Attached, Document ID:_____

[ ] Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)
Attached, Document ID:_____

[ ] New Unit Exemption (Form No. 62-210.900(1)(a)2.)
Attached, Document ID:_____

[ ] Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)
Attached, Document ID:_____

[ ] Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.)
Attached, Document ID:_____

[ ] Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.)
Attached, Document ID:_____

[ ] Not Applicable

AIR CONSTRUCTION PERMIT – TITLE V SOURCE
OAK HAMMOCK DISPOSAL FACILITY
OSCEOLA COUNTY, FLORIDA

INTRODUCTION

A solid waste construction and operation permit was issued for the Oak Hammock Disposal (OHD) facility in Osceola County, Florida on 18 October 2002. The permit was issued to Omni Waste of Osceola County, LLC (Omni) by the Florida Department of Environmental Protection (FDEP) and is valid for a period of 5 years. Specific Condition No. 55 of this solid waste permit addresses the requirements for "*Prevention of Significant Deterioration (PSD)*".

To satisfy the PSD requirements addressed in the Specific Condition No. 55 of the above referenced permit, Omni is hereby submitting an Air Construction Permit Application - Title V Source not requiring a PSD Pre-construction Review. This report supports the Air Construction Permit Application to which it is attached. It establishes the inapplicability of the PSD pre-construction review requirements of Chapter 62-212, Florida Administrative Code (F.A.C.), to the Phase 1 development of the OHD facility. Phase 1 includes the first 5 years of the OHD facility construction and operation, for which the solid waste permit was issued by FDEP.

The remainder of this report presents: (i) a project background; (ii) applicable regulations; (iii) approach used to establish the inapplicability of the PSD review requirements; (iv) methodology, analyses, and assumptions used for estimating the emissions of various pollutants; and (v) the applicability/inapplicability of the PSD pre-construction review requirements.

PROJECT BACKGROUND

The OHD site comprises a total of 2178.8 acres and is located in eastern Osceola County in Florida, west of highway U.S. 441, approximately 6.5 miles south of Holopaw. The OHD site is located in Sections 11, 13, and 14 of Township 28 South, Range 32 East, and Sections 17 and 18 of Township 28 South, Range 33 East, Osceola County, Florida.

The complete build-out of the OHD facility includes 21 landfill cells with a total footprint of approximately 264 acres. The center of the 264-acre landfill is located at latitude 28° 03' 32" and longitude 81° 05' 46" or a Northing of 1354222 and an Easting of 625229 in the Florida State Plane Coordinate System. The 5-year solid waste construction and operation permit was issued for the Phase 1 development of the OHD facility. Phase

1 includes 4 landfill cells with a total footprint of approximately 53 acres and ancillary facilities supporting the operation of the landfill. The center of Phase 1 development is located at latitude 28° 03' 56.9" and longitude 81° 05' 51.9" or a Northing of 1356639 and an Easting of 624641. The site location, the 264-acre landfill footprint, and the Phase 1 development of the OHD facility are presented in Figure 1 of this report.

The solid waste permit application to construct and operate the OHD Class I municipal solid waste (MSW) landfill was submitted to FDEP in May 2002. Based on the permit drawings presented in this permit application, the estimated volume of waste and initial cover soils that can be disposed in the OHD landfill after complete build-out is approximately 23.7 million cubic yards. This landfill capacity is expected to provide airspace for a period of approximately 30 years based on an average waste disposal rate of 474,000 tons/year (approximately 1,657 tons/day) used in the solid waste permit application. The 30-year life of the OHD facility was computed assuming an average in-place unit weight of 1,500 pounds/cubic yard, 20 percent of the available volume occupied by the initial cover, and landfill operations for 5.5 days per week or 286 equivalent full days per year. Phase 1 development of the OHD facility is expected to provide airspace for a period greater than 5 years based on the waste disposal rate of 474,000 tons/year (1,657 tons/day).

As discussed in Section 5 of the solid waste permit application, entitled "*Landfill Gas Management*", the gas extraction and control system (GECS) will be installed in conjunction with the construction of the final cover system. The GECS will consist of vertical gas extraction wells, gas transmission pipes, and, ultimately, 4 flare stations as indicated on Sheet 29 of 50 of the permit drawings. The installation of 3-ft diameter vertical gas extraction wells at a spacing of approximately 300 feet will begin when the total quantity of disposed waste reaches approximately 2.75 million tons, in compliance with 40 CFR Part 60, Subpart WWW.

APPLICABLE REGULATIONS

The regulations related to the PSD pre-construction requirements of Chapter 62-212, F.A.C., are listed below. The applicability to the PSD requirements of each of the following regulations is also briefly discussed below.

Chapter 62-4, Permits
Chapter 62-204, Air Pollution Control – General Provisions
Chapter 62-210, Stationary Sources – General Requirements
Chapter 62-212, Stationary Sources – Preconstruction Review
Chapter 62-296, Stationary Sources – Emission Standards

40 CFR 60, Subpart WWW, Standards of Performance for MSW Landfills
40 CFR 60.18, General Control Device Requirements

Chapter 62-4, F.A.C., sets forth the procedures and requirements for obtaining permits from FDEP. Chapter 62-4, F.A.C., lists the permit processing fee for Air Construction Permit Application - Title V Source not requiring a PSD Pre-construction Review in Rule 62-4.050(4)(a)2., F.A.C.

Chapter 62-204, F.A.C., adopts and incorporates the federal air pollution control regulations by reference. Chapter 62-204, F.A.C., adopts and incorporates 40 CFR 60 Subpart WWW in Rule 62-204.800(7)(b)72, F.A.C.

Chapter 62-210, F.A.C., provides the criteria for determining the need to obtain an air construction or operation permit. Rule 62-210.200, F.A.C., includes definitions of words and phrases used in this chapter and in Chapters 62-212 and 62-296, F.A.C.

Chapter 62-212, F.A.C., establishes the preconstruction review requirements for proposed new emissions units or facilities and their modifications. The PSD preconstruction review requirements for new emissions units or facilities are included in Rule 62-212.400(2)(d)1. and 2.

Chapter 62-296, F.A.C., establishes the emission limiting standards and compliance requirements for stationary sources of air pollution. With respect to MSW landfills, Rule 62-296.100, F.A.C., states that standards for any "new" facility or emissions unit shall be the federal standards of performance for new stationary sources adopted by reference in Rule 62-204.800(7), F.A.C.

40 CFR 60, Subpart WWW establishes the standards for air emissions (with respect to operation, test methods and procedure, compliance, monitoring, reporting, and record keeping) for MSW landfills constructed after 30 May 1991. The 40 CFR 60.754(c) in Subpart WWW recommends using USEPA AP-42 for estimating MSW landfill emissions for PSD purposes.

40 CFR 60.18 contains the requirements for control devices used to comply with applicable rules in 40 CFR 60 and 61. 40 CFR 60.18 (b) through (f) details the design, operation, monitoring, and compliance requirements for flares used as control devices.

APPROACH

A maximum waste disposal rate of 4,000 tons/day was conservatively assumed for the OHD facility for the purpose of this Air Construction Permit Application. This rate

of waste disposal is over twice the rate anticipated for Phase 1 development of the OHD facility. However, since the rate of waste disposal determines the gas emissions, a highly conservative rate has been assumed for this Air Construction Permit Application. The intent of assuming a highly conservative rate is to assure that, even if disposal rates double at the landfill, this permit will continue to be applicable to Phase 1 and a modification will not be required until Phase 2 is permitted.

It will be shown that even for this highly conservative waste disposal rate of 4,000 tons/day, the pollutants emitted in the first 5 years of operation of the OHD facility (Phase 1 development) are less than 190 tons/year. Therefore, Phase 1 development of the OHD facility is not subject to the PSD pre-construction review requirements in accordance with Rule 62-212.400(2)(d)2.a., F.A.C. It will also be shown that the OHD facility is a *major facility* during the first 5 years of operation, in accordance with Rule 62-210.200(157), F.A.C., only because of the carbon monoxide emissions from the flare(s), which will be used as control device in the gas extraction system.

The operating life of the OHD facility at a waste disposal rate of 4,000 tons/day is 12.4 years. The mass emission rates of the air pollutants/landfill gas (LFG) constituents over this 12.4-year operating life are presented and discussed in the following sections. For the waste disposal rate of 4,000 tons/day, the proposed 264-acre landfill, with a total capacity of approximately 23.7 million cubic yards, is calculated to provide airspace for a period of about 12.4 years by assuming an average in-place unit weight of 1,500 pounds/cubic yard, 20 percent of the available volume occupied by the initial cover, and landfill operations for 5.5 days per week or 286 equivalent full days per year. Further, for the waste disposal rate of 4,000 tons/day, the GECS will be installed in the 3rd year of the landfill operation when the total quantity of disposed waste reaches approximately 2.75 million tons, in compliance with 40 CFR Part 60, Subpart WWW.

It is noted that the conservatively assumed waste disposal rate of 4,000 tons/day is about 2.5 times the expected average annual waste disposal rate of 474,000 tons/year (1,657 tons/day), which was used in the engineering analyses and design presented in the solid waste permit application. To be consistent with the solid waste permit application, mass emission rates of the air pollutants/LFG constituents were also computed for average annual waste disposal rate of 474,000 tons/year (1,657 tons/day). These emission rates are presented and discussed in Attachment 1 of this report. It is noted that for the average annual waste disposal rate of 474,000 tons/year (1,657 tons/day): (i) the proposed 264-acre landfill is expected to provide airspace for a period of approximately 30 years and (ii) the GECS installation will begin in the 6th year of the landfill operation when the total quantity of disposed waste reaches approximately 2.75 million tons, in compliance with 40 CFR Part 60, Subpart WWW.

AIR POLLUTANTS/LANDFILL GAS CONSTITUENTS

The major air pollutants are listed in Chapter 62-212, F.A.C., Table 212.400-2 (Specific Authority 403.061 Florida Statutes (FS)). The LFG constituents for MSW landfills are listed in USEPA AP-42 Section 2.4 (1998), entitled "*Emission Factor Documentation for Municipal Solid Waste Landfills*". It is noted that 40 CFR 60.754(c) in Subpart WWW recommends using USEPA AP-42 for estimating MSW landfill emissions for PSD purposes.

The air pollutants/LFG constituents include carbon monoxide (CO), total reduced sulfur compounds (TRS measured as sulfur, S, or sulfur dioxide, SO_2), non-methane organic compounds (NMOC), total volatile organic compounds (VOC), total hazardous air pollutants (HAPS), chlorides (as Cl^- or HCl), and mercury (Hg or H114). The mass emission rates of these air pollutants/LFG constituents were computed for the waste disposal rate of 4,000 tons/day, using the methodology outlined in USEPA AP-42, and are presented in Table 1 and in Figures 2 through 7, respectively, included with this report. The mass emission rates of Hg are included in the table but are not presented in the figures since Hg emissions were less than 0.35 pounds per year for the life of the OHD facility.

The OHD facility after complete build-out will use up to 4 flares as control devices in the proposed GECS. However, it is expected that no more than 2 flares will be installed during Phase 1. As a result of the installation of the flare(s), nitrogen dioxide (NOX as NO_2) and particulate matter (PM), which are also major air pollutants, will also be emitted at the OHD facility. The mass emission rates of these two air pollutants from the flare(s) were also computed using the methodology outlined in USEPA AP-42 and are presented in Figures 8 and 9, respectively.

The USEPA AP-42 methodology used in computing the mass emission rates of the LFG constituents and the air pollutants from the flare(s) is detailed in the calculation package included as Attachment 2 of this report. Some of the results presented in Figures 2 through 7 were verified with the uncontrolled mass emission rates obtained using USEPA software entitled "*Landfill Gas Emissions Model (LandGEM)*", version 2.01. The uncontrolled mass emission rates computed using this software are included in Attachment 3 of this report.

Figures 2 through 9 present uncontrolled and controlled mass emission rates of the air pollutants/LFG constituents over the anticipated 12.4-year operating life of the OHD facility assuming a waste disposal rate of 4,000 tons/day. The *uncontrolled emissions* represent mass emission rates without the GECS. The *controlled emissions* are mass emission rates assuming that the proposed GECS is installed beginning in the 3rd year of

the landfill operation. The controlled mass emission rates represent the sum of the potential emissions and the quantifiable fugitive emissions from the OHD facility in accordance with Rule 62-212.400(2)(f), F.A.C.

As discussed in Attachment 2, the controlled emission rates presented in the figures assume that the collection efficiency of the GECS is 75 percent, i.e., only 75 percent of the gas generated by the landfill is collected by the GECS and flared whereas the remaining 25 percent escapes as uncontrolled emissions. It is noted that 75 percent collection efficiency is the recommended average collection efficiency for landfill GECS by USEPA AP-42. The controlled emission rates presented in the figures also incorporate control device efficiency (i.e., flare(s) efficiency), ranging from 98.0 to 99.7 percent, as recommended by USEPA AP-42.

As expected, the controlled emission rates of the regulated air pollutants/LFG constituents are less than the uncontrolled emission rates except for CO. The controlled emission rates for CO are higher than the uncontrolled emission rates because of the CO generated by the flares (which will be used as control devices in the GECS at the OHD facility). It is noted that NO_2 and PM are not LFG constituents and are generated only by the flare(s). Therefore, only controlled emission rates are presented for NO_2 and PM, which will be generated after installation of the GECS beginning in the 3rd year of the landfill operation assuming a waste disposal rate of 4,000 tons/day.

The uncontrolled and controlled emission rates presented in Table 1 represent maximum mass emission rates for the first 5 years of operation and at the end of operating life of the OHD facility (12.4 years). It is noted that for the first 5 years of operation, the uncontrolled emission rates presented in Table 1 are conservatively reported at the end of the 3rd year of operation even though the installation of the GECS will begin in the 3rd year of the landfill operation.

APPLICABILITY OF PSD REQUIREMENTS

First 5 Years of Operation – Phase 1 Development

As noted in Table 1, during the first 5 years of the OHD facility operation, the maximum uncontrolled emission rates of the air pollutants/LFG constituents are less than 18 tons per year except for the emission rate of NMOC of about 49 tons per year. The maximum controlled emission rates of the air pollutants/LFG constituents are about 20 tons per year except for the emission rate of CO of about 188 tons per year. In essence, the maximum uncontrolled or controlled emission rate of any applicable regulated air pollutant is less than 250 tons per year.

The controlled emission rate of CO exceeds 250 tons per year only at the end of the 7th year of OHD facility operation (see Figure 2). Therefore, for the first 5 years of operation (corresponding to the duration of the solid waste construction and operation permit issued by FDEP), the OHD facility is not subject to the PSD pre-construction review requirements in accordance with Rule 62-212.400(2)(d)2.a., F.A.C.

As noted in Figure 2, the uncontrolled emission rate of CO (assuming no flares) at the end of the 5th year of operation is only about 6 tons per year, i.e., practically all CO is generated by the flares installed as part of the GECS. In summary, except for the emission rate of CO from the flares, the OHD facility is a *minor facility* (in accordance with Rule 62-210.200(165), F.A.C.) during the first 5 years of operation.

12.4 Years – End of Operating Life

As noted in Table 1, at the end of operating life (12.4 years) of the OHD facility for the highly conservative waste disposal rate of 4,000 tons/day, the maximum controlled emission rates of the applicable regulated air pollutants are less than 44 tons per year except for the emission rate of CO of about 406 tons per year. It is noted that the maximum mass emission rate of CO from the landfill without the GECS (i.e., uncontrolled emission) is about 13 tons per year, i.e., practically all CO is generated by the flares in the controlled situation. In essence, except for the emission rate of CO from the flares, the OHD facility is a *minor facility* throughout its 12.4-year operating life even for the assumed highly conservative waste disposal rate of 4,000 tons/day.

The emission rate of CO from the flare was computed using the default emission factors recommended in USEPA AP-42. The GECS installation is expected to begin in the 3rd year of the landfill operation and will incorporate flare(s) as the control device. Prior to future phased developments of the OHD facility, the emission rate of CO from the flare(s) will be analyzed. The results of the analysis will be used to re-evaluate CO emission rates for the future developments and air construction permits for the OHD facility.

CONCLUSION

A highly conservative waste disposal rate of 4,000 tons/day was assumed for the OHD facility for the purpose of this Air Construction Permit Application. This rate of waste disposal is over twice the rate anticipated for Phase 1 development of the OHD facility. The intent of assuming a highly conservative rate is to assure that, even if disposal rates double at the landfill, this permit will continue to be applicable to Phase 1 and a modification will not be required until Phase 2 is permitted.

Even for this highly conservative waste disposal rate of 4,000 tons/day, the mass emission rates of the air pollutants/LFG constituents in the first 5 years of operation of the OHD facility (Phase 1 development) are less than 190 tons/year. Therefore, Phase 1 development of the OHD facility is not subject to the PSD pre-construction review requirements. It is further noted that except for the emission rate of CO from the flares, the OHD facility is a *minor facility* throughout its operating life even for the assumed highly conservative waste disposal rate of 4,000 tons/day. CO is emitted as a collateral pollutant from the flares that will be installed solely for the purpose of reducing the NMOC emissions as required by 40 CFR 60, Subpart WWW.

Table 1

MASS EMISSION RATES FOR REGULATED AIR POLLUTANTS AND LANDFILL GAS CONSTITUENTS (WASTE DISPOSAL RATE = 4,000 tons/day)

Air Pollutant/LFG Constituent [1]	Maximum Mass Emission Rates (tons/yr)			
	Phase 1 Development		End of Operating Life	
	End of 3rd year Uncontrolled [2]	End of 5th year Controlled [3]	12.4 years Uncontrolled [2]	12.4 years Controlled [3]
Carbon Monoxide (CO)	3.8	188.1	13.1	405.8
Total Reduced Sulfur (TRS as S or SO_2) [4]	1.4	4.6	5.0	10.0
Non-Methane Organic Compounds (NMOC)	49.4	20.3	170.7	43.7
Total Volatile Organic Compounds (VOC)	17.6	7.2	60.8	15.5
Any Individual HAP (H001 through H189) [5]	3.5	1.4	12.1	3.0
Total Hazardous Air Pollutants (HAPS)	10.3	4.2	35.5	9.1
Chlorides (as Cl^- or HCL) [6]	1.4	2.4	5.0	5.1
Mercury (Hg or H114)	4.9×10^{-5}	--	1.7×10^{-4}	--
Nitrogen Dioxide (NOX as NO_2)	NA [7]	10.1	NA [7]	21.8
Particulate Matter (PM)	NA [7]	4.2	NA [7]	9.1

Notes:

1 Per USEPA AP-42 Section 2.4 (1998).

2 Assuming no gas extraction and control system (GECS) is installed.

3 Assuming the proposed GECS is installed beginning in the 3rd year of operation. See text for other assumptions.

4 Uncontrolled and controlled emissions are reported as S and SO_2, respectively.

5 Maximum emissions for any individual HAP. Emissions reported are for Toluene (H169).

6 Uncontrolled and controlled emissions are reported as Cl^- and HCL (H106), respectively.

7 Not Applicable. NO_2 and PM are not landfill gas constituents and are generated only by the flare(s).

LAYOUT OF OAK HAMMOCK DISPOSAL FACILITY

LEGEND

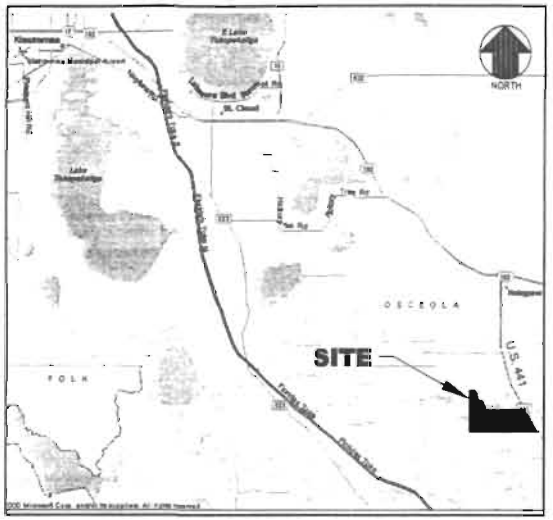
- PROPERTY BOUNDARY
- WETLAND
- (2) LANDFILL CELL NUMBER
- STORMWATER MANAGEMENT AREA
- BORROW AREA BOUNDARY
- CONSERVATION AREA

PROPERTY DESCRIPTION

Sections 13 and 14 and portion of Section 11 west of Bull Creek in Township 28 South, Range 32 East.

Portions of Sections 17 and 18 west of Highway 441 (State Road No. 15) in Township 28 South, Range 33 East.

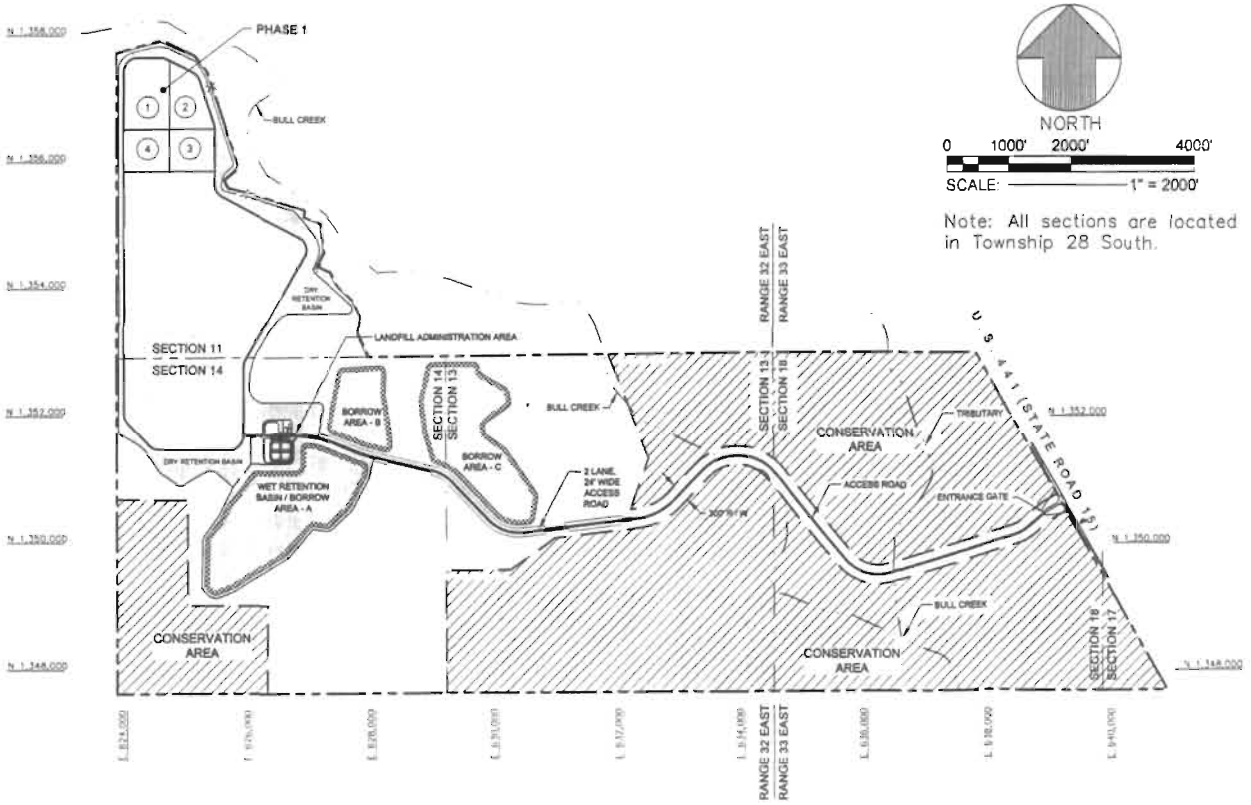
Entire site lies in Osceola County, Florida.



AREA MAP

0 1 2 3 6

SCALE: 1" = 6 MILES



NORTH

0 1000' 2000' 4000'

SCALE: 1" = 2000'

Note: All sections are located in Township 28 South.

omni Waste of Osceola County LLC

OAK HAMMOCK DISPOSAL FACILITY
OSCEOLA COUNTY, FLORIDA

GeoSyntec Consultants
TAMPA, FLORIDA

PROJECT NO.	FW0400	FIGURE NO.	1
DATE.	29 JAN 03	FILE NO.	0400F101

Figure 2

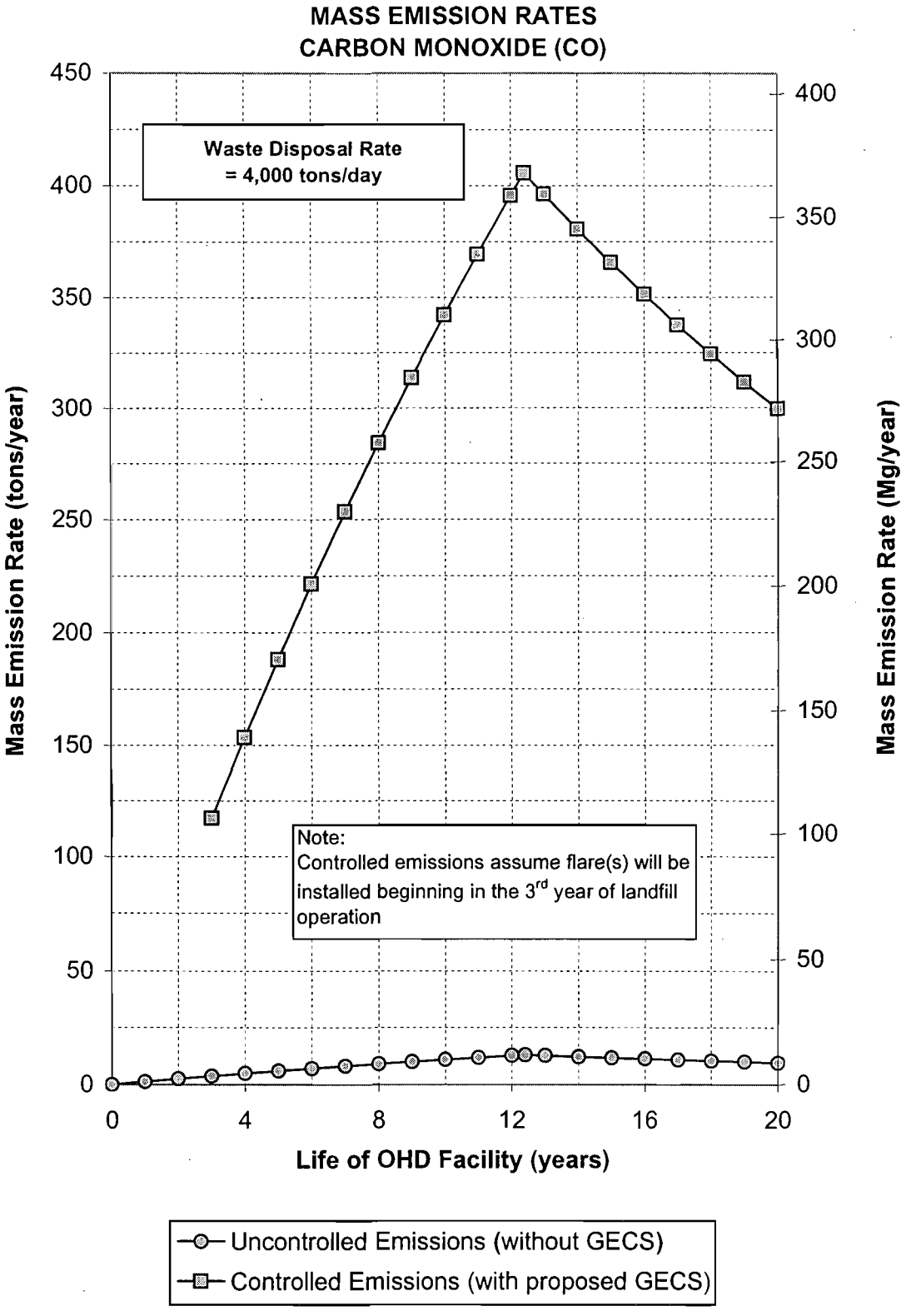

MASS EMISSION RATES
CARBON MONOXIDE (CO)
Waste Disposal Rate
= 4,000 tons/day
Note:
Controlled emissions assume flare(s) will be installed beginning in the 3rd year of landfill operation
Mass Emission Rate (tons/year)
Mass Emission Rate (Mg/year)
Life of OHD Facility (years)
0
50
100
150
200
250
300
350
400
450
0
4
8
12
16
20
Uncontrolled Emissions (without GECS)
Controlled Emissions (with proposed GECS)

Figure 3

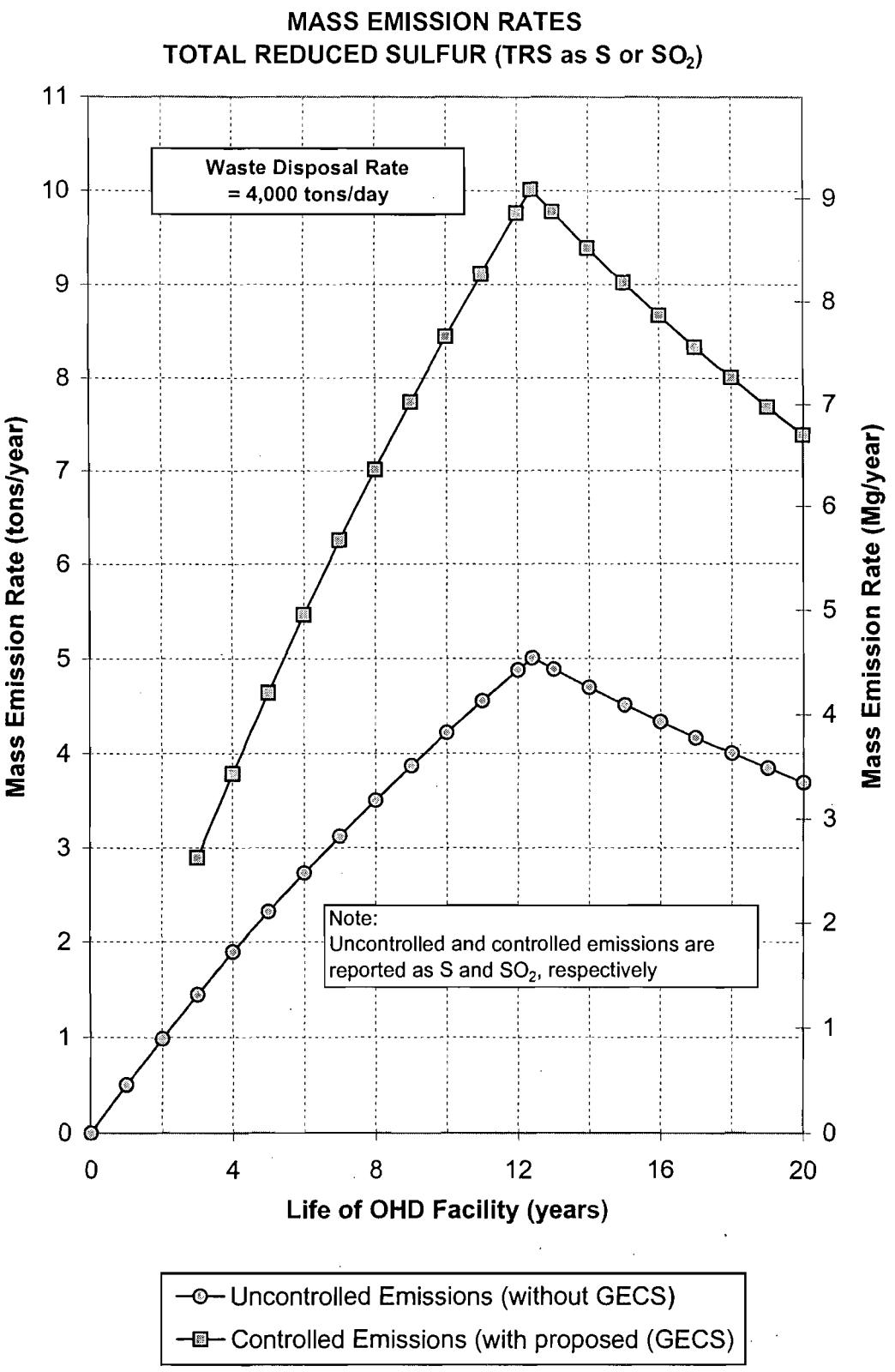

MASS EMISSION RATES
TOTAL REDUCED SULFUR (TRS as S or SO_2)
Waste Disposal Rate
= 4,000 tons/day
Note:
Uncontrolled and controlled emissions are reported as S and SO_2, respectively
Mass Emission Rate (tons/year)
Mass Emission Rate (Mg/year)
Life of OHD Facility (years)
0
4
8
12
16
20
0
1
2
3
4
5
6
7
8
9
10
11
Uncontrolled Emissions (without GECS)
Controlled Emissions (with proposed (GECS)

Figure 4

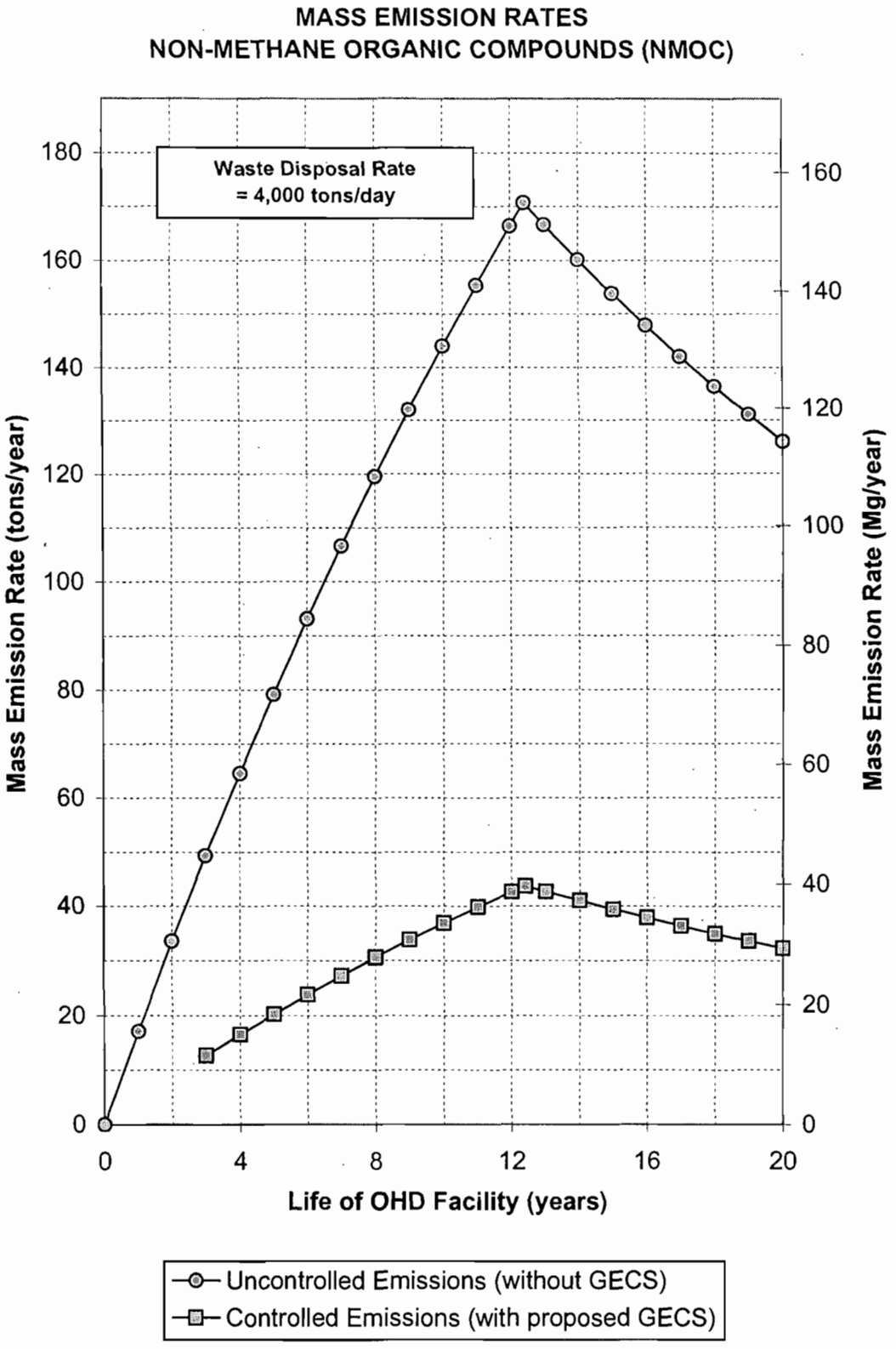

MASS EMISSION RATES
NON-METHANE ORGANIC COMPOUNDS (NMOC)
Waste Disposal Rate
= 4,000 tons/day
Mass Emission Rate (tons/year)
Mass Emission Rate (Mg/year)
Life of OHD Facility (years)
0
20
40
60
80
100
120
140
160
180
0
4
8
12
16
20
Uncontrolled Emissions (without GECS)
Controlled Emissions (with proposed GECS)

Figure 5

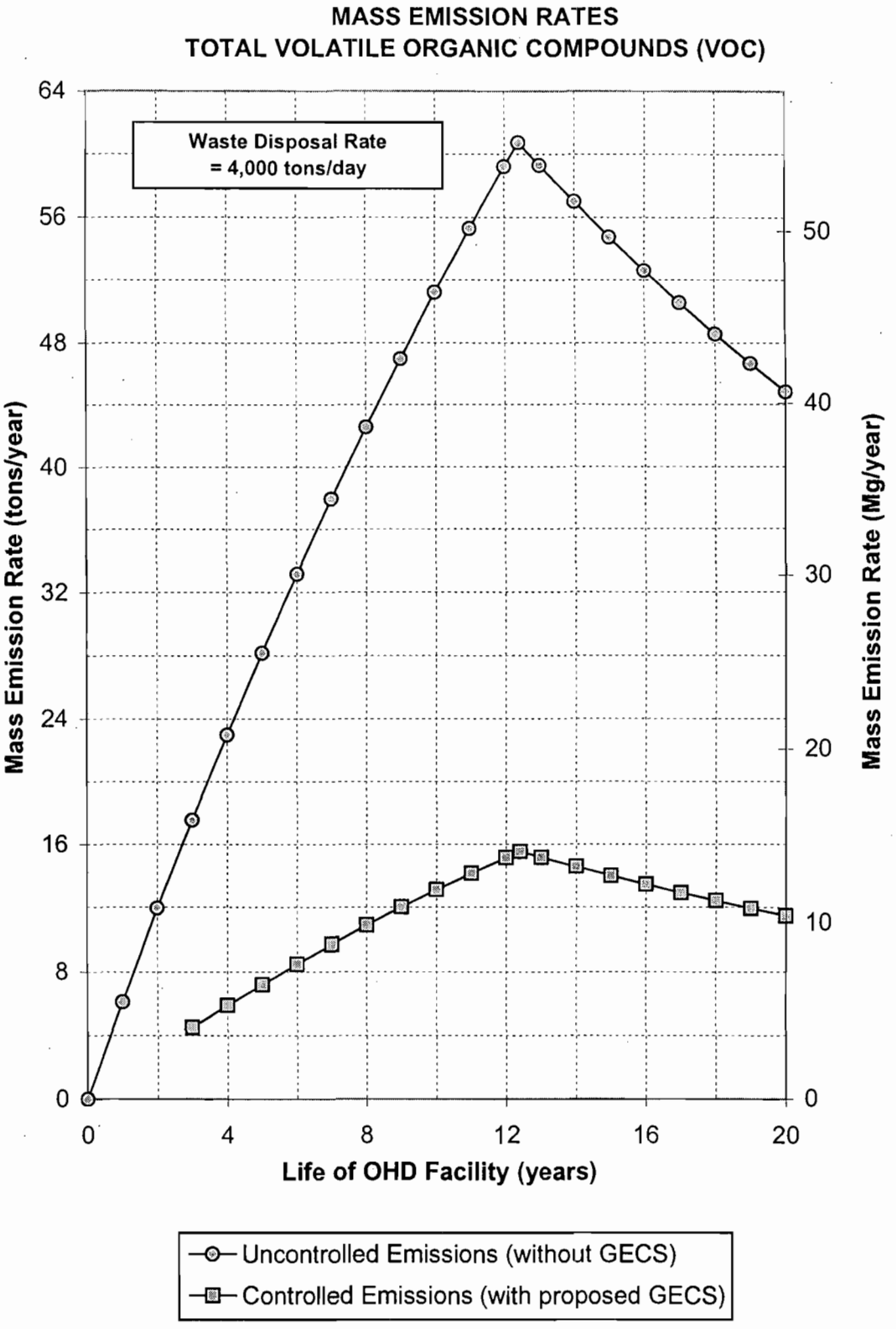

MASS EMISSION RATES
TOTAL VOLATILE ORGANIC COMPOUNDS (VOC)
Waste Disposal Rate
= 4,000 tons/day
Mass Emission Rate (tons/year)
Mass Emission Rate (Mg/year)
Life of OHD Facility (years)
0
8
16
24
32
40
48
56
64
0
10
20
30
40
50
0
4
8
12
16
20
Uncontrolled Emissions (without GECS)
Controlled Emissions (with proposed GECS)

Figure 6

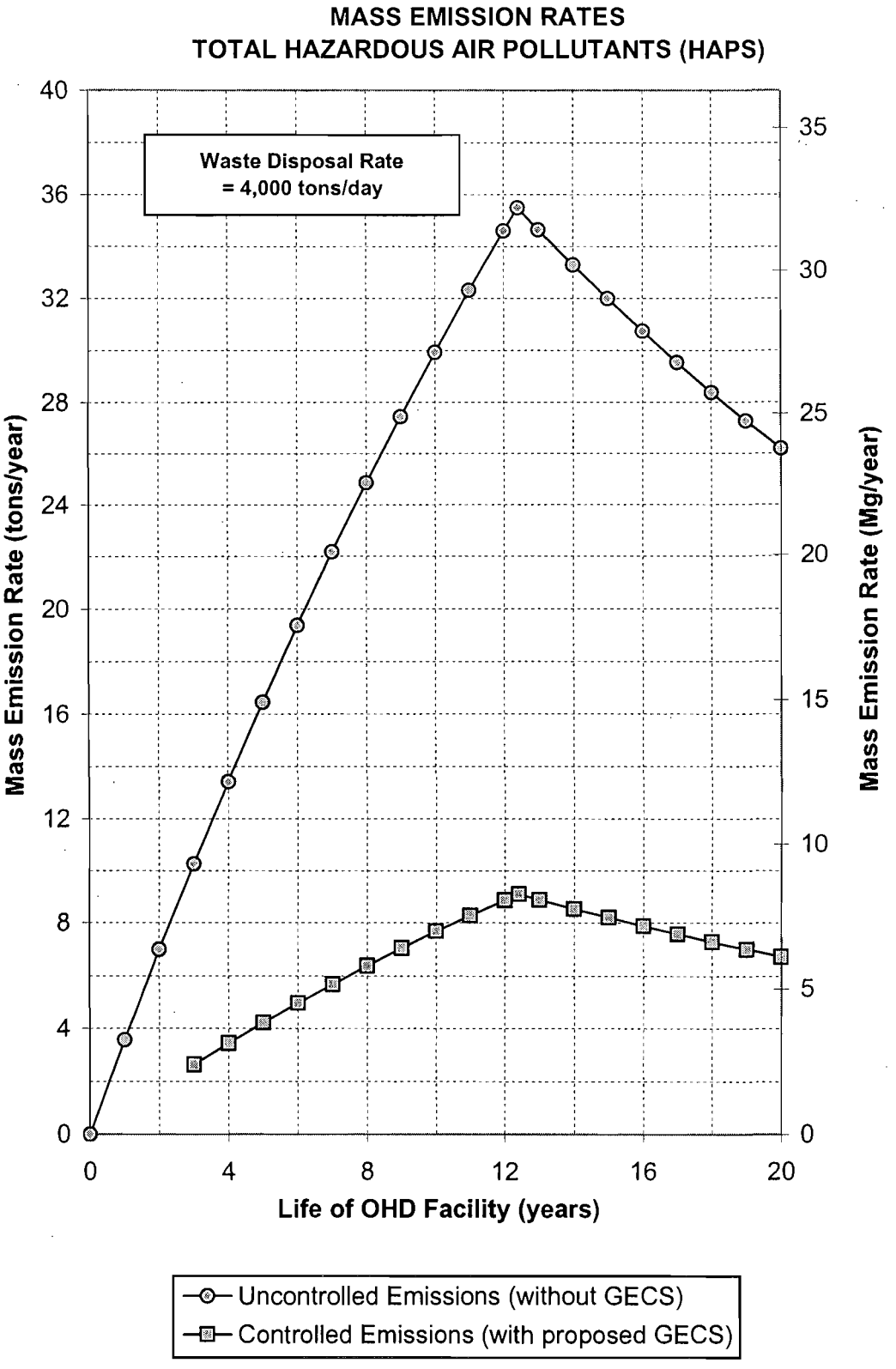

MASS EMISSION RATES
TOTAL HAZARDOUS AIR POLLUTANTS (HAPS)
Waste Disposal Rate
= 4,000 tons/day
Mass Emission Rate (tons/year)
Mass Emission Rate (Mg/year)
Life of OHD Facility (years)
0
4
8
12
16
20
24
28
32
36
40
5
10
15
25
30
35
Uncontrolled Emissions (without GECS)
Controlled Emissions (with proposed GECS)

Figure 7

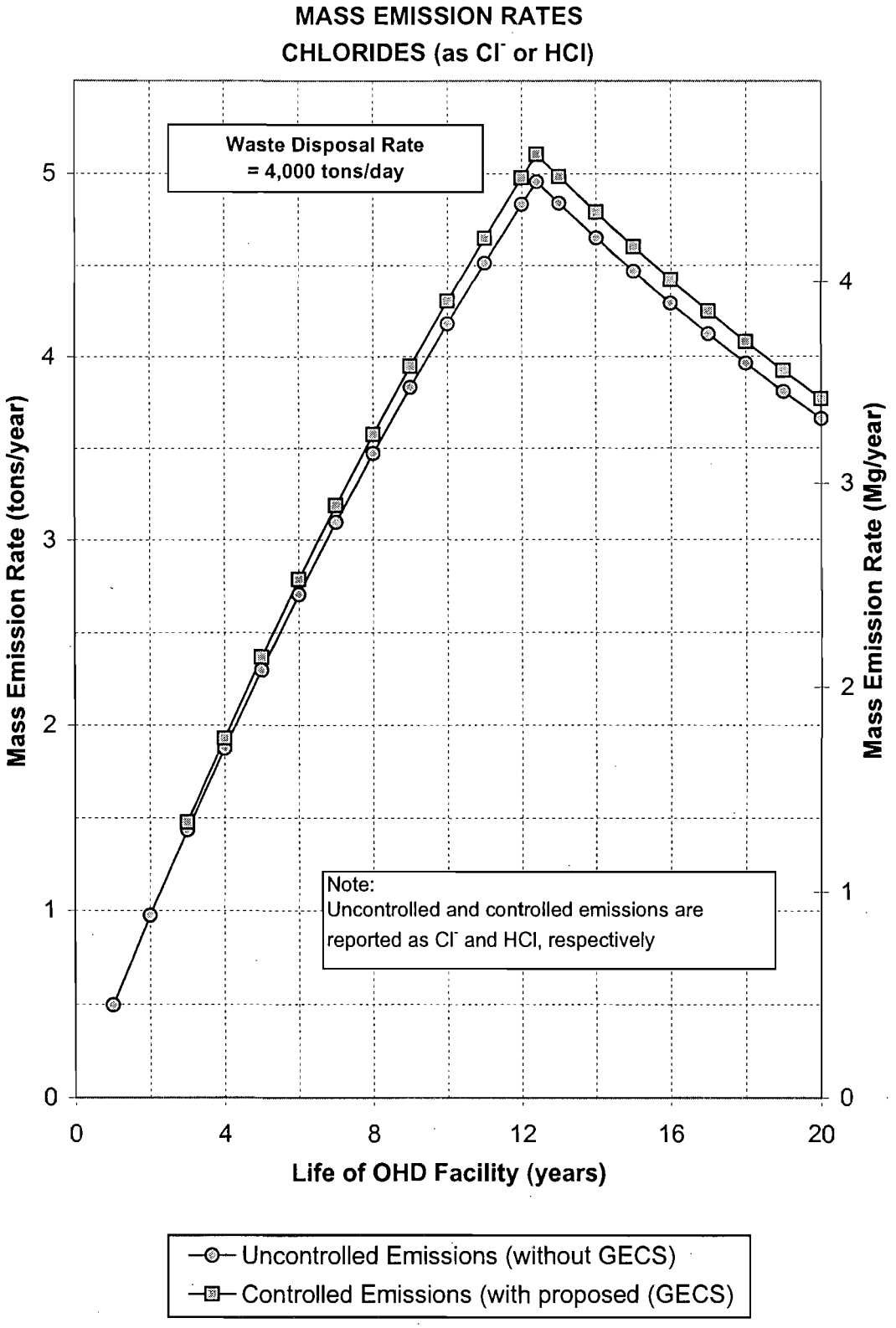

MASS EMISSION RATES
CHLORIDES (as Cl⁻ or HCl)
Waste Disposal Rate
= 4,000 tons/day
Note:
Uncontrolled and controlled emissions are reported as Cl⁻ and HCl, respectively
Mass Emission Rate (tons/year)
Mass Emission Rate (Mg/year)
Life of OHD Facility (years)
0
1
2
3
4
5
0
4
8
12
16
20
Uncontrolled Emissions (without GECS)
Controlled Emissions (with proposed (GECS)

Figure 8

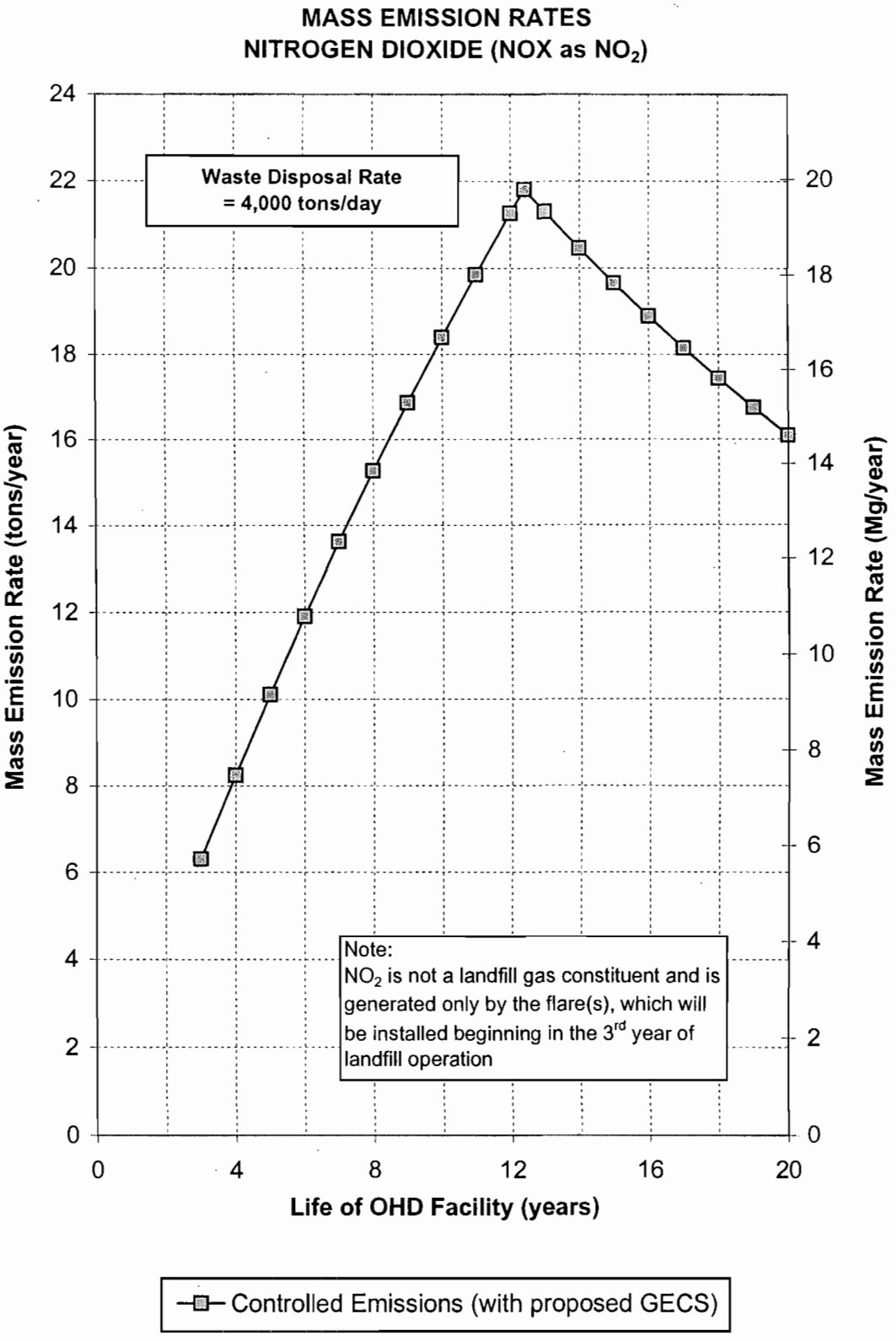
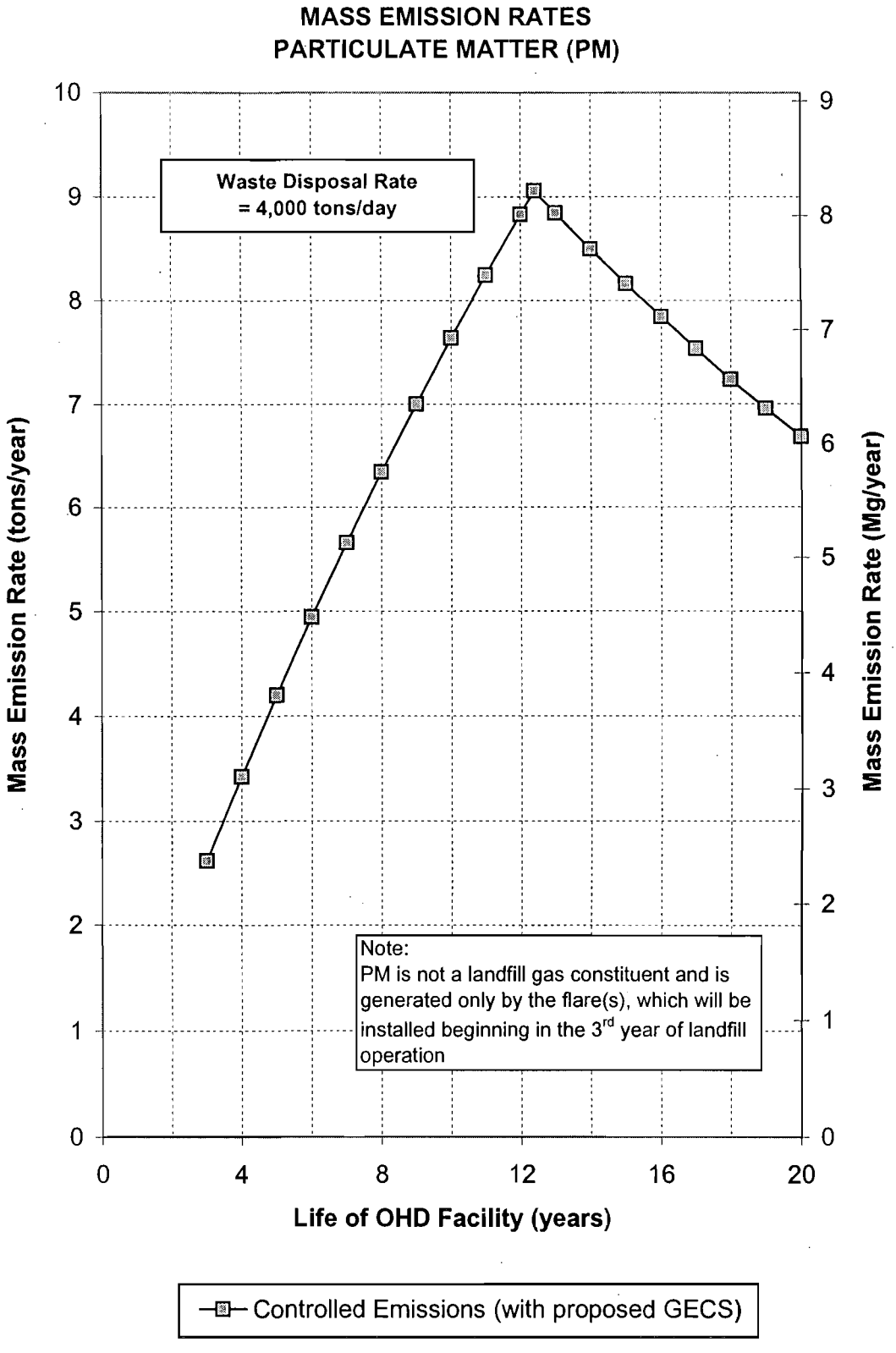

MASS EMISSION RATES
NITROGEN DIOXIDE (NOX as NO_2)
Waste Disposal Rate
= 4,000 tons/day
Note:
NO_2 is not a landfill gas constituent and is generated only by the flare(s), which will be installed beginning in the 3rd year of landfill operation
Mass Emission Rate (tons/year)
Mass Emission Rate (Mg/year)
Life of OHD Facility (years)
0
2
4
6
8
10
12
14
16
18
20
22
24
0
4
8
12
16
20
Controlled Emissions (with proposed GECS)

Figure 9


MASS EMISSION RATES
PARTICULATE MATTER (PM)
Waste Disposal Rate
= 4,000 tons/day
Note:
PM is not a landfill gas constituent and is generated only by the flare(s), which will be installed beginning in the 3rd year of landfill operation
Mass Emission Rate (tons/year)
Mass Emission Rate (Mg/year)
Life of OHD Facility (years)
0
1
2
3
4
5
6
7
8
9
10
0
4
8
12
16
20
Controlled Emissions (with proposed GECS)

Attachment 1

AIR POLLUTANTS/LFG CONSTITUENTS EMISSION FOR WASTE DISPOSAL RATE OF 474,000 TONS/YEAR

INTRODUCTION

A maximum waste disposal rate of 4,000 tons/day was conservatively assumed for the OHD facility for the purpose of this Air Construction Permit Application. The waste disposal rate of 4,000 tons/day is about 2.5 times the expected average annual waste disposal rate of 474,000 tons/year (approximately 1,657 tons/day), which was used in the engineering analyses and design presented in the solid waste permit application. To be consistent with the solid waste permit application, mass emission rates of the air pollutants/LFG constituents were also computed for average annual waste disposal rate of 474,000 tons/year (1,657 tons/day) and are presented in this attachment.

Based on the permit drawings presented in the solid waste permit application, the estimated volume of waste and initial cover soils that can be disposed in the OHD landfill after complete build-out is approximately 23.7 million cubic yards. For the average waste disposal rate of 474,000 tons/year (1,657 tons/day), an average in-place unit weight of 1,500 pounds/cubic yard, 20 percent of the available volume occupied by the initial cover, and landfill operations for 5.5 days per week or 286 equivalent full days per year, the proposed 264-acre landfill is expected to provide airspace for a period of approximately 30 years.

Phase 1 development of the OHD facility is expected to provide airspace for a period greater than 5 years for the waste disposal rate of 474,000 tons/year (1,657 tons/day). The installation of the initial final cover system and the GECS is expected to begin in the 6th year of the landfill operation for the waste disposal rate of 474,000 tons/year (1,657 tons/day), when the total quantity of disposed waste reaches approximately 2.75 million tons, in compliance with 40 CFR Part 60, Subpart WWW.

APPROACH

The mass emission rates of the applicable regulated air pollutants/LFG constituents for the expected 30-year operating life of the OHD facility are presented and discussed in the following sections. Based on the computed maximum mass emission rates, it will be shown that the OHD facility is not a *major facility* during the first 5 years of operation in accordance with Rule 62-210.200(157), F.A.C. Therefore, the OHD facility is a *minor facility* (in accordance with Rule 62-210.200(165), F.A.C.) for the duration of the construction and operation permit issued by FDEP. In accordance with Rule 62-212.400(2)(d)1, F.A.C., new minor facilities are not subject to the PSD pre-construction

review requirements. Therefore, for the Phase 1 development of the OHD facility, Omni is not subject to the PSD pre-construction review requirements of Chapter 62-212, F.A.C.

AIR POLLUTANTS/LANDFILL GAS CONSTITUENTS

As discussed earlier, the air pollutants/LFG constituents include CO, TRS measured as S or SO_2, NMOC, VOC, HAPS, chlorides as Cl^- or HCl, and Hg or H114. The mass emission rates of these air pollutants/LFG constituents were computed for the waste disposal rate of 474,000 tons/year (1,657 tons/day), using the methodology outlined in USEPA AP-42, and are presented in Table A1-1 and in Figures A1-1 through A1-6, respectively. The mass emission rates of Hg are included in the table but are not presented in the figures since Hg emissions were less than 0.3 pounds per year for the life of the OHD facility.

The OHD facility after complete build-out will use up to 4 flares as control devices in the proposed GECS. However, it is expected that no more than 2 flares will be installed during Phase 1. The mass emission rates of NOX (as NO_2) and PM from the flare(s) for the waste disposal rate of 474,000 tons/year (1,657 tons/day), were also computed using the methodology outlined in USEPA AP-42 and are presented in Figures A1-7 and A1-8, respectively.

The uncontrolled and controlled emission rates presented in Table A1-1 represent maximum mass emission rates for the first 5 years of operation and at the end of operating life of the OHD facility (30 years). Figures A1-1 through A1-8 present uncontrolled and controlled mass emission rates of the air pollutants/LFG constituents over the anticipated 30-year operating life of the OHD facility assuming a waste disposal rate of 474,000 tons/year (1,657 tons/day). The *uncontrolled emissions* represent mass emission rates without the GECS. The *controlled emissions* are mass emission rates assuming that the proposed GECS is installed beginning in the 6^{th} year of the landfill operation.

As discussed earlier, the controlled emission rates presented in the figures assume that the collection efficiency of the GECS is 75 percent, i.e., only 75 percent of the gas generated by the landfill is collected by the GECS and flared whereas the remaining 25 percent escapes as uncontrolled emissions. The controlled emission rates presented in the figures also incorporate flare(s) efficiency ranging from 98.0 to 99.7 percent, as recommended by USEPA AP-42.

As expected, the controlled emission rates of the air pollutants/LFG constituents are less than the uncontrolled emission rates except for CO. The controlled emission rates for CO are higher than the uncontrolled emission rates because of the CO generated by

the flare(s). It is noted that NO_2 and PM are not LFG constituents and are generated only by the flare(s). Therefore, only controlled emission rates are presented for NO_2 and PM, which will be generated after installation of the GECS beginning in the 6th year of the landfill operation for a waste disposal rate of 474,000 tons/year (1,657 tons/day).

APPLICABILITY OF PSD REQUIREMENTS

In accordance with Rule 62-210.200(157), F.A.C., a "*Major Facility*", is any facility that emits or has potential to emit:

(a) 5 tons per year of lead or lead compounds, measured as elemental lead;
(b) 30 tons per year or more of acrylonitrile; or
(c) 100 tons per year or more of any other air pollutant subject to regulation under Chapter 403, FS.

In accordance with USEPA AP-42, lead or lead compounds are not a constituent of the LFG or the emissions generated by a flare, which will be used as the control device in the GES at the OHD facility. As noted in Table A1-1, the maximum mass emission rate of acrylonitrile is less than 1 ton per year. The mass emission rates of air pollutants/LFG constituents are discussed below.

First 5 Years of Operation – Phase 1 Development

As noted in Table A1-1, during the first 5 years of the OHD facility operation, the maximum uncontrolled emission rates of the air pollutants/LFG constituents are less than 12 tons per year except for the emission rate of NMOC of about 33 tons per year. The maximum controlled emission rates of the air pollutants/LFG constituents are less than 9 tons per year except for the emission rate of CO of about 78 tons per year. In essence, the maximum uncontrolled or controlled emission rate of any air pollutant/LFG constituent is less than 100 tons per year. Therefore, the OHD facility is <u>not</u> a *major facility* during the first 5 years of operation. Thus, for the duration of the construction and operation permit issued by FDEP for the Phase 1 development, the OHD facility is a *minor facility* in accordance with Rule 62-210.200(165), F.A.C.

In accordance with Rule 62-212.400(2)(d)1, F.A.C., new minor facilities are <u>not</u> subject to the PSD pre-construction review requirements. Therefore, for the Phase 1 development of the OHD facility, Omni is <u>not</u> subject to the PSD pre-construction review requirements of Chapter 62-212, F.A.C.

30 Years – End of Operating Life

As noted in Table A1-1, for the 30-year operating life of the OHD facility, the maximum controlled emission rates of the air pollutants/LFG constituents are less than 33 tons per year except for the emission rate of CO of about 300 tons per year. It is noted that the maximum mass emission rate of CO from the landfill without the GES (i.e., uncontrolled emission) is less than 10 tons per year, i.e., practically all of the CO is generated by the flares in the controlled situation. In essence, except for the emission rate of CO from the flares, the OHD facility is a minor facility throughout its 30-year operating life.

The emission rate of CO from the flare was computed using the default emission factors recommended in USEPA AP-42. The GES installation is expected to begin in the 6^{th} year of the landfill operation and will incorporate flare(s) as the control device. Prior to future phased developments of the OHD facility, the emission rate of CO from the flare(s) will be analyzed. The results of the analysis will be used to re-evaluate CO emission rates for the future developments and air construction permits for the OHD facility.

CONCLUSION

To be consistent with the solid waste permit application, mass emission rates of the air pollutants/LFG constituents for average annual waste disposal rate of 474,000 tons/year (1,657 tons/day) were presented in this attachment. As noted, the OHD facility is a *minor facility* during the first 5 years of operation. Therefore, Phase 1 development of the OHD facility is <u>not</u> subject to the PSD pre-construction review requirements.

Further, the OHD facility is a *minor facility* throughout its operating life for the waste disposal rate of 474,000 tons/year (1,657 tons/day), except for the emission rate of CO from the flares. It is noted that CO is emitted as a collateral pollutant from the flares that will be installed solely for the purpose of reducing the NMOC emissions as required by 40 CFR 60, Subpart WWW.

Table A1-1

MASS EMISSION RATES FOR REGULATED AIR POLLUTANTS AND LANDFILL GAS CONSTITUENTS (WASTE DISPOSAL RATE = 1,657 tons/day)

Air Pollutant/LFG Constituent [1]	Maximum Mass Emission Rates (tons/yr)			
	5 Years - Phase 1 Development		30 Years - End of Operating Life	
	Uncontrolled [2]	Controlled [3]	Uncontrolled [2]	Controlled [3]
Carbon Monoxide (CO)	2.5	77.9	9.7	300.5
Total Reduced Sulfur (TRS as S or SO_2) [4]	1.0	1.9	3.7	7.4
Non-Methane Organic Compounds (NMOC)	32.8	8.4	126.4	32.4
Total Volatile Organic Compounds (VOC)	11.7	3.0	45.0	11.5
Acrylonitrile (H009 - a HAP)	0.21	0.05	0.83	0.21
Any Individual HAP (H001 through H189) [5]	2.3	0.6	8.9	2.3
Total Hazardous Air Pollutants (HAPS)	6.8	1.7	26.3	6.7
Chlorides/HCl or H106 (as Cl^- or HCL) [6]	1.0	1.0	3.7	3.8
Mercury (Hg or H114)	3.2×10^{-5}	--	1.3×10^{-4}	--
Nitrogen Dioxide (NOX as NO_2)	NA [7]	4.2	NA [7]	16.1
Particulate Matter (PM)	NA [7]	1.7	NA [7]	6.7

Notes:

1 Per USEPA AP-42 Section 2.4 (1998).

2 Assuming no gas extraction and control system (GECS) is installed.

3 Assuming the proposed GECS is installed beginning in the 6th year of operation. See text for other assumptions.

4 Uncontrolled and controlled emissions are reported as S and SO_2, respectively.

5 Maximum emissions for any individual HAP. Emissions reported are for Toluene (H169).

6 Uncontrolled and controlled emissions are reported as Cl^- and HCL (H106), respectively.

7 Not Applicable. NO_2 and PM are not landfill gas constituents and are generated only by the flare(s).

Figure A1-1

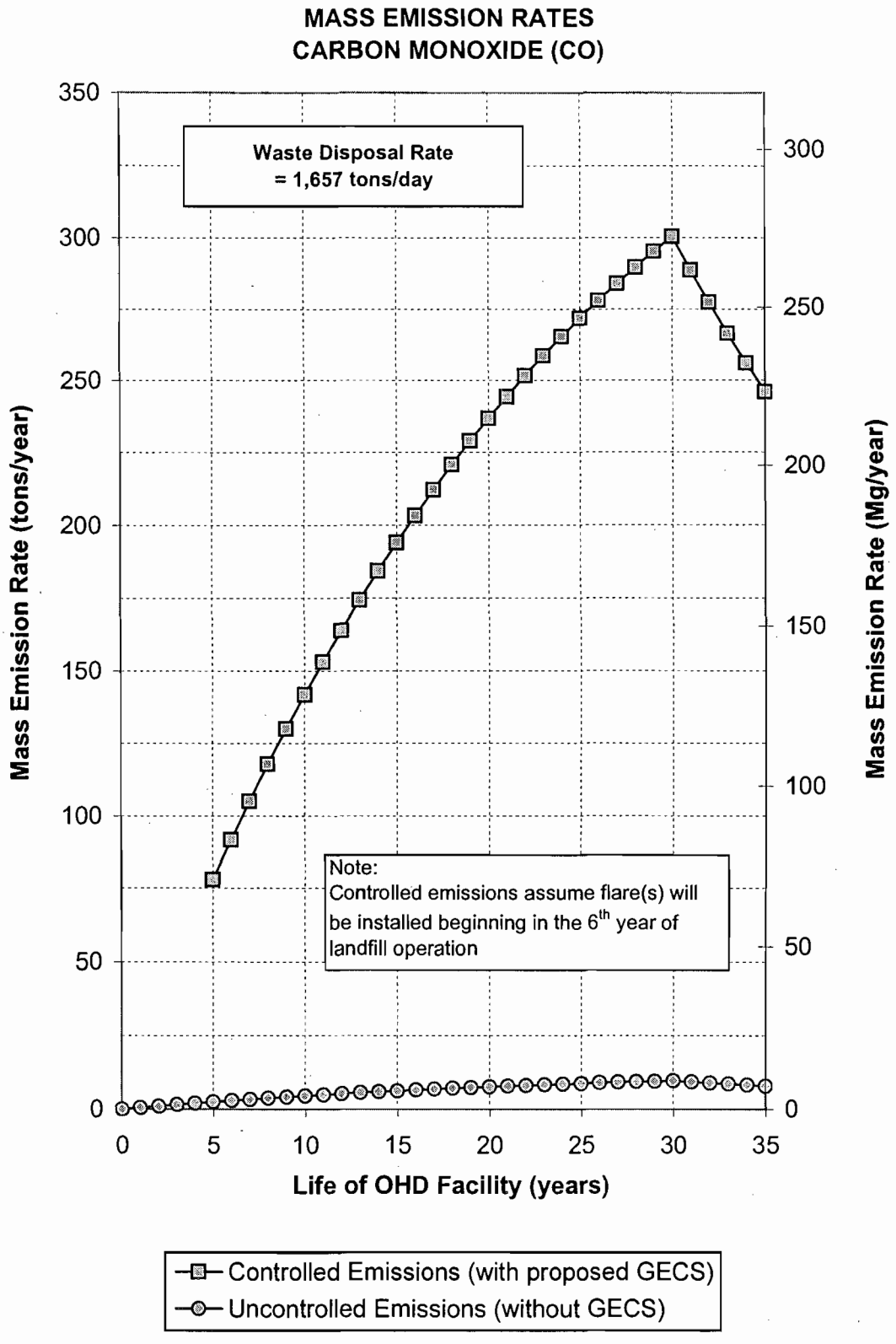

MASS EMISSION RATES
CARBON MONOXIDE (CO)
Waste Disposal Rate
= 1,657 tons/day
Note:
Controlled emissions assume flare(s) will be installed beginning in the 6th year of landfill operation
Mass Emission Rate (tons/year)
Mass Emission Rate (Mg/year)
Life of OHD Facility (years)
0
50
100
150
200
250
300
350
0
5
10
15
20
25
30
35
Controlled Emissions (with proposed GECS)
Uncontrolled Emissions (without GECS)

Figure A1-2

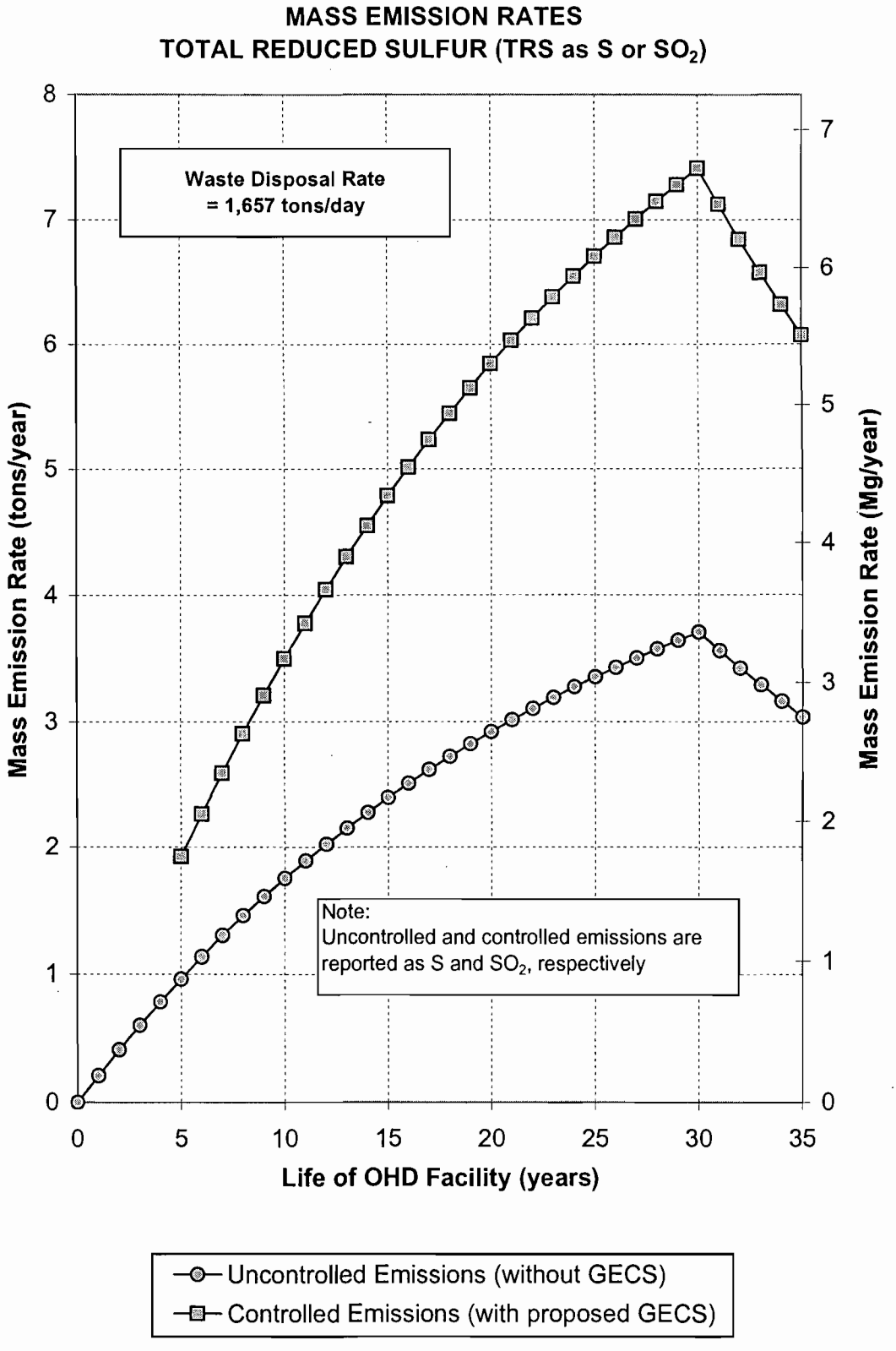

MASS EMISSION RATES
TOTAL REDUCED SULFUR (TRS as S or SO_2)
Waste Disposal Rate
= 1,657 tons/day
Note:
Uncontrolled and controlled emissions are reported as S and SO_2, respectively
Mass Emission Rate (tons/year)
Mass Emission Rate (Mg/year)
Life of OHD Facility (years)
0
1
2
3
4
5
6
7
8
0
5
10
15
20
25
30
35
Uncontrolled Emissions (without GECS)
Controlled Emissions (with proposed GECS)

Figure A1-3

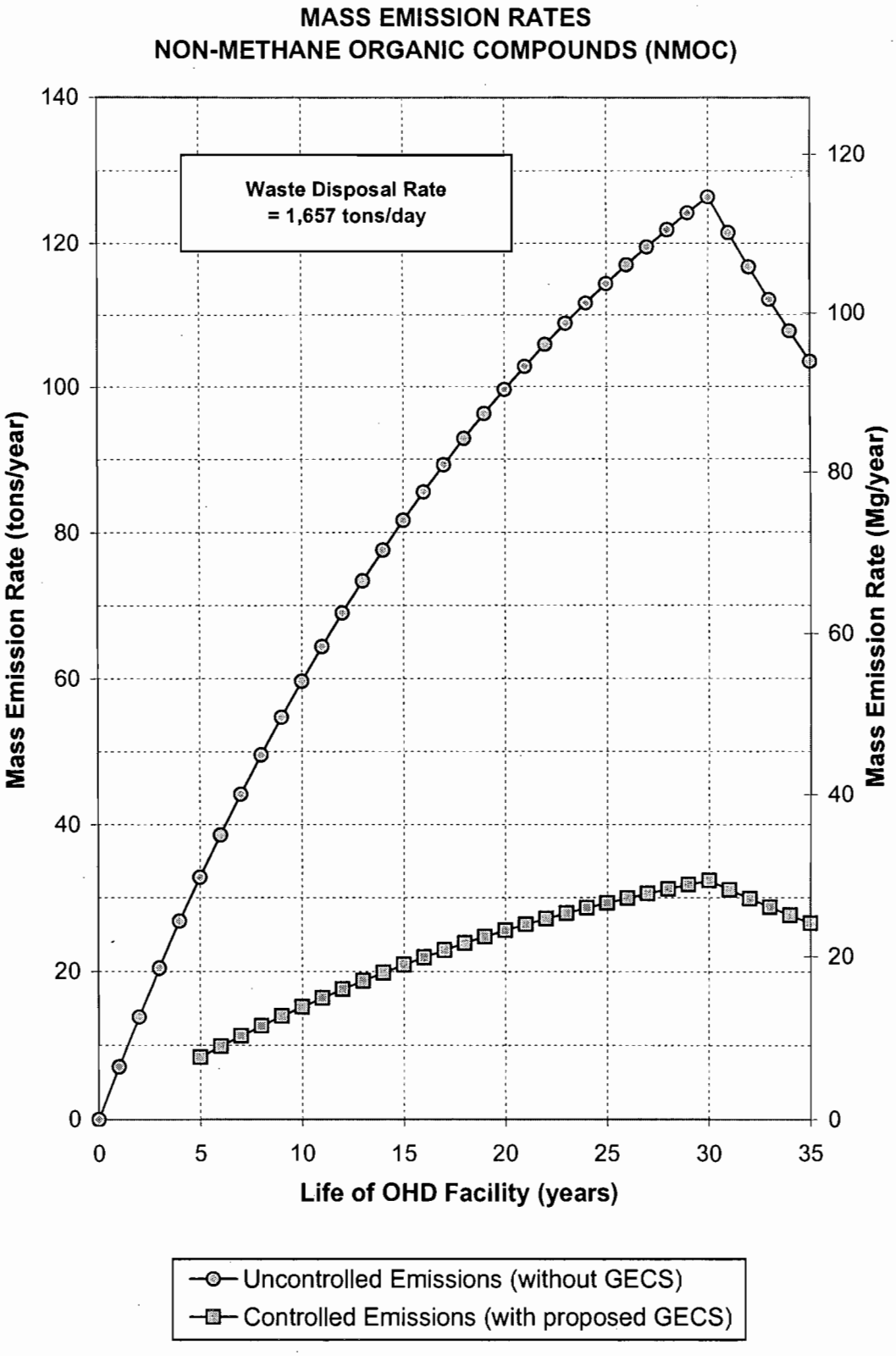

MASS EMISSION RATES
NON-METHANE ORGANIC COMPOUNDS (NMOC)
Waste Disposal Rate
= 1,657 tons/day
Mass Emission Rate (tons/year)
Mass Emission Rate (Mg/year)
Life of OHD Facility (years)
0
20
40
60
80
100
120
140
0
5
10
15
20
25
30
35
Uncontrolled Emissions (without GECS)
Controlled Emissions (with proposed GECS)

Figure A1-4

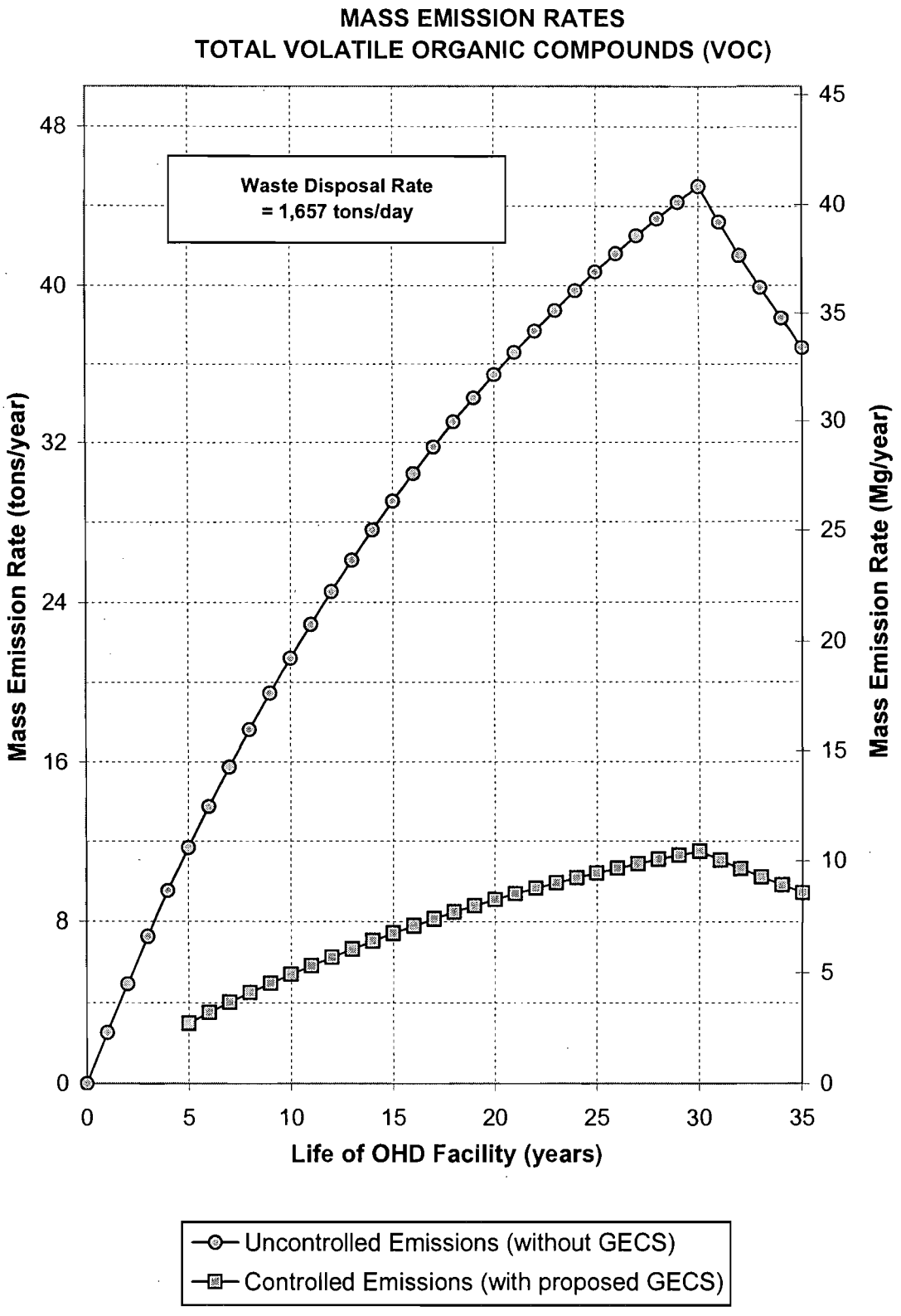

MASS EMISSION RATES
TOTAL VOLATILE ORGANIC COMPOUNDS (VOC)
Waste Disposal Rate
= 1,657 tons/day
Mass Emission Rate (tons/year)
Mass Emission Rate (Mg/year)
Life of OHD Facility (years)
0
8
16
24
32
40
48
0
5
10
15
20
25
30
35
45
Uncontrolled Emissions (without GECS)
Controlled Emissions (with proposed GECS)

Figure A1-5

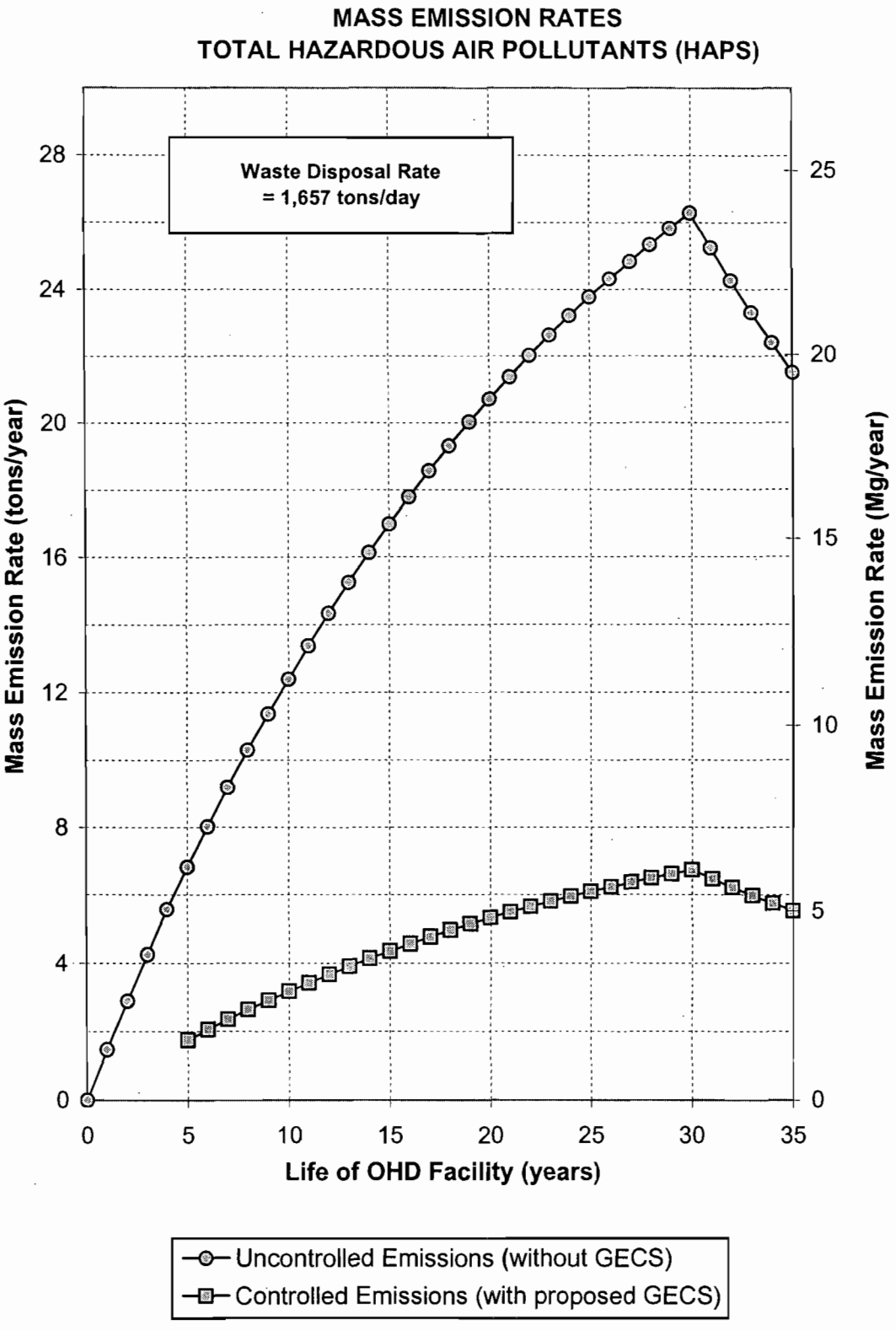

MASS EMISSION RATES
TOTAL HAZARDOUS AIR POLLUTANTS (HAPS)
Waste Disposal Rate
= 1,657 tons/day
Mass Emission Rate (tons/year)
Mass Emission Rate (Mg/year)
Life of OHD Facility (years)
0
4
8
12
16
20
24
28
0
5
10
15
20
25
0
5
10
15
20
25
30
35
Uncontrolled Emissions (without GECS)
Controlled Emissions (with proposed GECS)

Figure A1-6

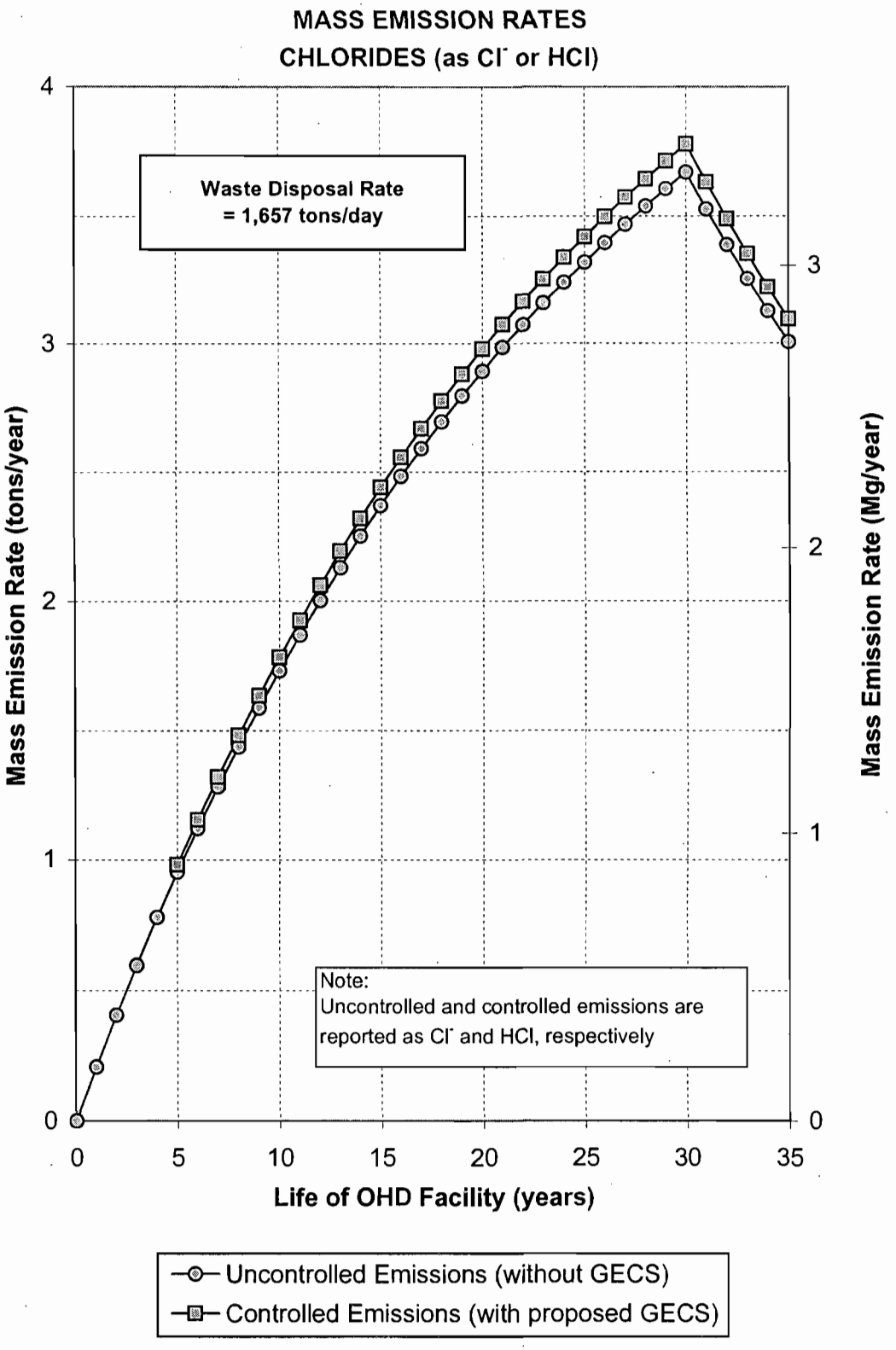

MASS EMISSION RATES
CHLORIDES (as Cl⁻ or HCl)
Waste Disposal Rate
= 1,657 tons/day
Note:
Uncontrolled and controlled emissions are reported as Cl⁻ and HCl, respectively
Mass Emission Rate (tons/year)
Mass Emission Rate (Mg/year)
Life of OHD Facility (years)
0
1
2
3
4
0
5
10
15
20
25
30
35
Uncontrolled Emissions (without GECS)
Controlled Emissions (with proposed GECS)

Figure A1-7

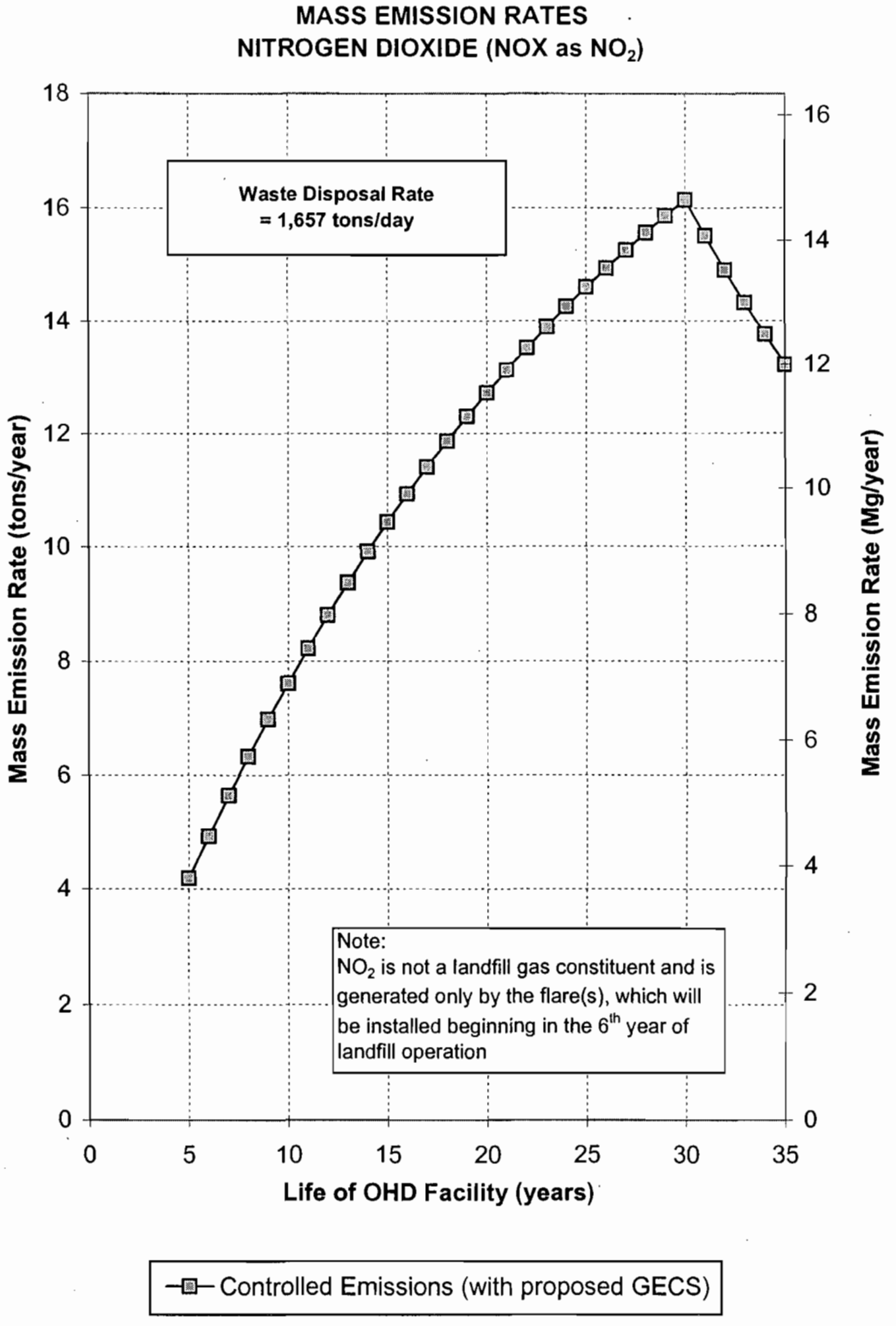
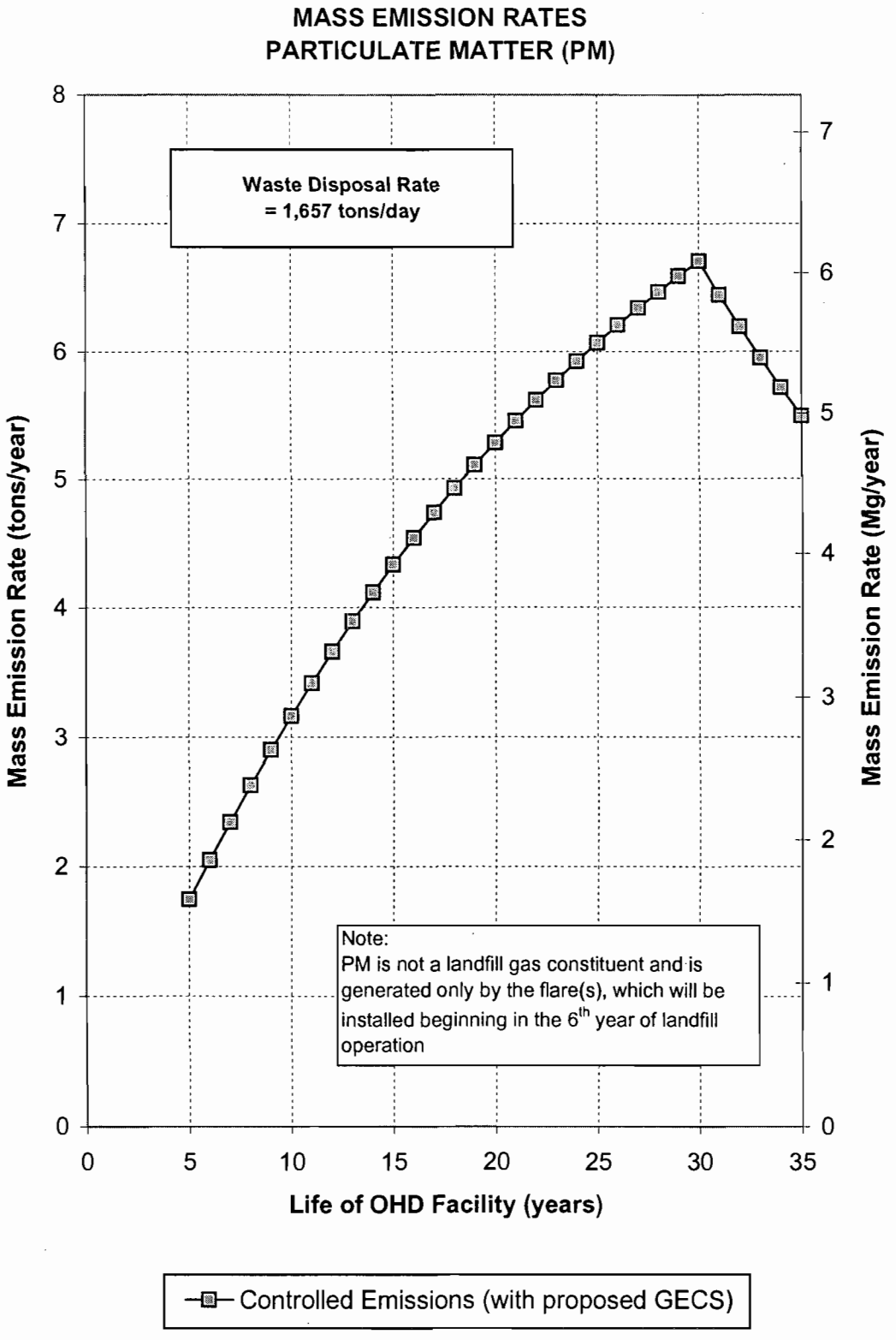

MASS EMISSION RATES
NITROGEN DIOXIDE (NOX as NO_2)
Waste Disposal Rate
= 1,657 tons/day
Note:
NO_2 is not a landfill gas constituent and is generated only by the flare(s), which will be installed beginning in the 6th year of landfill operation
Mass Emission Rate (tons/year)
Mass Emission Rate (Mg/year)
Life of OHD Facility (years)
0
2
4
6
8
10
12
14
16
18
0
5
10
15
20
25
30
35
Controlled Emissions (with proposed GECS)

Figure A1-8


MASS EMISSION RATES
PARTICULATE MATTER (PM)
Waste Disposal Rate
= 1,657 tons/day
Note:
PM is not a landfill gas constituent and is generated only by the flare(s), which will be installed beginning in the 6th year of landfill operation
Mass Emission Rate (tons/year)
Mass Emission Rate (Mg/year)
Life of OHD Facility (years)
0
1
2
3
4
5
6
7
8
0
5
10
15
20
25
30
35
Controlled Emissions (with proposed GECS)

Attachment 2

LANDFILL GAS CONSTITUENTS EMISSION ESTIMATED USING AP-42 SECTION 2.4

The methane (CH_4) generation rate and the landfill gas (LFG) constituents emission rates were estimated using the procedure outlined in USEPA AP-42 (Fifth Edition, Volume I), entitled "*Compilation of Air Pollutant Emission Factors*". USEPA AP-42 Section 2.4, entitled "*Emission Factor Documentation for Municipal Solid Waste Landfills*", (Supplement E, November 1998), referenced herein simply as AP-42, was used to estimate the emissions of relevant LFG constituents for the Oak Hammock Disposal (OHD) facility.

The LFG constituents, for which uncontrolled and controlled mass emission rates were computed, include carbon monoxide (CO), total reduced sulfur compounds (TRS measured as sulfur, S, or sulfur dioxide, SO_2), non-methane organic compounds (NMOC), total volatile organic compounds (VOC), total hazardous air pollutants (HAPS), chlorides (as Cl^- or HCl), mercury (Hg or H114), and acrylonitrile (H009, a HAP). Flare(s) will be used as the control device in the proposed gas extraction and control system (GECS) at the OHD facility. Secondary compounds exiting the flare(s) for which controlled mass emission rates were computed include CO, nitrogen dioxide (NOX as NO_2), and particulate matter (PM).

Methane Generation Rate

The methane generation rate for the OHD facility was estimated using the following Landfill Air Emissions Estimation model equation developed by EPA:

$$Q_{CH_4} = L_0 \, R \left(e^{-kc} - e^{-kt} \right) \tag{1}$$

where:

Q_{CH_4}	=	CH_4 generation rate at time t, m^3/yr;
L_0	=	CH_4 generation potential, m^3 of CH_4 per megagrams (Mg) of refuse;
R	=	average annual refuse acceptance rate during active life, Mg/yr;
e	=	natural log, unitless;
k	=	CH_4 generation rate constant, yr^{-1};
c	=	time since landfill closure, yrs (c=0 for active landfills); and
t	=	time since initial refuse placement, yrs.

An L_0 value of 100 m^3/Mg was used as recommended in AP-42. A k value of 0.04/year was used corresponding to areas with annual rainfall of 25 inches or more. As discussed earlier, two average annual refuse acceptance rates (R) were considered to compute the air pollutants/LFG constituents. The two rates used in the above equation to estimate the methane generation rate included R of approximately 1,038,000 Mg/yr and 430,000 Mg/yr. These R correspond to waste disposal rates of 4,000 tons/day and 1,657 tons/day, respectively, assuming landfill operations for 286 equivalent full days per year. The methane generation rates were computed for each year of the anticipated life of the OHD facility and for a few years after closure of the facility. The methane generation rates computed for the two average annual refuse acceptance rates are presented in Figure A2-1.

Uncontrolled Emissions

The uncontrolled emission rate of relevant LFG constituents (e.g. NMOC) were estimated using the following equation:

$$Q_P = 1.82\, Q_{CH_4} * \frac{C_P}{(1\times 10^6)} \qquad (2)$$

where:

Q_P = uncontrolled emission rate of pollutant P (e.g. NMOC), m^3/yr;
Q_{CH_4} = CH_4 generation rate, m^3/yr (from Equation 1);
C_P = concentration of pollutant P in LFG, ppmv (ppm by volume); and
1.82 = multiplication factor assuming 55 percent of LFG (by volume) is CH_4.

The concentrations (C_P) of relevant LFG constituents used in computing the uncontrolled emission rates are presented in Table A2-1. It is noted that a concentration of 595 ppmv (as hexane) was used for NMOC, as recommended by AP-42 for "*no or unknown co-disposal*", since the landfill will primarily contain municipal solid waste. Similarly, concentrations of 1.91 ppmv and 39.3 ppmv were used for hazardous air pollutants Benzene (H017) and Toluene (H169), respectively, as recommended by AP-42 for "*no or unknown co-disposal*".

The uncontrolled mass emissions rate of relevant LFG constituents (e.g. NMOC) were estimated using the following equation:

$$UM_P = Q_P * \left[\frac{MW_P * 1\ atm}{(8.205\times 10^{-5}\ m^3 * atm/gmol * {}^\circ K)\,(1000\ g/kg)\,(273+T)} \right] \qquad (3)$$

where:

UM_P = uncontrolled mass emission rate of pollutant P (e.g. NMOC), kg/yr;
MW_P = molecular weight of pollutant P, g/gmol;
Q_P = emission rate of pollutant P, m^3/yr (from Equation 2); and
T = temperature of landfill gas, °C.

The molecular weights (MW_P) of relevant LFG constituents used in computing the uncontrolled mass emission rates are also presented in Table A2-1. It was assumed that the operating pressure of the system is 1 atmosphere and the temperature of the LFG is 25°C, as recommended by AP-42.

Controlled Emissions

The controlled mass emission rate of relevant LFG constituents (except for TRS and Chlorides) were estimated using the following equation:

$$CM_P = \left[UM_P * \left(1 - \frac{\eta_{col}}{100}\right)\right] + \left[UM_P * \frac{\eta_{col}}{100} * \left(1 - \frac{\eta_{cnt}}{100}\right)\right] \quad (4)$$

where:

CM_P = controlled mass emission rate of pollutant P, kg/yr;
UM_P = uncontrolled mass emissions of pollutant P, kg/yr (from Equation 3);
η_{col} = collection efficiency of GECS, percent; and
η_{cnt} = control efficiency of the GECS control device (i.e., flare), percent.

A collection efficiency of 75 percent was assumed for the GECS (i.e., only 75 percent of the gas generated by the landfill is collected by the GECS and flared whereas the remaining 25 percent escapes as uncontrolled emissions). It is noted that 75 percent collection efficiency is the recommended average collection efficiency for landfill GECS in AP-42. Flare(s) will be used as the control device in the proposed GECS. Therefore, control efficiencies for flare(s), ranging from 98.0 to 99.7 percent, recommended in AP-42 were used in Equation 4.

The following equation was used to estimate the controlled mass emission rate of TRS (as SO_2):

$$CM_{SO_2} = UM_S * \frac{\eta_{col}}{100} * 2.0 \quad (5)$$

where:

CM_{SO_2} = controlled mass emission rate of SO_2, kg/yr;
UM_S = uncontrolled mass emission rate of total reduced sulfur (as S), kg/yr (from Equation 3);
η_{col} = collection efficiency of the GECS, percent (assumed as 75 percent); and
2.0 = ratio of the molecular weight of SO_2 to S.

The following equation was used to estimate the controlled mass emission rate of Chlorides (as HCl):

$$CM_{HCl} = UM_{Cl} * \frac{\eta_{col}}{100} * 1.03 * \left(\frac{\eta_{cnt}}{100}\right) \quad (6)$$

where:

CM_{HCl} = controlled mass emissions of HCl, kg/yr;
UM_{Cl} = uncontrolled mass emission rate of chlorides (as Cl^-); kg/yr (from Equation 3);
η_{col} = collection efficiency of the GECS, percent (assumed as 75 percent),
1.03 = ratio of the molecular weight of HCl to Cl^-; and
η_{cnt} = control efficiency of the GECS control device (i.e., flare), percent.

Controlled mass emissions of secondary compounds exiting the flare(s) (i.e., the control device in the proposed GECS) were estimated using the emission factors recommended in AP-42. It is noted that the controlled mass emissions of secondary compounds from the flare(s) were computed based on the amount of methane reaching the flare (i.e., 75% of the total methane generated by the landfill), corresponding to the assumed collection efficiency of the GECS. Further, the controlled mass emissions of secondary compounds from the flare(s) were estimated starting in the year in which the proposed GECS installation will begin at the OHD facility.

It is noted that:

- the controlled emission rates of CO presented include the CO emissions from the flare and the CO that will be released directly from the landfill due to the collection and control device inefficiencies;

- the controlled emission rates of TRS and Chlorides are presented as SO_2 and HCl, respectively (However, it is recognized that the TRS and Chlorides that will be

released directly from the landfill due to the collection and control device inefficiencies, will be released as S and Cl^-, respectively); and

- the mass emission rates of total HAPs and total VOCs were estimated by summing the mass emission rates of individual HAPs and individual VOCs, respectively.

Table A2-1

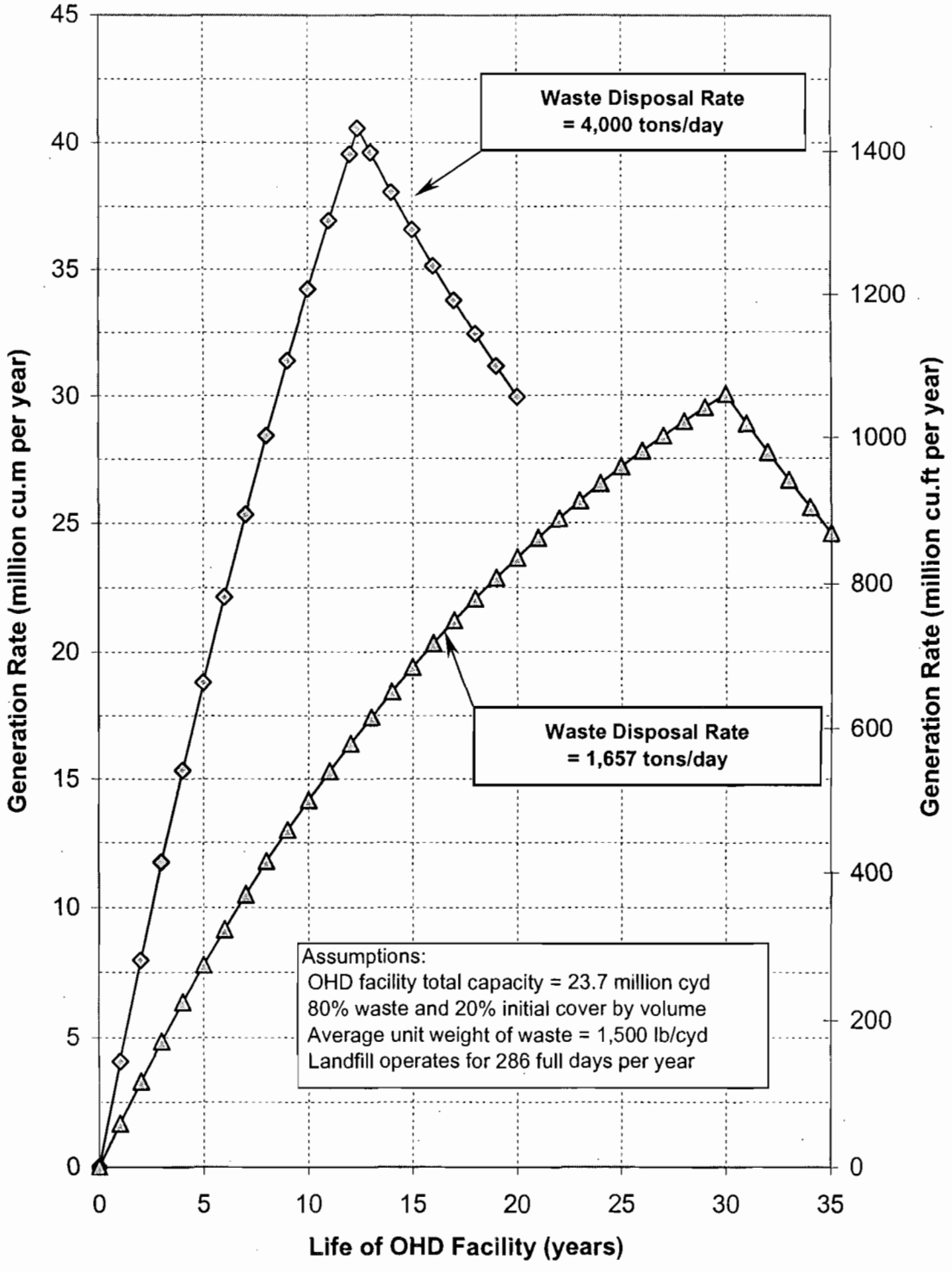
CONCENTRATIONS AND MOLECULAR WEIGHTS USED IN ESTIMATING LANDFILL GAS CONSTITUENTS EMISSIONS

Pollutant/Constituent	Concentration C_P (ppmv)	Molecular Weight MW_P (g/gmol)	Pollutant/Constituent	Concentration C_P (ppmv)	Molecular Weight MW_P (g/gmol)
Carbon Monoxide (CO)	141.00	28.01	HAP & VOC (continued)		
Total Reduced Surfur (TRS as S)	46.90	32.06	1,1-Dichloroethane	2.35	98.96
Non-Methane Organic Compound (NMOC)	595.00*	86.18	1,1-Dichloroethene	0.20	96.94
Chlorides (as Cl^-)	42.00	35.45	1,2-Dichloroethane	0.41	98.96
Hazardous Air Pollutants (HAP)			1,2-Dichloropropane	0.18	112.99
1,1,1-Trichloroethane	0.48	133.41	Acrylonitrile	6.33	53.06
Dichloromethane	14.30	84.93	Benzene	1.91*	78.12
Mercury	2.53×10^{-4}	200.61	Carbon Disulfide	0.58	76.14
Votatile Organic Compounds (VOC)			Carbon Tetrachloride	0.004	153.84
2-Propanol	50.10	60.11	Carbonyl Sulfide	0.49	60.07
Bromodichloromethane	3.13	163.83	Chlrorobenzene	0.25	112.56
Butane	5.03	58.12	Chloroethane	1.25	64.52
Chlorodifluoromethane	1.30	86.47	Chloroform	0.024	119.38
Dichlorodifluoromethane	15.70	120.91	Chloromethane	1.21	50.49
Dichlorofluoromethane	2.62	102.92	Dichlorobenzene	0.21	147.00
Dimethyl Sulfide	7.82	62.13	Ethylbenzene	4.61	106.17
Ethanol	27.20	46.08	Ethylene Dibromide	0.001	187.88
Ethyl Mercaptan	1.25	62.13	Hexane	6.57	86.18
Fluorotrichloromethane	0.76	137.37	Methyl Ethyl Ketone	7.09	72.11
Methyl Mercaptan	2.49	48.11	Methyl Isobutyl Ketone	1.87	100.16
Pentane	3.29	72.15	Perchloroethylene	3.73	165.83
Propane	11.10	44.10	Toluene	39.30*	92.14
HAP & VOC			Trichloroethene	2.82	131.38
1,1,2,2-Tetrachloroethane	1.11	167.85	Vinyl Chloride	7.34	62.50
1,1,2-Trichloroethane	0.10	133.41	Xylene	12.10	106.17

* Concentration corresponding to "No or Unknown co-disposal".

Figure A2-1

METHANE GENERATION RATE



Attachment 3

LANDFILL GAS CONSTITUENTS EMISSION ESTIMATED USING USEPA SOFTWARE

The methane (CH_4) generation rate and two of the landfill gas (LFG) constituents emission were also estimated using USEPA software entitled "*Landfill Gas Emissions Model (LandGEM)*", version 2.01. The software was downloaded from the USEPA's official website. The results obtained using the USEPA software were used to verify the CH_4 generation rate presented in Figure A2-1 and the uncontrolled mass emission rates of CO and NMOC presented in Figures 2 and 4, respectively.

A waste disposal rate of 4,000 tons/day (1.144 million tons/year) and the parameters discussed in Attachment 2 were used as input parameters in the USEPA software. The USEPA software output for CH_4 generation rate and uncontrolled mass emission rates of CO and NMOC are presented in Tables A3-1 through A3-3 and in Figures A3-1 through A3-3, respectively. As noted, the results obtained from the software are in close agreement with the results presented in Table 1 and in Figures 2, 4, and A2-1.

METHANE GENERATION RATE

TABLE A3-1 : METHANE GENERATION RATE FOR WASTE DISPOSAL RATE = 4,000 TONS/DAY

Model Parameters

Lo : 100.00 m^3 / Mg
k : 0.0400 1/yr
NMOC : 595.00 ppmv
Methane : 55.0000 % volume
Carbon Dioxide : 45.0000 % volume

Landfill Parameters

Landfill type : No Co-Disposal
Year Opened : 2003 Current Year : 2015 Closure Year: 2015
Capacity : 12903811 Mg
Average Acceptance Rate Required from
Current Year to Closure Year : 0.00 Mg/year

Model Results

Year	Refuse In Place (Mg)	Methane Emission Rate (Mg/yr)	(Cubic m/yr)
2004	1.038E+06	2.770E+03	4.152E+06
2005	2.076E+06	5.432E+03	8.142E+06
2006	3.114E+06	7.989E+03	1.198E+07
2007	4.152E+06	1.045E+04	1.566E+07
2008	5.191E+06	1.281E+04	1.920E+07
2009	6.229E+06	1.508E+04	2.260E+07
2010	7.267E+06	1.725E+04	2.586E+07
2011	8.305E+06	1.935E+04	2.900E+07
2012	9.343E+06	2.136E+04	3.202E+07
2013	1.038E+07	2.329E+04	3.491E+07
2014	1.142E+07	2.515E+04	3.770E+07
2015	1.246E+07	2.693E+04	4.037E+07
2016	1.246E+07	2.588E+04	3.879E+07
2017	1.246E+07	2.486E+04	3.727E+07
2018	1.246E+07	2.389E+04	3.581E+07
2019	1.246E+07	2.295E+04	3.440E+07
2020	1.246E+07	2.205E+04	3.305E+07
2021	1.246E+07	2.119E+04	3.176E+07
2022	1.246E+07	2.036E+04	3.051E+07
2023	1.246E+07	1.956E+04	2.932E+07
2024	1.246E+07	1.879E+04	2.817E+07
2025	1.246E+07	1.805E+04	2.706E+07
2026	1.246E+07	1.735E+04	2.600E+07
2027	1.246E+07	1.667E+04	2.498E+07
2028	1.246E+07	1.601E+04	2.400E+07
2029	1.246E+07	1.538E+04	2.306E+07
2030	1.246E+07	1.478E+04	2.216E+07
2031	1.246E+07	1.420E+04	2.129E+07
2032	1.246E+07	1.365E+04	2.045E+07
2033	1.246E+07	1.311E+04	1.965E+07
2034	1.246E+07	1.260E+04	1.888E+07
2035	1.246E+07	1.210E+04	1.814E+07
2036	1.246E+07	1.163E+04	1.743E+07
2037	1.246E+07	1.117E+04	1.675E+07
2038	1.246E+07	1.073E+04	1.609E+07
2039	1.246E+07	1.031E+04	1.546E+07
2040	1.246E+07	9.908E+03	1.485E+07
2041	1.246E+07	9.520E+03	1.427E+07
2042	1.246E+07	9.147E+03	1.371E+07
2043	1.246E+07	8.788E+03	1.317E+07
2044	1.246E+07	8.443E+03	1.266E+07

CO EMISSION RATE

TABLE A3-2: MASS EMISSION RATE OF CO FOR WASTE DISPOSAL RATE = 4,000 TONS/DAY

Model Parameters

Lo : 100.00 m^3 / Mg
k : 0.0400 1/yr
NMOC : 595.00 ppmv
Methane : 55.0000 % volume
Carbon Dioxide : 45.0000 % volume
Air Pollutant : Carbon Monoxide
Molecular Wt = 28.01 Concentration = 141.000000 ppmV

Landfill Parameters

Landfill type : No Co-Disposal
Year Opened : 2003 Current Year : 2015 Closure Year: 2015
Capacity : 12903811 Mg
Average Acceptance Rate Required from
Current Year to Closure Year : 0.00 Mg/year

Model Results

Year	Refuse In Place (Mg)	Carbon Monoxide Emission Rate (Mg/yr)	(Cubic m/yr)
2004	1.038E+06	1.240E+00	1.065E+03
2005	2.076E+06	2.432E+00	2.087E+03
2006	3.114E+06	3.577E+00	3.070E+03
2007	4.152E+06	4.677E+00	4.014E+03
2008	5.191E+06	5.733E+00	4.921E+03
2009	6.229E+06	6.749E+00	5.793E+03
2010	7.267E+06	7.724E+00	6.630E+03
2011	8.305E+06	8.662E+00	7.435E+03
2012	9.343E+06	9.562E+00	8.208E+03
2013	1.038E+07	1.043E+01	8.951E+03
2014	1.142E+07	1.126E+01	9.664E+03
2015	1.246E+07	1.206E+01	1.035E+04
2016	1.246E+07	1.158E+01	9.944E+03
2017	1.246E+07	1.113E+01	9.554E+03
2018	1.246E+07	1.069E+01	9.179E+03
2019	1.246E+07	1.027E+01	8.819E+03
2020	1.246E+07	9.872E+00	8.474E+03
2021	1.246E+07	9.485E+00	8.141E+03
2022	1.246E+07	9.113E+00	7.822E+03
2023	1.246E+07	8.756E+00	7.515E+03
2024	1.246E+07	8.412E+00	7.221E+03
2025	1.246E+07	8.082E+00	6.938E+03
2026	1.246E+07	7.766E+00	6.666E+03
2027	1.246E+07	7.461E+00	6.404E+03
2028	1.246E+07	7.168E+00	6.153E+03
2029	1.246E+07	6.887E+00	5.912E+03
2030	1.246E+07	6.617E+00	5.680E+03
2031	1.246E+07	6.358E+00	5.457E+03
2032	1.246E+07	6.109E+00	5.243E+03
2033	1.246E+07	5.869E+00	5.038E+03
2034	1.246E+07	5.639E+00	4.840E+03
2035	1.246E+07	5.418E+00	4.650E+03
2036	1.246E+07	5.205E+00	4.468E+03
2037	1.246E+07	5.001E+00	4.293E+03
2038	1.246E+07	4.805E+00	4.125E+03
2039	1.246E+07	4.617E+00	3.963E+03
2040	1.246E+07	4.436E+00	3.807E+03
2041	1.246E+07	4.262E+00	3.658E+03
2042	1.246E+07	4.095E+00	3.515E+03
2043	1.246E+07	3.934E+00	3.377E+03
2044	1.246E+07	3.780E+00	3.245E+03

NMOC EMISSION RATE

TABLE A3-3: MASS EMISSION RATE OF NMOC FOR WASTE DISPOSAL RATE = 4,000 TONS/DAY

Model Parameters

Lo : 100.00 m^3 / Mg
k : 0.0400 1/yr
NMOC : 595.00 ppmv
Methane : 55.0000 % volume
Carbon Dioxide : 45.0000 % volume

Landfill Parameters

Landfill type : No Co-Disposal
Year Opened : 2003 Current Year : 2015 Closure Year: 2015
Capacity : 12903811 Mg
Average Acceptance Rate Required from
Current Year to Closure Year : 0.00 Mg/year

Model Results

Year	Refuse In Place (Mg)	NMOC Emission Rate (Mg/yr)	(Cubic m/yr)
2004	1.038E+06	1.610E+01	4.492E+03
2005	2.076E+06	3.157E+01	8.808E+03
2006	3.114E+06	4.644E+01	1.296E+04
2007	4.152E+06	6.072E+01	1.694E+04
2008	5.191E+06	7.444E+01	2.077E+04
2009	6.229E+06	8.762E+01	2.445E+04
2010	7.267E+06	1.003E+02	2.798E+04
2011	8.305E+06	1.125E+02	3.137E+04
2012	9.343E+06	1.242E+02	3.464E+04
2013	1.038E+07	1.354E+02	3.777E+04
2014	1.142E+07	1.462E+02	4.078E+04
2015	1.246E+07	1.565E+02	4.367E+04
2016	1.246E+07	1.504E+02	4.196E+04
2017	1.246E+07	1.445E+02	4.032E+04
2018	1.246E+07	1.388E+02	3.874E+04
2019	1.246E+07	1.334E+02	3.722E+04
2020	1.246E+07	1.282E+02	3.576E+04
2021	1.246E+07	1.231E+02	3.436E+04
2022	1.246E+07	1.183E+02	3.301E+04
2023	1.246E+07	1.137E+02	3.171E+04
2024	1.246E+07	1.092E+02	3.047E+04
2025	1.246E+07	1.049E+02	2.928E+04
2026	1.246E+07	1.008E+02	2.813E+04
2027	1.246E+07	9.687E+01	2.703E+04
2028	1.246E+07	9.307E+01	2.597E+04
2029	1.246E+07	8.942E+01	2.495E+04
2030	1.246E+07	8.592E+01	2.397E+04
2031	1.246E+07	8.255E+01	2.303E+04
2032	1.246E+07	7.931E+01	2.213E+04
2033	1.246E+07	7.620E+01	2.126E+04
2034	1.246E+07	7.321E+01	2.043E+04
2035	1.246E+07	7.034E+01	1.962E+04
2036	1.246E+07	6.758E+01	1.885E+04
2037	1.246E+07	6.493E+01	1.812E+04
2038	1.246E+07	6.239E+01	1.741E+04
2039	1.246E+07	5.994E+01	1.672E+04
2040	1.246E+07	5.759E+01	1.607E+04
2041	1.246E+07	5.533E+01	1.544E+04
2042	1.246E+07	5.316E+01	1.483E+04
2043	1.246E+07	5.108E+01	1.425E+04
2044	1.246E+07	4.908E+01	1.369E+04

FIGURE A3-1

Projected Methane Emissions

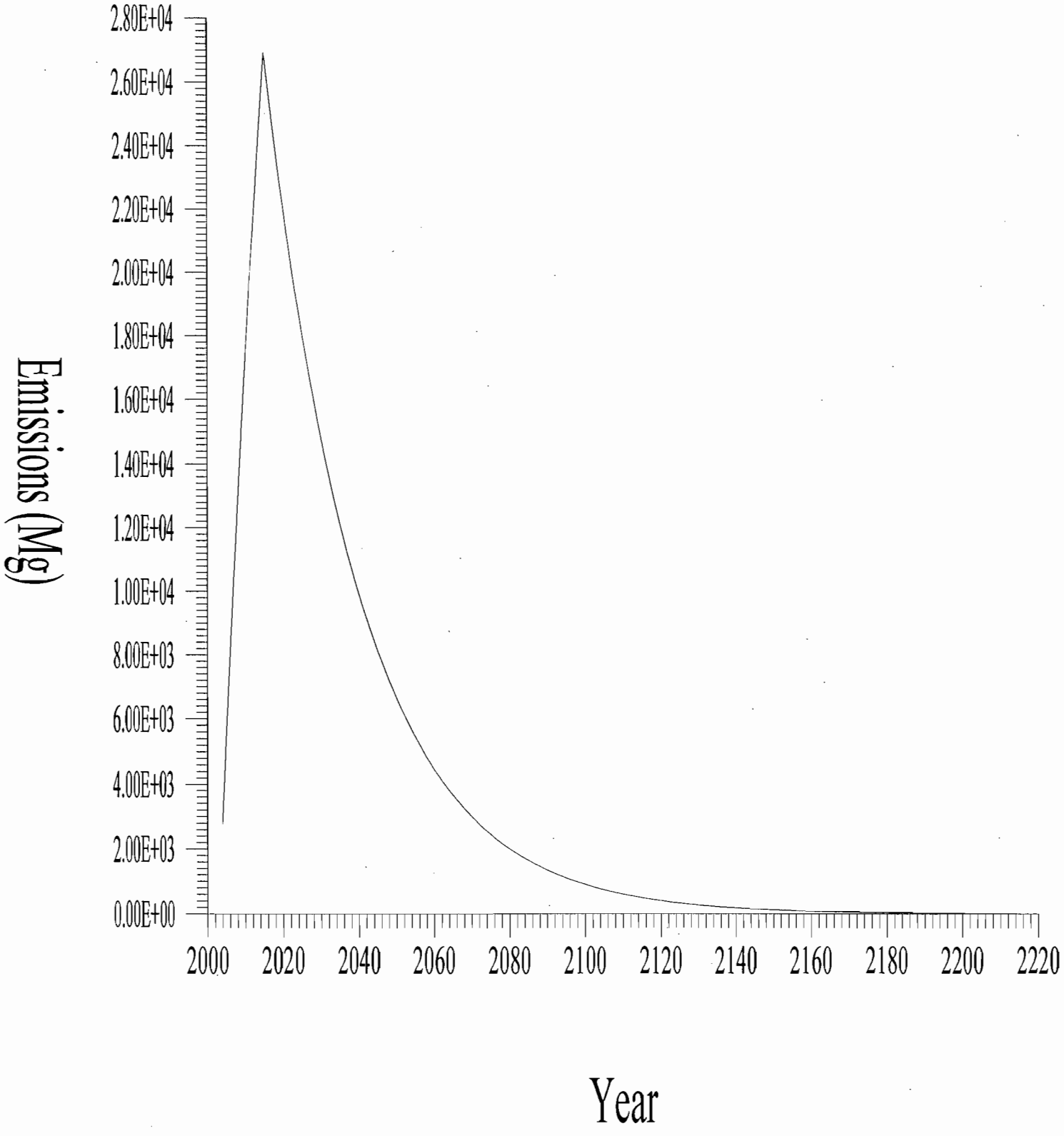


FIGURE A3-2

Projected Carbon Monoxide Emissions

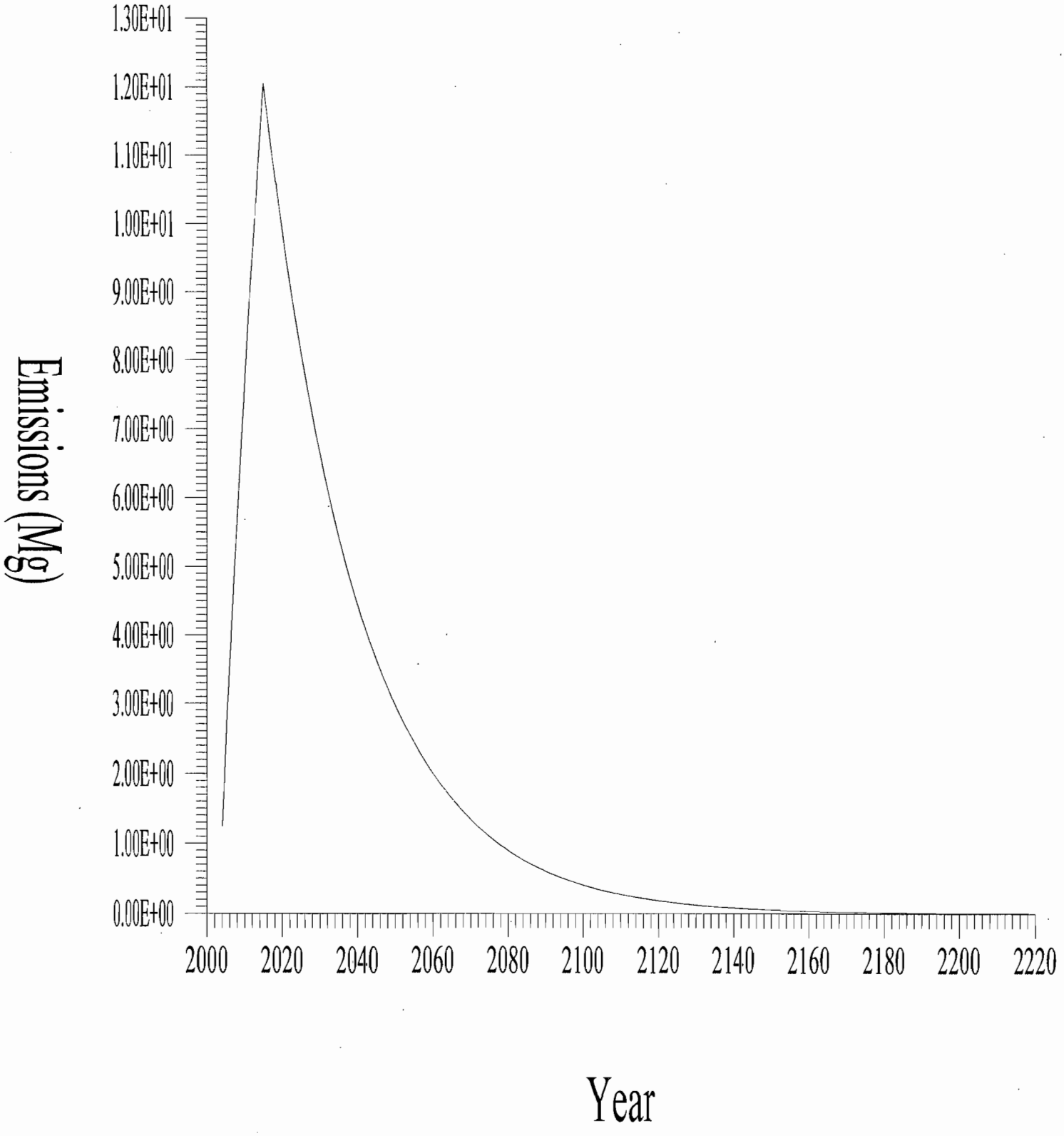
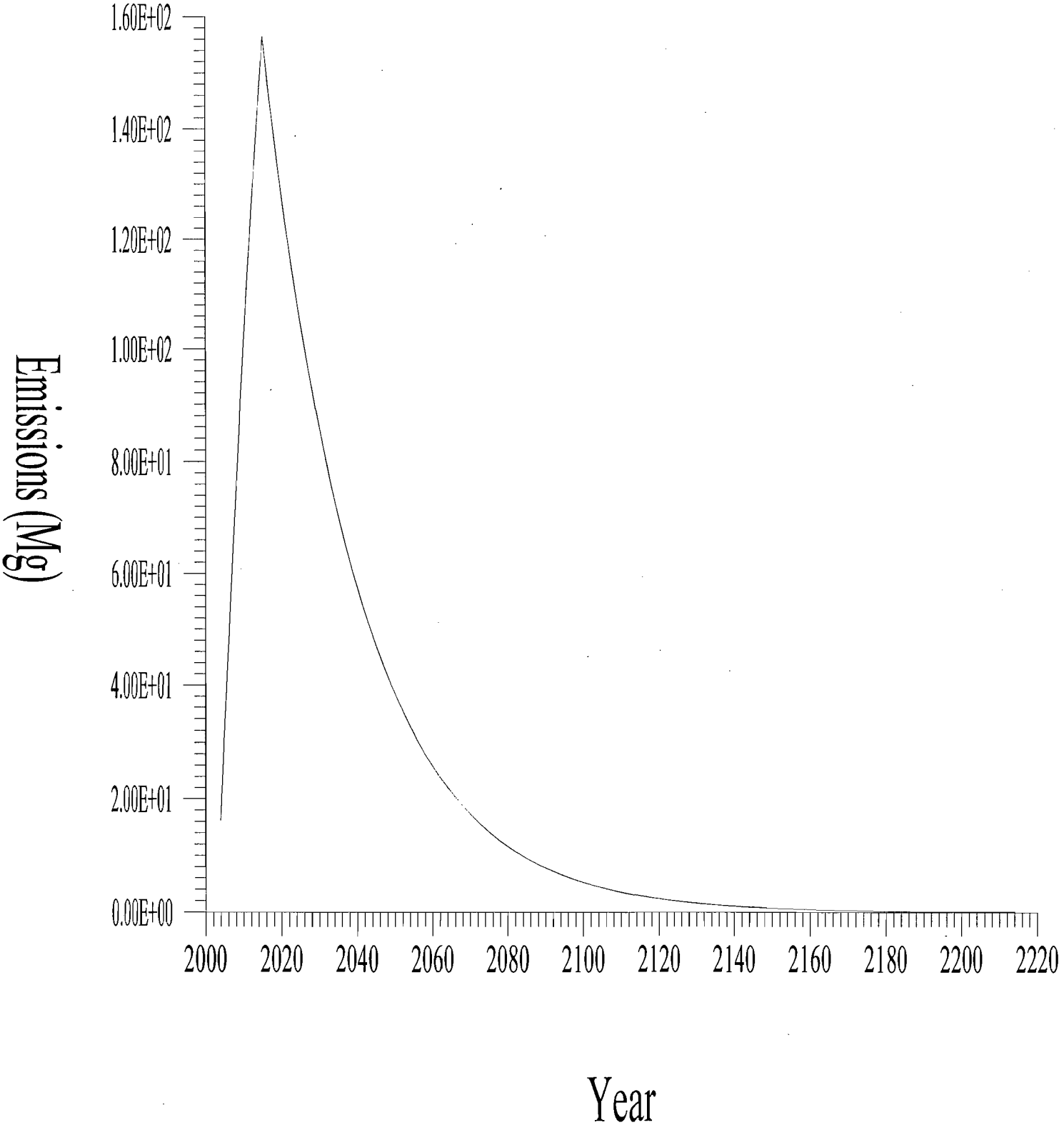


FIGURE A3-3

Projected NMOC Emissions



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