



Jeb Bush  
Governor

# Department of Environmental Protection

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

David B. Struhs  
Secretary

April 6, 2000

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Gary K. Crane  
Executive Vice President  
Ogden Energy Group, Inc.  
40 Lane Road  
Fairfield, New Jersey 07004

Re: DEP File No. 0690046-002-AC, PSD-FL-113A  
Ogden Martin Systems of Lake, Inc. / Lake County

Dear Mr. Crane

Enclosed is one copy of the Draft Air Construction Permit Modification for the Ogden Martin Systems of Lake, Inc. located at 3830 Rogers Industrial Park Road, Okahumpka, Lake County. The Technical Evaluation and Preliminary Determination, the Department's Intent to Issue Air Construction Permit Modification and the Public Notice of Intent to Issue Air Construction Permit Modification are also included.

The Public Notice of Intent to Issue Air Construction Permit Modification 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 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 A. A. Linero, P.E., Administrator, New Source Review Section at the above letterhead address. If you have any other questions, please contact Michael P. Halpin at 850/921-9530.

Sincerely,

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

CHF/mph

Enclosures

"More Protection, Less Process"

Printed on recycled paper.

In the Matter of an  
Application for Permit by:

Mr. Gary Crane, Executive Vice President  
Ogden Energy Group, Inc.  
40 Lane Road  
Fairfield, New Jersey 07004

DEP File No. 0690046-002-AC, PSD-FL-113A  
Ogden Martin Systems of Lake, Inc.  
Lake County

### INTENT TO ISSUE AIR CONSTRUCTION PERMIT MODIFICATION

The Department of Environmental Protection (Department) gives notice of its intent to issue an Air Construction Permit Modification (copy of Draft permit attached) for the proposed project, detailed in the application specified above and the enclosed Technical Evaluation and Preliminary Determination, for the reasons stated below.

The applicant, Mr. Gary Crane, Executive Vice President, Ogden Energy Group, Inc. applied on September 29, 1998, to the Department for an Air Construction Permit Modification for its Ogden Martin Systems of Lake, Inc. located at 3830 Rogers Industrial Park Road, Okahumpka, Lake County. In addition to allowing for the installation of an SNCR for the control of nitrogen oxide as well as revising certain emission test requirements, the permit is to clarify what fuels are permitted for combustion and in what quantities.

The Department has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes (F.S.), and 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 Modification is required to allow for the installation of an SNCR and revise existing permit requirements.

The Department intends to issue this Air Construction Permit Modification 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, and 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 Modification. 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 30 (thirty) days from the date of publication of Public Notice of Intent to Issue Air Construction Permit Modification. Written comments and requests for public meetings 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 written 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.

SENDER COMPLETE

- 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:  
 Gary Crane, Exe. V.P.  
 Ozden Energy Group  
 40 Lane Rd  
 Fairfield, NJ  
 07004

A. Received by (Please Print Clearly) **APR 14 2000**  
 Signature *Joseph R. Moretti*  
 B. Date of Delivery **APR 14 2000**

Agent  
 Addressee  
 Yes  
 No

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. Article Number (Copy from service label) **Z 031 391 938**

PS Form 3800, July 1999 Domestic Return Receipt 102595-99-M-1789

Z 031 391 938

US Postal Service  
**Receipt for Certified Mail**  
 No Insurance Coverage Provided.  
 Do not use for International Mail (See reverse)

Sent to	<i>Gary Crane</i>
Street & Number	<i>Ozden Energy Group</i>
Post Office, State, & ZIP Code	<i>Fairfield NJ 07004</i>
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date	<i>4-10-00</i>

*0090046002-AC*  
*PSD-FI-113A*

PS Form 3800, April 1995

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.



C. H. Fancy, P.E., 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 Modification (including the Public Notice of Intent to Issue Air Construction Permit Modification, 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 4-10-00 to the person(s) listed:

Mr. Gary K. Crane, Ogden Energy Group, Inc. \*  
Mr. Brian Bahor, Ogden Energy Group, Inc. \*  
Mr. David Crowe, Lake County Dept. of Solid Waste ✓  
Mr. Len Kozlov, Central District  
Ms. Jan Rae Clark, FDEP  
Ms. Edith Couiter, FDOH  
Mr. Richard Shine, Landers & Parsons, P.A.  
Ms. Mary F. Smallwood, RMSS&R, P.A.  
Ms. Valerie Fachs, Lake County Attorney's Office  
Ms. Rhonda H. Gerber, Lake County, Board of County Commissioners  
Mr. Gregg Worley, EPA  
Mr. John Bunyak, NPS

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.

Kimi Ober      4-10-00  
(Clerk)                      (Date)

**PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT MODIFICATION**

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

DEP File No. 0690046-002-AC

Ogden Energy Group, Inc.  
Ogden Martin Systems of Lake, Inc.  
Lake County

The Department of Environmental Protection (Department) gives notice of its intent to issue an Air Construction Permit Modification to Ogden Energy Group, Inc. to provide for the installation of a selective non-catalytic reduction system (SNCR); clarify what fuels are permitted for combustion and in what quantities; and revise certain emission test requirements at the resource recovery facility located at 3830 Rogers Industrial Park Road, Okahumpka, Lake County. A Best Available Control Technology (BACT) determination was not required pursuant to Rule 62-212.400, F.A.C. and 40 CFR 52.21, Prevention of Significant Deterioration (PSD). The applicant's name and mailing address are: Ogden Energy Group, 40 Lane Road, Fairfield, New Jersey 07004.

The existing facility produces electricity by combusting solid waste, recovering the heat as steam, and expanding the steam in an electrical generator. The electricity produced is sold to the local utility. The maximum facility generating capacity is 15.7 MW. The existing boilers are equipped with lime injection, carbon injection and baghouse fabric filters. The purpose of the SNCR system is to control nitrogen oxide emissions and to comply with 40 CFR 60, Subpart Cb - Emission Guideline and Compliance Times for Municipal Waste Combustors That Are Constructed on or Before December 19, 1995. These requirements are incorporated in Department Rule 62-204.800(8), F.A.C.

The units were permitted in 1990 to burn "wood chips and municipal waste (MSW), which can by definition include biohazardous waste." This modified permit will specify and limit the amounts and types of wastes that can be burned. In addition to other specified waste streams, the facility will be limited to burning no more than 9 percent of medical/infectious wastes on a 30-day rolling basis. A similar limit already exists in the present operating permit applicable to the facility.

An air quality impact analysis was not required. Emissions from the facility will not consume PSD increment and will not significantly cause or contribute to a violation of any state or federal ambient air quality standards. The technical evaluation and draft permit modification can be accessed at the Department's website ([www.dep.state.fl.us/air/permitting](http://www.dep.state.fl.us/air/permitting)) or as detailed below.

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 30 (thirty) days from the date of publication of this Public Notice of Intent to Issue Air Construction Permit Modification. Written comments and requests for public meetings 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 written 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

**NOTICE TO BE PUBLISHED IN THE NEWSPAPER**

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  
Suite 4, 111 S. Magnolia Drive  
Tallahassee, Florida, 32301  
Telephone: 850/488-0114  
Fax: 850/922-6979

Department of Environmental Protection  
Central District  
3319 Maguire Boulevard Suite, 232  
Orlando, Florida 32803-3767  
Telephone: 407/894-7555  
Fax: 407/897-5963

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 Administrator, New Source Review Section at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 850/488-0114, for additional information.

NOTICE TO BE PUBLISHED IN THE NEWSPAPER

TECHNICAL EVALUATION  
AND  
PRELIMINARY DETERMINATION

Lake County Resource Recovery Facility

Ogden Martin Systems of Lake, Inc.  
Okahumpka, Florida  
Lake, County

DEP FILE: 0690046-002-AC (PSD-FL-113A)

Facility ID No.: 0690046

Department of Environmental Protection  
Division of Air Resources Management  
Bureau of Air Regulation

March 30, 2000



# TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

## 1.0 APPLICATION INFORMATION

### 1.1 Applicant Name and Address

Ogden Energy Group, Inc.  
40 Lane Road  
Fairfield, New Jersey 07004

*Authorized Representative*  
Gary K. Crane, Executive Vice President

### 1.2 Reviewing and Process Schedule

09-29-98:	Date of Receipt of Application
10-24-98:	Notice of Application published in Lake Sentinel section of Orlando Sentinel
11-04-98:	Second Notice published in Lake Sentinel section of Orlando Sentinel
12-01-98:	Request for additional information submitted to Ogden
02-25-99:	Extension granted for Ogden's response to Department's request
05-27-99:	Second extension
07-06-99:	Third extension
09-16-99:	Fourth extension
11-29-99:	Fifth extension
02-29-00:	Application complete

## 2. FACILITY INFORMATION

### 2.1 Facility Location

The Ogden Martin Systems of Lake, Inc. facility is located at 3830 Rogers Industrial Park Road, Okahumpka, Lake County. The UTM coordinates of this facility are Zone 17; 413.12 km E; 3,179.21 km N.



Facility: Ogden Martin Systems of Lake, Inc.

Facility I.D. No. 0690046  
PSD- FL-113A

# TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

## 2.2 Standard Industrial Classification Code (SIC)

Major Group No.	49	Electric, Gas, and Sanitary Services
Group No.	495	Sanitary Services
Industry No.	4953	Refuse Systems

## 2.3 Facility Category

This facility produces electricity by combusting solid waste, recovering the heat as steam, and expanding the steam in an electrical generator. The solid waste burned is typically characterized as "refuse such as garbage and trash" or as municipal solid waste (MSW). Each of the incinerators at the facility is permitted to combust up to 288 tons per day (115% of rated capacity) of municipal solid waste (MSW). Certain segregated wastes consisting of materials typically found in MSW are mixed into the waste while maintaining the overall characteristics of the waste within the typical ranges of heat and moisture content as well as emission characteristics. The electricity produced is sold to the local utility. The maximum facility generating capacity is 15.7 MW.

The facility is classified as a major, or Title V, source of air pollution because emissions of at least one regulated air pollutant exceed 100 tons per year. Air pollutant emissions are over 100 TPY for sulfur dioxide (SO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>) and carbon monoxide (CO). It is also a major source because emissions of hazardous air pollutants exceed 10 tons per year individually or 25 tons per year in the aggregate.

This facility is on the list of the 28 Major Facility Categories, Table 62-212.400-1, F.A.C. Because emissions are greater than 100 tons per year for at least one criteria pollutant, the facility is also a major facility with respect to Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD).

The facility was issued a PSD permit, including a determination of Best Available Control Technology (BACT), by the FDEP on February 24, 1988. This PSD permit was later modified on December 10, 1990.

Lake County Resource Recovery Facility photographs follow:



Facility: Ogden Martin Systems of Lake, Inc.

Facility I.D. No. 0690046  
PSD- FL-113A

# TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

## 3. PROJECT DESCRIPTION

### 3.1 *This permit addresses the following emissions units:*

EMISSION UNIT NO.	SYSTEM	EMISSION UNIT DESCRIPTION
-001	Unit #1	288 Tons per Day (maximum) MSW Incinerator
-002	Unit #2	288 Tons per Day (maximum) MSW Incinerator
-003	-	Activated Carbon Silo

On September 28, 1998, Ogden Martin Systems of Lake, Inc requested a revision to their existing PSD permit for clarification of the permitted fuels allowed to be combusted at the Lake County Resource Recovery Facility. The permit currently allows that the MWC shall be fueled with wood chips or municipal solid waste "which can include biohazardous waste. Radioactive waste may not be burned unless the combustor has been issued a permit or waste is such quantity to be exempt in accordance with .... Hazardous waste may not be burned unless the combustor has been issued a permit or the waste is of such quantity to be exempt in accordance with.... Other wastes shall not be burned without specific prior written approval of Florida DER." A number of amendments to the air operating permit have been issued, many of which were attempting to quantify and qualify the applicant's ability to combust biohazardous waste. The applicant has provided some documentation, intended to show that the maximum throughput of biomedical waste, which the incinerators are capable of combusting, is 10 tons per hour. This permitting action will explicitly specify which materials can be burned in Emissions Units 001 and 002, as well as the applicable emission limits for each incinerator.

The existing boilers are already equipped with lime injection, carbon injection and baghouse fabric filters. Ogden additionally uses a mercury separation program to manage mercury emissions.

The following details the applicant's request and portions of the Department's determination:

### 3.2 *Waste fuels*

The units were originally permitted to utilize "refuse such as garbage and trash" as defined in the Department's solid waste rules. The applicant requests that the modified permit specify the wastes and certain segregated wastes as solid waste including municipal solid waste (MSW) as defined at 40 CFR 60.51b and Section 403.706 (5), Florida Statutes (1995). The applicant additionally requests that 62-210.200, F.A.C. apply to the definition of biomedical waste.

#### 3.2.1 The applicant proposes the following examples of processible non-hazardous waste:

Wood pallets; construction, renovation, and demolition wastes; clean wood; industrial process or manufacturing wastes; yard wastes; refuse-derived fuel; and motor vehicle maintenance materials. Items or materials suitable for human, plant, or domesticated animal use, consumption and/or application whose shelf life has expired or which the generator wishes to remove from the market and ensure the proper destruction of, such as, but not limited to: off-specification or expired consumer-packaged products and pharmaceuticals, non-prescription

## TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

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medications, health care products, toothpaste, hand creams, cosmetics, shampoos, foodstuffs, nutritional supplements, returned goods, and controlled substances.

Consumer-packaged products intended for human (or domesticated animal) use and/or application but not consumption, such as, but not limited to: carpet cleaners, household or bathroom cleaners, polishes, waxes, detergents, etc.

Waste materials generated in the manufacture of items in the categories above that are functionally or commercially useless (expired, rejected or spent), or finished products not yet formed or packaged for commercial distribution.

Packaging materials, natural and synthetic fibers, clothing, floor coverings of all types, fabric remnants, empty containers, debris items such as, but not limited to: aprons, gloves, floor sweepings and paints.

Waste materials that contain oil from routine cleanup of industrial or commercial establishments and machinery (such as, but not limited to non-turn or specialty oil filters) or the oil-contaminated materials used in the cleanup of spills of used or virgin petroleum products (including, but not limited to items such as: rags, lints and absorbents).

Waste materials generated by manufacturing, industrial, commercial, or agricultural activities including but not limited to items such as: filtercake from the manufacture of synthetic oil, paint overspray, or other filtration materials from industrial processes and systems.

Confidential documents (including, but not limited to business records, lottery tickets, event tickets, and microfilm).

Contraband, which may be disposed of at the request of appropriately, authorized local, state, or federal government agencies.

The authorized fuels may be received either as a mixture or as a single-item stream of household, commercial, institutional, agricultural, or industrial discards. The facility may receive oil spill debris. Waste tires may be accepted, but may not exceed 3% of the facility's fuel. The authorized fuels shall be well mixed with MSW or alternately charged with MSW. The facility owner shall not process prohibited fuels, such as lead-acid batteries, and sewage sludge from Publicly Owned Treatment Works.

3.2.2 In addition to "refuse such as garbage and trash" as well as wood chips, the Department authorizes, subject to the limitations contained in the permit, that the following fuels for the facility that are not MSW, may also be combusted.

The fuel may be received either as a mixture or as a single-item stream (segregated load) of discarded materials. If the facility intends to use an authorized fuel that is segregated non-MSW material, the fuel shall be either:

- a) well mixed with MSW in the refuse pit; or
- b) alternately charged with MSW in the hopper.

## TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

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The facility operator shall prepare and maintain records concerning the types and quantities of all segregated loads of non-MSW material which are received and used as fuel at the facility, and subject to a percentage weight limitation, below. For the purposes of this permit, a segregated load is defined to mean a container or truck that is primarily or exclusively filled with a single item or type of waste material.

To ensure that the facility's fuel does not adversely affect the facility's combustion process or emissions, the facility operator shall:

- a) comply with good combustion operating practices in accordance with 40 CFR 60.53b;
- b) install, operate and maintain continuous emissions monitors (CEMS) for oxygen, carbon monoxide, sulfur dioxide, oxides of nitrogen and temperature in accordance with 40 CFR 60.58b; and
- c) record and maintain the CEMS data in accordance with 40 CFR 60.59b.

These steps shall be used to ensure and verify continuous compliance with the emissions limitations in this permit.

Natural gas or distillate fuel oil may be used as fuel during warm-up, startup, shutdown, and malfunction periods, and at other times when necessary and consistent with good combustion practices.

Subject to the conditions and limitations contained in the permit, the following other solid waste materials may be used as fuel at the facility (i.e. the following are authorized fuels that are non-MSW material):

- a) Confidential, proprietary or special documents (including but not limited to business records, lottery tickets, event tickets, coupons and microfilm);
- b) Contraband that is being destroyed at the request of appropriately authorized local, state or federal governmental agencies, provided that such material is not an explosive, a propellant, a hazardous waste, or otherwise prohibited at the facility. For the purposes of this section, contraband includes but is not limited to drugs, narcotics, fruits, vegetables, plants, counterfeit money, and counterfeit consumer goods;
- c) Wood pallets, clean wood, and land clearing debris;
- d) Packaging materials and containers;
- e) Clothing, natural and synthetic fibers, fabric remnants, and similar debris, including but not limited to aprons and gloves; or
- f) Rugs, carpets, and floor coverings, but not asbestos-containing materials or polyethylene or polyurethane vinyl floor coverings.

Subject to the conditions and limitations contained in the permit waste tires may be used as fuel at the facility. The total quantity of waste tires received as segregated loads and burned at the facility shall not exceed 3%, by weight, of the facility's total fuel. Compliance with this limitation shall be determined by using a rolling 30-day average [in accordance with a specific condition of the permit].

Subject to the conditions and limitations contained in the permit, the following other solid waste materials may be used as fuel at the facility (i.e. the following are authorized fuels that are non-MSW material). The total quantity of the following non-MSW material received as segregated loads and burned at the facility shall not exceed 5%, by weight, of the facility's total fuel. Compliance with this limitation shall be determined by using a rolling 30-day average [in accordance with a specific condition of the permit].

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- a) Construction and demolition debris.
- b) Items suitable for human, plant or domesticated animal use, consumption or application where the item's shelf life has expired or the generator wishes to remove the items from the market. Such items or materials include but are not limited to off-specification or expired consumer products, pharmaceuticals, medications, health and person care products cosmetics, foodstuffs, nutritional supplements, returned goods, and controlled substances.
- c) Consumer-packaged products intended for human or domesticated animal use or application but not consumption. Such items or materials include but are not limited to carpet cleaners, household or bathroom cleaners, polishes, waxes and detergents.
- d) Waste materials that:
  - (i.) are generated in the manufacture of items in categories (b) or (c), above and are functionally or commercially useless (expired, rejected or spent);  
or
  - (ii.) are not yet formed or packaged for commercial distribution.  
Such items or materials must be substantially similar to other items or materials routinely found in MSW.
- e) Waste materials generated by manufacturing, industrial or agricultural activities, provided that these items or materials are substantially similar to items or materials that are found routinely in MSW, subject to prior approval of the Department.

However, the facility shall not burn:

- a) those materials that are prohibited by state or federal law;
- b) those materials that are prohibited or not authorized by this permit;
- c) lead acid batteries;
- d) hazardous waste;
- e) nuclear waste;
- f) radioactive waste;
- g) sewage sludge;
- h) explosives;
- i) Ni-cad batteries;
- j) Hg containing devices

### 3.2.3. Medical Waste

An evaluation of the facility's request with respect to combusting medical waste is provided in Section 5. However, for the purposes of describing Medical Waste, the definition from 40 CFR 60 Subpart Ec (60.51c) is offered:

*Medical/infectious waste* means any waste generated in the diagnosis, treatment, or immunization of human beings or animals, in research pertaining thereto, or in the production or testing of biologicals that is listed in paragraphs (1) through (7) of this definition. The definition of medical/infectious waste does not include hazardous waste identified or listed under regulations in part 261 of this chapter; household waste, as defined in §261.4(b)(1) of this chapter; ash from incineration of medical/infectious waste, once the incineration has been completed; human corpses, remains, and anatomical parts that are intended for interment; and domestic sewage materials identified in §261.4(a)(1) of this chapter.

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- (1) Cultures and stocks of infectious agents and associated biologicals, including: cultures from medical and pathological laboratories; cultures and stocks of infectious agents from research and industrial laboratories; wastes from the production of biologicals; discarded live and attenuated vaccines; and culture dishes and devices used to transfer, inoculate, and mix cultures.
- (2) Human pathological waste, including tissues, organs, and body parts and body fluids that are removed during surgery or autopsy, or other medical procedures, and specimens of body fluids and their containers.
- (3) Human blood and blood products including:
  - (i) Liquid waste human blood
  - (ii) Products of blood;
  - (iii) Items saturated and/or dripping with human blood; or
  - (iv) Items that were saturated and/or dripping with human blood that are now caked with dried human blood; including serum, plasma, and other blood components, and their containers, which were used or intended for use in either patient care, testing and laboratory analysis or the development of pharmaceuticals.  
Intravenous bags are also included in this category.
- (4) Sharps that have been used in animal or human patient care or treatment or in medical, research, or industrial laboratories, including hypodermic needles, syringes (with or without the attached needle), pasteur pipettes, scalpel blades, blood vials, needles with attached tubing, and culture dishes (regardless of presence of infectious agents). Also included are other types of broken or unbroken glassware that were in contact with infectious agents, such as used slides and cover slips.
- (5) Animal waste including contaminated animal carcasses, body parts, and bedding of animals that were known to have been exposed to infectious agents during research (including research in veterinary hospitals), production of biologicals or testing pharmaceuticals.
- (6) Isolation wastes including biological waste and discarded materials contaminated with blood, excretions, exudates, or secretions from humans who are isolated to protect others from certain highly communicable diseases, or isolated animals known to be infected with highly communicable diseases.
- (7) Unused sharps including unused, discarded sharps; hypodermic needles, suture needles, syringes, and scalpel blades.

### 3.2.4. Segregated Solid Waste Record Keeping:

The following records shall be made and kept to demonstrate compliance with the segregated non-MSW percentage limitations of specified in 3.2.2.

Each segregated load of non-MSW materials, that is subject to the percentage weight limitation of section 3.2.2., which is received for processing shall be documented as to waste description and weight. The weight of all waste materials received for processing shall be measured using the facility truck scale and recorded.

Each day the total weight of segregated tires received shall be computed, and the daily total shall be added to the sum of the daily totals from the previous 29 days. The resultant 30-day total weight of tires shall be divided by the total weight of all waste materials received in the same 30-

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day period, and the resultant number shall be multiplied by 100 to express the ratio in percentage terms. The percentage computed shall be compared to the 3% limitation.

Each day the total weight of segregated non-MSW materials received that are subject to the 5% restriction shall be computed, and the daily total shall be added to the sum of the daily totals from the previous 29 days. The resultant 30-day total weight of segregated non-MSW materials shall be divided by the total weight of all waste materials received in the same 30-day period, and the resultant number shall be multiplied by 100 to express the ratio in percentage terms. The percentage computed shall be compared to the 5% limitation.

### 3.2.6. Record Keeping of Medical Waste Combusted

The following records shall be made and kept to demonstrate compliance with the medical waste limitations specified within Section 5. This waste will be delivered boxed and in segregated loads and shall be alternately charged with MSW in the hopper for combustion.

Each load of medical waste materials, which is received for processing, shall be documented as to waste description and weight. This shall be compared to the shipping records of each load and discrepancies noted. These records shall be maintained at the site for a period of five years. The weight of all waste materials received for processing shall be measured using the facility truck scale and recorded.

Each day the total weight of medical waste received shall be computed, and the daily total shall be added to the sum of the daily totals from the previous 29 days. The resultant 30-day total weight of medical waste shall be divided by the total weight of all waste materials received in the same 30-day period, and the resultant number shall be multiplied by 100 to express the ratio in percentage terms. The percentage computed shall be compared to the limitation identified in Section 5.

### 3.3. *Emission Limits*

- The applicant proposes that the following emissions limits currently in the PSD be deleted:
- Beryllium emission limit be deleted since the facility has continuously demonstrated compliance with these limits (all test results were non-detectable).
- To eliminate the VOCs emission limit since the existing CO limit and continuous monitor would provide assurance that emissions of VOCs remain low.
- To eliminate the fluoride emissions limit since hydrogen fluoride is removed in the semi-dry scrubber. The low emissions are evidenced by the consistently low test results and the current monitoring of SO<sub>2</sub> emissions is proposed as an adequate surrogate.

The Department's Bureau of Air Regulation has determined that a CO limit shall be part of the permit. The CO limit requirement is one of the rationales to demonstrate continuous compliance with GCP stated in the EPA Municipal Waste Combustion: Background Document mentioned below and is also a part of the applicable Subpart Cb emissions standards.

Regarding beryllium (Be) and hydrogen fluoride (HF), the Department has test results accomplished during the initial and routine performance testing to demonstrate that the burning



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of the previously combusted fuels does not exceed the permitted limits imposed as part of the original BACT-PSD permit.

The Department recognizes that 40 CFR 60, Subpart Cb includes no emission standards for these pollutants. However, considering the change in fuel slates requested herein, rather than a complete elimination of further testing, the demonstration of compliance will be extended to testing once every 5 years.

### 3.4. *Removal of 300 °F SDA/FF outlet Temperature Limit*

The applicant proposed that the existing 300°F temperature limit at the acid gas control device exit (fabric filter outlet) be replaced with the Subpart Cb particulate control device inlet temperature limit.

The applicant contends that the 40 CFR 60 Subpart Cb temperature limit is determined during annual compliance testing and therefore it is directly tied to actual emissions performance of the boiler and air pollution control equipment. It is presumed that the current limit of 300°F at the exit of the acid gas control device was primarily intended to ensure that the acid gas control device would achieve a high removal rate of acid gases and secondarily to ensure that trace metals and semivolatile organics such as mercury and dioxins would be condensed onto particulate and therefore collected in the particulate control device.

40 CFR 60 Subpart Cb incorporates emission limits for MWC acid gases (HCl and SO<sub>2</sub>). The HCl limit is based on annual stack testing but can be continuously achieved by SDA/FF air pollution control equipment irrespective of a 300°F temperature limit. The applicant affirms that, the Subpart Cb temperature limit derived directly from annual compliance tests ensures that control of trace metals and dioxins or other organics will be continuously achieved. Consequently, maintaining a 300°F baghouse outlet temperature provides no additional control for these metals.

Based on the above, the applicant believes that the substitution of the Subpart Cb particulate control device inlet temperature limit for the existing 300°F limit will ensure that high removal levels of all metals and semivolatile organics will be continuously achieved.

As has been done in previous Determinations, the Department concurs with the applicant and its proposal. The outlet temperature requirement is deleted from the permit and replaced by the inlet temperature to the control device as required by 40 CFR 60, Subpart Cb.

As explained in the EPA's Background Information Document to the 40 CFR 60 Subpart Cb Emissions Guidelines, EPA decided to select the inlet temperature to the control device as the control parameter. EPA's explanation of how to determine the maximum PM control device inlet temperature is to "take the highest average PM control device inlet temperature measured during any one of three successful performance run for dioxin/furans and to add 17°C (30°F). The averaging time for the PM control device inlet temperature limit must be consistent with the averaging time for a single dioxin/furan performance test (approximately 4 hours). If an 8-hour averaging time was allowed for the inlet temperature, then a unit could theoretically operate for 4

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hours at temperatures above those shown to be safe by the dioxin/furan performance test. The PM control device inlet temperature requirements help ensure that conditions for high dioxin/furan formation rates do not occur. The temperature limit also controls partitioning of dioxin/furan between the solid and vapor phase. At lower temperatures, dioxins/furans remain absorbed on PM and are disposed with the collected fly ash. There is no evidence that dioxin/furans absorbed on fly ash can be volatilized at ambient temperatures nor leached in landfills. EPA adds that the temperature at which low dioxin/furan emissions is achieved may defer between MWC units, and that the requirements take that into consideration" <sup>1</sup>.

### 3.5 *Furnace Temperature Requirements*

The PSD permit requires that the furnace temperature be monitored and maintained above 1,800°F for a combustion residence time of at least one second. Through operating permit changes, this permit condition was altered to say that the applicant may utilize a roof temperature of 1138°F as a surrogate for the secondary chamber temperature of 1800°F as required for medical waste incineration proposes. In light of the fuel slate changes being incorporated herein, the applicant shall be required to comply with the 1800°F requirement. Additionally, the applicant should be required to comply with the good combustion practices (GCP) outlined in the 40 CFR 60, Subpart Cb.

### 3.6 *Selective Non Catalytic Reduction (SNCR) System*

To comply with the NO<sub>x</sub> emission limits specified in 40 CFR 60 Subpart Cb, the applicant is proposing to install a selective non-catalytic reduction (SNCR) system as well as a continuous emission monitor for NO<sub>x</sub>. The following describes a typical system:

The retrofit will store, convey, and inject aqueous urea into the furnace of each boiler immediately above the over fire air zone. The SNCR system may use urea, instead of ammonia, to provide the reducing reaction with NO<sub>x</sub> forming nitrogen and water. That reaction occurs across a wider temperature range than ammonia and reduces the potential health and safety risks associated with the release of ammonia during handling or storage.

The SNCR unit will be designed to allow the concentrated reagent to be delivered to the facility in a heated, self-unloading tanker truck and transferred to a heated fiberglass reinforced plastic tank for on site storage. The tank will provide approximately one to two weeks of storage capacity under normal operating conditions.

A common circulation module transfers the chemical from the storage tank to the individual boiler metering modules. A recirculation pump and a supplemental electric heater, both located on the circulation module, provide agitation and heating capability. Flow and pressure control of the urea and dilution water fluids used in the SNCR process is performed with the metering modules. Metering of the concentrated reagent, dilution of the reagent with water and mixing of the resulting solution is also accomplished at these modules. The diluted reagent is pumped to the distribution modules where the individual distribution panels are located. The panel regulates the compressed air and diluted reagent flows to the individual fluid injection nozzles.

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The Department's Bureau of Air Regulation allows the installation of the SNCR system to reduce NO<sub>x</sub> emissions to comply with the 40, CFR 60 Subpart Cb NO<sub>x</sub> standard, allowing for 10 ppmvd ammonia slip at 7% O<sub>2</sub>.

## 4. PROCESS DESCRIPTION

### 4.1 *General Information*

The facility is a waste-to-energy installation employing mass burning of solid waste, heat recovery as superheated steam, and power generation in a steam electric cycle. Other than landfilling, this is the most common method of solid waste disposal in the United States. There are twelve such facilities in the State of Florida. Following is a description of the process.

Waste is received via transfer, roll-off, or collection vehicles. Upon arrival, each vehicle is weighed at the scale house and the waste is categorized. Any unacceptable waste is diverted at this time. All acceptable waste is taken to the Refuse Receiving Building, where it is deposited into the refuse storage pit. The refuse is stored at this location until needed to charge the combustion units.

Charging of the combustion units is accomplished using overhead cranes equipped with grapples. These grapples stack, mix, relocate waste within the pit and transfer it into the feed hoppers serving each unit. Currently, the waste enters the two refuse-fired steam generators, each of which consists of a Martin GmbH Reverse-Reciprocating Stoker Grate and Heat Recovery/Steam generator components manufactured by Zurn Industries. A Biomedical Waste Operating Plan has been submitted in accordance with the D.O.H. Bureau of Environmental Health Program, Chapter 64E-16, F.A.C.

Combustion air is drawn from the refuse tipping area (assisting in odor control) and conveyed through the gas side of the air preheater and into the refuse-fired generators where the waste is combusted. The units are fitted for lime and carbon injection via the flue gas. Exhaust gases from each refuse-fired combustors pass through heat recovery devices and are ducted to the air pollution control system which presently consists of a fabric filter manufactured by Joy Environmental Equipment. Treated gases are exhausted to the atmosphere via two existing 199-foot stacks, which share one support structure. Bottom ash from the furnaces is removed, quenched and processed for metal recovery and disposal.

The design output is 64,418 lbs/hr of steam at 830°F and 865 psig. The turbine powers a single 15.7-megawatt electric power generator. The electric power is introduced into the electrical grid and is purchased by the local power company.

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## 4.2 *Operating Window*

Ogden operates the plant within a so-called 115 percent “operating window,” or ~288 tons per day normalized around the previous nominal capacity of 250 tons per day at a waste heat content of 5,000 Btu per pound (Btu/lb). Because of the wide range in waste heat content, Ogden wishes to continue with sufficient flexibility to burn varied waste streams to achieve the desired steam production, particularly when waste heat content is low. This is a common and recognized industrial and regulatory practice. This permitting action will not revise the allowed operating window but will clarify maximum rated capacities of the units in terms of waste throughput, heat input and steam flow consistent with the above operating window.

## 5. RULE APPLICABILITY

This facility is located in Lake County, an area designated as attainment for all criteria pollutants in accordance with Rule 62-204.360, F.A.C.

Because the project, as proposed, is expected to reduce NO<sub>x</sub> air emissions it would not normally be considered a modification under Chapters 62-210 and 62-212, F.A.C. However the applicant plans to burn a more varied slate of wastes on one of the Emission Units. Therefore the project must be assessed for permitting requirements and preconstruction review requirements. Some of these changes, including the proposed emission limits and requested deletion of the VOC emission limit, prompt a permit modification whether or not the project constitutes a facility or source modification.

The main rules applicable to this project would be 40 CFR 60, Subpart Cb - Emission Guideline and Compliance Times for Municipal Waste Combustors That Are Constructed on or Before December 19, 1995 (the Emission Guideline), Rule 62-296.401(4), F.A.C. Biological Waste Incineration Facilities and Rule 62-296.416, F.A.C., Waste-to-Energy Facilities. Physical or operational changes made to an existing unit primarily for the purpose of compliance with the Emission Guideline are not considered in determining whether the unit is a modified or reconstructed facility under 40 CFR 60, Subparts Ea or Eb. The latter subparts are Standards of Performance for MWCs on which construction commenced after December 20, 1989 and September 20, 1994, respectively. The Emission Guideline and the other Subparts are all adopted by reference in Rule 62-204.800(7) and (8), F.A.C.

Based upon prior permitting actions, Emissions Unit 001 has been authorized to combust up to 2.15 TPH of boxed medical waste subject to certain requirements. This application requests the ability to burn the 2.15 TPH of medical waste in either unit, i.e. also in Emission Unit 002. Had the applicant requested authorization to increase the maximum amount of medical waste to be combusted at the facility (beyond the quantity previously allowed), the Department would have evaluated the request in a different light, placing additional emphasis on the requirements of Subpart Ce - Emission Guidelines and Compliance Times for Hospital/Medical/Infectious Waste Incinerators and Subpart Ec - Standards of Performance for Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996. These subparts will be considered in developing the Department’s Determination, and authorization of the request will require the applicant to satisfy the Department via permit conditions concerning the following issues:

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- 1) Characterization of the medical incinerator ash - Lead (lead bitewings from dentistry) and cadmium (the pigment used to color some red regulated medical waste bags and sharps containers) are two common contaminants requiring TCLP testing. Eight RCRA regulated metals should be analyzed (arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver). The fly ash, bottom ash and scrubber residuals should be analyzed while firing the maximum amount of medical waste immediately following an outage after which time all prior ash remnants have been removed and like-wise sampled. The applicant shall certify that these ash samples represent the 2 cases of “no medical waste incineration” and “maximum medical waste incineration”. Bottom ash, fly ash and scrubber residuals should be handled and stored in a manner that prevents mixing as well as entrainment in to ambient air. Ash disposal must be according to state and federal guidelines.
- 2) Transportation of medical waste - Shipping infectious substances requires coordinated action by the shipper, the transporter and the receiver to ensure safe transport. Packages must be prepared in such a fashion so as to present no hazard to persons or animals during conveyance. Rules exist concerning watertightness, boxing, etc. These requirements are detailed in 42 CFR 72 and 49 CFR 173.196. A certifying official must certify that the package is properly packed and ready for transport. Exempted from the regulated medical waste transport requirements are hazardous wastes identified or listed under the regulations in 40 CFR Part 261; household wastes as defined in 40 CFR 261.4(b)(1); ash from incineration of regulated medical waste once the incineration process has been completed; residues from treatment and destruction processes of regulated medical waste once the waste has been both treated and destroyed; animal waste generated in animal husbandry or food production; laundry or medical equipment that conforms to 29 CFR 1910.1030; and human corpses, remains, and anatomical parts that are intended for interment or cremation. In the event the package of regulated medical waste leaks during transport, the shipper, Federal and State authorities must be notified.
- 3) Personnel training - It is important to note that both OSHA and the EPA have specific training requirements for personnel handling hazardous materials and wastes. Training must be conducted by employers to comply with OSHA, EPA and DOT requirements. Additionally, the State of California has issued rules for operator training such as Section 93104, Title 17(b)(7), which states (in part) that “No person shall operate a medical waste incinerator unless each individual who operates or maintains the incinerator obtains either a certificate of training in medical waste incineration issued by the American Society of Mechanical Engineers within nine months of the commencement of the training program, or equivalent training as determined by the Air Pollution Control Officer. Copies of the training certificates for the operators and maintenance engineers shall be submitted to the districts and the original certificates shall be available for inspection at the facility with the permit to operate.” 40 CFR 60.53c additionally details operator training requirements.

Upon properly satisfying these issues, the Department determines that the total quantity of boxed medical waste received as segregated loads and burned at the facility shall not exceed 9% by weight, of the facility’s total fuel and can be burned in either unit (EU-001 or EU-002), but not simultaneously. Compliance with this limitation shall be determined by using a rolling 30-day average [in accordance with a specific condition of the permit]. The Department makes this determination on the following basis:

$$2.15 \text{ TPH} / 24 \text{ TPH capacity (for both incinerators)} = 9\%$$

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Facility: Ogden Martin Systems of Lake, Inc.

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These incinerators, when viewed together, are considered to be "co-fired" medical waste combustors, based upon the definition supplied in 40 CFR 60, Subparts Ec. This definition necessitates an enforceable requirement limiting the amount of medical waste combusted to 10% or less on a calendar quarter basis.

The Emission Guideline under 40 CFR 60 Subpart Cb, with which the facility will comply, was developed pursuant to Section 129 (Solid Waste Combustion) of the Clean Air Act as amended in 1990. It requires and achieves the same objectives as MACT for existing facilities.

This facility shall comply with all applicable provisions of the following guidelines and regulations:

- 40 CFR 60 Subpart Cb Emissions Guidelines and Compliance Times for Existing Municipal Waste Combustors Constructed on or Before December 19, 1995.
- 40 CFR 51 Subpart P Protection of Visibility.
- 40 CFR 60, Subpart Db Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units.
- 40 CFR 60, Subpart E Standards of Performance for Incinerators.
- 40 CFR 60, Subpart A General Provisions
- 40 CFR 64 Compliance Assurance Monitoring Rule
- 40 CFR 50 National Primary and Secondary Ambient Air Quality Standards

This facility is also subject to the applicable requirements related to used fuels and wastes given in 40 CFR 240, 40 CFR 279, 40 CFR 273 and 40 CFR 261, which are adopted by reference in Chapters 62-710, 62-737 and 62-730, F.A.C.

Biomedical waste storage requirements, as well as operational and contingency requirements found in Chapter 64E-16, F.A.C., shall be incorporated into the air construction and operation permits.

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The emission units affected by this revision 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:

Chapter 62-4	Permits.
Rule 62-204.220	Ambient Air Quality Protection
Rule 62-204.240	Ambient Air Quality Standards
Rule 62-204.260	Prevention of Significant Deterioration Increments
Rule 62-204.360	Designation of Prevention of Significant Deterioration Areas
Rule 62-204.800	Federal Regulations Adopted by Reference
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 62-210.700	Excess Emissions
Rule 62-210.900	Forms and Instructions
Rule 62-212.300	General Preconstruction Review Requirements
Rule 62-212.400	Prevention of Significant Deterioration
Chapter 62-213	Operation Permits for Major Sources of Air Pollution
Chapter 62-214	Requirements For Sources Subject To The Federal Acid Rain Program
Rule 62-296.320	General Pollutant Emission Limiting Standards
Rule 62-296.401	Incinerators
Rule 62-297.310	General Test Requirements
Rule 62-297.401	Compliance Test Methods
Rule 62-296.410(3)	Specific Emission Limiting and Performance Standards Requirements for Incinerators
Rule 62-296.416	Waste to Energy Facilities
Chapter 62-256	Open Burning and Frost Protection Fires
Rule 62-297.570	Test Reports
Rule 62-297.520	EPA Continuous Monitor Performance Specifications
Chapter 62-701	Solid Waste Management Facilities
Chapter 62-702	Solid Waste Combustor Ash Management
Chapter 62-710	Used Oil Management
Chapter 62-711	Waste Tire Rule
Chapter 62-730	Hazardous Waste
Chapter 62-737	The Management of Spent Mercury-Containing Lamps and Devices Destined for Recycling
Chapter 64E-16	Biomedical Waste Management Requirements

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## 6. PROJECTED EMISSIONS

### 6.1 Emission Limitations

The maximum allowable short-term emission limits for the facility (EU-001 and -002) before and after this permitting action are as follows:

Pollutant	Engineering	Existing	Recommended			
	Units	Permit	Subpart Cb	Subpart Ce	Subpart Ec	
PM	mg/dscm @ 7% O2		27	34	34	27 (annual test)
	percent opacity		10% (6 min. avg.)			10% (6 min. avg.)
	grains/dscf @ 12%CO2	0.015				
Cadmium	mg/dscm @ 7% O2	N/A	0.04	0.16	0.04	0.04 (annual test)
Lead	mg/dscm @ 7% O2		0.44	1.2	0.07	0.44 (annual test)
	grains/dscf @ 12%CO2	0.00031			0.0003	
Mercury	mg/dscm @ 7% O2		0.08 (FLA= 0.07)	0.55	0.55	0.07 (CEMS)
	percent reduction		85%	85%	85%	85% (annual test)
	grains/dscf @ 12%CO2	0.00034				
	Averaging period (hr)					24 hr. block
Sulfur Dioxide	percent reduction		75%			75% (annual test)
	ppmvd @ 7% O2		29	55	55	29 (CEMS)
	ppmvd @ 12% CO2	60				
	Averaging period (hr)	6	24			6
Hydrogen Chloride	percent reduction	90%	95%	93%	99%	95% (annual test)
	ppmvd @ 7% O2	50	29	100	15	29 (annual test)
Dioxins/Furans	ppmvd @ 7% O2	N/A				
	ng/dscm (grains/bdscf)		30	125 (55)	25(11)	25 (annual test)
Nitrogen Oxides	ppmvd @ 7% O2	385	205	250	250	205 (annual test)
	Averaging period (hr)		24			24 (CEMS)
Carbon Monoxide	ppmvd @ 7% O2	100	100	40	40	40 (annual test)
	Averaging period	1	4	4	4	4 (CEMS)
Fluoride	grains/dscf @ 12%CO2	0.0015	N/A	N/A	N/A	0.0015
						(5-year test)
Beryllium	grains/dscf @ 12%CO2	2.0 e-7	N/A	N/A	N/A	2.0 e-7
						(5-year test)
VOG	ppmvd @ 12% CO2	70	N/A	N/A	N/A	N/A

Note: CEMS = Continuous Emissions Monitoring System



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## 6.2 Recent Stack Test Results

The following is a summary of recent stack test results of Unit 2 while co-firing 2.15 tons per hour biohazardous waste and the comparison with the Department's proposed limits. As the table shows, where test results were taken, all were well below the applicable Subpart limits except for the NO<sub>x</sub> standard. It is expected pursuant to 40 CFR 52.21 (b)(2)(iii)(h), that this project, with limits as proposed by the Department, would not have significant increase in representative actual emissions of any pollutant. A selective non-catalytic system (SNCR) is to be installed for the control of NO<sub>x</sub>.

POLLUTANT	UNITS	EMISSIONS 002	Recommended limit (at 7% O <sub>2</sub> )
SO <sub>2</sub>	ppm @ 12 % CO <sub>2</sub>	2.2	29
NO <sub>x</sub>	ppm @ 12 % CO <sub>2</sub>	269.3	205
CO	ppm @ 7 % O <sub>2</sub>	21.7	40
PM	mg/dscm @ 7 % O <sub>2</sub>	1.3	27
Pb	mg/dscm @ 7 % O <sub>2</sub>	Not Checked	0.44
Hg	ug/dscm @ 7 % O <sub>2</sub>	16.4	70
Dioxins/Furans	ng/dscm @ 7 % O <sub>2</sub>	Not Checked	25
HCl	ppm @ 7 % O <sub>2</sub>	Not Checked	29
Cd	mg/dscm @ 7 % O <sub>2</sub>	Not Checked	0.04
Opacity	Percent	0%	10%

Source: Table 2.1 Summary of Source Test Results (4/98) as compared to Department's Recommended Limits. Ogden's request dated September 28, 1998.

## 6.3 Control Technology Review

There will be no change to the existing emissions control systems for acid gases and particulate matter. Each unit is equipped with a spray dryer adsorber and a fabric filter baghouse system. A selective non-catalytic reduction (SNCR) system will be installed to control NO<sub>x</sub> emissions. This facility will control mercury emissions by implementation of a mercury waste separation program as well as activated carbon injection. Additionally, a mercury CEMS will be installed to ensure continuous compliance with the mercury emissions limitation (required for reasonable assurance purposes, as the facility has had a recent mercury emissions non-compliance event). Quarterly testing for mercury emissions should additionally be required via the permit.

## 6.4 Emissions Summary

There will be no increase in air emissions as a result of this action.

# TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

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## 6.5 *Air Quality Analysis*

An air quality analysis was not required for this project.

## 7. CONCLUSION

Based on the foregoing technical evaluation of the application submitted by Ogden Martin Systems of Lake, Inc., the Department has made a preliminary determination that the proposed project will comply with all applicable state and federal air pollution regulations provided certain conditions are met. The Specific Conditions are listed in the attached draft permit amendment.

*Permit Engineer: Michael P. Halpin, P.E.*

*NSR Administrator: A.A. Linero, P.E.*

## *REFERENCES*

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<sup>1</sup> EPA- 453/R-95-0136 Municipal Waste Combustion, Background Information Document for Promulgated Standards and Guidelines- Public comments and Responses. October 1995.

# AIR CONSTRUCTION PERMIT MODIFICATION PSD-FL-113(A)

PSD-FL-113 is hereby modified as follows:

DRAFT

## PROJECT DESCRIPTION

For the construction of two (nominal) 250 ton-per-day combustors, which will be fueled by wood chips, and municipal waste and specified percentages of waste tires, boxed medical/infectious wastes (as defined in 40 CFR 60.51c and also referred to herein as biohazardous or biomedical waste, and regulated according to 64E-16, F.A.C.) and other non-hazardous non-Municipal Solid Waste (MSW), which can, by definition, include biohazardous waste. A specially designed conveyor is to be constructed to transport boxed biohazardous waste from tipping floor to combustor feed hopper so that biohazardous waste is not mixed with other municipal solid waste until it enters the feed hopper.

## SPECIFIC CONDITIONS

### 1. Municipal Waste Combustor

- a. Each of the two municipal waste combustors (MWC) shall have a design rated capacity of 250 tons Municipal Solid Waste (MSW) per day, 104 million BTU input per hour and 60,200 pounds steam output per hour with MSW having a heating value of 5,000 BTU per pound.
  - b. The maximum individual MWC throughput shall not exceed 288 tons per day, 120 million BTU per hour and 69,000 pounds steam per hour, (3-hour average).
  - c. The design furnace mean temperature at the fully mixed zone of the combustor shall be no less than 1,800°F for a combustion gas residence time of at least one second.
  - d. The normal operating range of the MWC shall be 80% to 115% of design rated capacity.
  - e. ~~The MWC shall be fueled with wood chips or municipal solid waste which can include biohazardous waste. Radioactive waste may not be burned unless the combustor has been issued a permit or the waste is such quantity to be exempt in accordance with Department of Health and Rehabilitative Services (HRS) Rule 10D-91 or 10D-104.003, F.A.C. Hazardous waste may not be burned unless the combustor has been issued a permit or the waste is of such quantity to be exempt in accordance with Department Rule 17-30, F.A.C. Other wastes shall not be burned without specific prior written approval of Florida DER.~~
- (1). The firing of non-hazardous waste contaminated with virgin or used oil products shall be allowed if the following conditions are met:
- A. The maximum percentage of oil-contaminated solid waste defined as oil spill cleanup debris and absorbing media, including oil filters, fired in the MWC shall be twenty (20) percent by weight of the total solid waste input, based on a rolling 30-day average. All "used oil" shall comply with the definition stated in 40 CFR 260.10 and shall not exceed the specification levels for arsenic, cadmium, chromium, lead, and total halogens contained in Table 1 of 40 CFR 261.3. The used oil shall have a polychlorinated biphenyl (PCB) content of less than 50 ppm (wt.)
  - B. Records shall be maintained showing the oil-contaminated waste generator's written certification that the waste is non-hazardous. Documentation requirements shall include a written description of the waste, a material characterization form (sample submitted with application), and the applicable material safety data sheets for the waste components. Tonnages of oil-contaminated solid waste fired shall be recorded and made available for inspection by the Department. These records shall be maintained for a period of ~~two~~ five years.
  - C. Quantities of used oil not commingled with solid waste may be burned provided that the oil has been generated entirely from internal operations of the OMS-Lake facility (i.e. no used oil in liquid form from outside generators). Records shall be maintained showing the tonnages of internally generated used oil fired.
  - D. The permittee shall comply with all applicable requirements of federal, state and local regulations including 40 CFR 261 (federal Hazardous Waste regulations), 40 CFR 279 (Federal Used-Oil

## AIR CONSTRUCTION PERMIT MODIFICATION PSD-FL-113(A)

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Management), Chapter 62-701, F.A.C. (Solid Waste Management Facilities), Chapter 710, F.A.C. (Used Oil Management Regulations), Chapter 62-730, F.A.C. (Hazardous Waste Regulations).

- (2). The firing of non-hazardous non-MSW waste shall be allowed if the following conditions are met. The facility operator shall prepare and maintain records concerning the types and quantities of all segregated loads of non-MSW material which are received and used as fuel at the facility, and subject to a percentage weight limitation, below. For the purposes of this permit, a segregated load is defined to mean a container or truck that is primarily or exclusively filled with a single item or type of waste material.
- A. To ensure that the facility's fuel does not adversely affect the facility's combustion process or emissions, the facility operator shall:
1. Comply with good combustion operating practices in accordance with 40 CFR 60.34b;
  2. Install, operate and maintain continuous emissions monitors (CEMS) for mercury as well as oxygen, carbon monoxide, sulfur dioxide, oxides of nitrogen and temperature in accordance with 40 CFR 60.58b; and
  3. Record and maintain the CEMS data in accordance with 40 CFR 60.59b.
  4. Where percentage limitations over a 30-day rolling average apply, the following method shall be used to demonstrate compliance:
    - a. Each day the total weight of the limited fuel shall be computed, and the daily total shall be added to the sum of the daily totals from the previous 29 days.
    - b. The resultant 30-day total weight of limited fuel shall be divided by the total weight of all waste materials received in the same 30-day period, and the resultant number shall be multiplied by 100 to express the ratio in percentage terms.
    - c. The percentage computed shall be compared to the percentage limitation.
    - d. These records shall be maintained at the site for a period of five years.
- B. The following non-MSW wastes are permitted for combustion with no percentage limitations:
1. Confidential, proprietary or special documents (including but not limited to business records, lottery tickets, event tickets, coupons and microfilm);
  2. Contraband that is being destroyed at the request of appropriately authorized local, state or federal governmental agencies, provided that such material is not an explosive, a propellant, a hazardous waste, or otherwise prohibited at the facility. For the purposes of this section, contraband includes but is not limited to drugs, narcotics, fruits, vegetables, plants, counterfeit money, and counterfeit consumer goods;
  3. Wood pallets, clean wood, and land clearing debris;
  4. Packaging materials and containers;
  5. Clothing, natural and synthetic fibers, fabric remnants, and similar debris, including but not limited to aprons and gloves; or
  6. Rugs, carpets, and floor coverings, but not asbestos-containing materials or polyethylene or polyurethane vinyl floor coverings.
- C. The following non-MSW wastes are permitted to be received as segregated loads and burned at the facility. The total quantity of this non-MSW waste shall not exceed 5% by weight, of the facility's total fuel. These wastes shall be either well mixed in the refuse pit or alternately charged with MSW in the hopper. Compliance with the percentage limitation shall be determined by using a 30-day rolling average:
1. Construction and demolition debris.

## AIR CONSTRUCTION PERMIT MODIFICATION PSD-FL-113(A)

2. Items suitable for human, plant or domesticated animal use, consumption or application where the item's shelf life has expired or the generator wishes to remove the items from the market. Such items or materials include but are not limited to off-specification or expired consumer products, pharmaceuticals, medications, health and personal care products cosmetics, foodstuffs, nutritional supplements, returned goods, and controlled substances.
  3. Consumer-packaged products intended for human use or application but not consumption. Such items or materials include but are not limited to carpet cleaners, household or bathroom cleaners, polishes, waxes and detergents.
  4. Waste materials that:
    - a. are generated in the manufacture of items in categories 2 or 3, above and are functionally or commercially useless (expired, rejected or spent); or
    - b. are not yet formed or packaged for commercial distribution.

Such items or materials must be substantially similar to other items or materials routinely found in MSW.
  5. Waste materials generated by manufacturing, industrial or agricultural activities, provided that these items or materials are substantially similar to items or materials that are found routinely in MSW, subject to prior approval of the Department.
- D. Boxed medical/infectious wastes (as defined in 40 CFR 60.51c) are permitted to be received and handled (as per 64E-16, F.A.C.) and burned at the facility. The total quantity of this waste shall not exceed 9.0% by weight, of the facility's total fuel and compliance with this limitation shall be determined by using a 30-day rolling average. These wastes shall be alternately charged with MSW in the hopper and combustion shall not occur simultaneously within Emissions Units 001 and 002. The following conditions shall also apply:
1. Storage of medical/infectious waste shall not exceed 30 days.
  2. Storage areas shall be designated in the written operating plan.
  3. Storage areas shall be located away from pedestrian traffic.
  4. Storage areas shall be constructed of smooth, easily cleanable materials that are impervious to liquids. Storage areas shall be vermin and insect-free, and shall be maintained in a sanitary condition.
  5. Outdoor storage areas, including containers and trailers, shall, in addition to the above criteria, be conspicuously marked with the international biological hazard symbol as described in paragraph 64E-16.004(2)(b), F.A.C., and shall be secured against vandalism and unauthorized entry. The international biological hazard symbol on an outdoor storage area shall be a minimum of six inches in diameter.
  6. An independent laboratory shall complete an initial TCLP characterization of the ash from combusting medical/infectious waste. A minimum of eight RCRA regulated metals should be analyzed (arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver). The fly ash, bottom ash and scrubber residuals should be individually analyzed while firing the maximum amount of medical/infectious waste immediately following an outage after which time all prior ash remnants have been removed and like-wise sampled. The applicant shall certify that these ash samples represent the 2 cases of "no medical/infectious waste incineration" and "maximum medical/infectious waste incineration" and forward the analyses to FDEP/Tallahassee within 90 days of firing medical/infectious waste in Emissions Unit 002. Bottom ash, fly ash and scrubber residuals should be handled and stored in a manner that prevents mixing as well as entrainment in to ambient air.
  7. Personnel shall be adequately trained to comply with applicable OSHA, EPA, DEP, DOH and DOT requirements. At any time during which medical/infectious waste is being combusted, a person in charge shall be present, who is certified by either the ASME or the EPA in medical/infectious waste incineration practices. Copies of current training certificates shall be

## AIR CONSTRUCTION PERMIT MODIFICATION PSD-FL-113(A)

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forwarded to the DEP Central District office and made available at the facility for inspection purposes.

8. Each load of medical/infectious waste materials, which is received for processing shall be documented as to waste description and weight. This shall be compared to the shipping records of each load and discrepancies noted. These records shall be maintained at the site for a period of five years. The weight of all waste materials received for processing shall be measured using the facility truck scale and recorded.
- E. Waste tires may be accepted and combusted, but may not exceed 3% of the facility's fuel. Compliance with this limitation shall be determined by using a 30-day rolling average. This authorized fuel shall be well mixed with MSW or alternately charged with MSW.
- F. Unless specifically listed above, the combustion of all other fuels shall be prohibited. Additionally, the following items are expressly forbidden from being combusted at this facility:
  1. those materials that are prohibited by state or federal law;
  2. those materials that are prohibited or not authorized by this permit;
  3. lead acid batteries;
  4. hazardous waste;
  5. nuclear waste;
  6. radioactive waste;
  7. sewage sludge;
  8. explosives; further, the facility shall not knowingly burn;
  9. Ni-cad batteries (pursuant to Section 403.7192(3), F.S.; and
  10. Hg containing devices and lamps (pursuant to Section 403.7186(2) and (3), F.S.

The permittee shall comply with all applicable requirements of federal, state and local regulations including 40 CFR 261 (Federal Hazardous Waste regulations), 40 CFR 279 (Federal Used Oil Management), Chapter 62-701, F.A.C. (Solid Waste Management Facilities), Chapter 62-702, F.A.C. (Solid Waste Combustor Ash Management), Chapter 62-710, F.A.C. (Used Oil Management Regulations), Chapter 62-711, F.A.C. (Waste Tire Rule), Chapter 62-730, F.A.C. (Hazardous Waste Regulations) and 62-737, F.A.C. (The Management of Spent Mercury-Containing Lamps and Devices Destined for Recycling). This facility is also subject to the applicable requirements related to wastes given in 40 CFR 273, which is adopted by reference in Chapter 62-737, F.A.C.

The permittee shall comply with biomedical waste storage requirements, as well as operational and contingency requirements found in Chapter 64E-16, F.A.C.

- f. Auxiliary fuel burners shall be fueled only with distillate fuel oil or gas (e.g., natural or propane). The annual capacity factor for fuel oil or gas shall be less than 10%, as determined by 40 CFR 60.43b(d). If the annual capacity factor for fuel oil or gas is greater than 10%, the facility shall be subject to 40 CFR 60.44b, standards for nitrogen oxides.
- g. Auxiliary fuel burner(s) shall be used at start up during the introduction of MSW fuel (other than biohazardous) until design furnace gas temperature is achieved. Incineration of biohazardous waste shall not begin until the combustion chamber temperature requirement of 1800°F is attained. All air pollution control and continuous emission monitoring equipment shall be operational and functioning properly prior to the incineration or ignition of waste and until all wastes are incinerated. During shut down, the combustion chamber temperature requirement shall be maintained using auxiliary burners until the wastes are completely combusted.
- h. The facility may operate continuously (8760 hrs/yr.).
- i. The combustor shall be fed so as to prevent opening the combustor to the room environment.
- j. The applicant shall submit a copy of a certificate verifying the incinerator operators' satisfactory completion of a Department-approved training program prior to issuance of the operating permit.

# AIR CONSTRUCTION PERMIT MODIFICATION PSD-FL-113(A)

## 2. Air pollution Control Equipment Design

- a. Each MWC shall be equipped with a particulate emission control device.
- b. Each MWC shall be equipped with an acid control device designed to remove at least ~~90~~ 95% of acid gases and ~~70~~ 75% sulfur dioxide emissions.
- c. The acid gas emission control system shall be designed to be capable of cooling flue gases to an average temperature not exceeding 300°F (3-hour rolling average).
- d. Each MWC shall be equipped with an SNCR designed to ensure that NO<sub>x</sub> emissions shall be less than 205 ppmvd at 7% O<sub>2</sub>.
- e. Each MWC shall be equipped with a carbon injection system designed to remove at least 85% of mercury emissions and result in a mercury emission rate of 0.07 mg/dscm or less at 7% O<sub>2</sub>.

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

- a. ~~Particulate: 0.0150 gr/dscf dry volume corrected to 12% CO<sub>2</sub> or 0.020 grains/dscf corrected to 7% O<sub>2</sub>, whichever is less.~~
- b. ~~Sulfur Dioxide: 60 ppmvd corrected to 12% CO<sub>2</sub>, 6-hour rolling average or 70% reduction of uncontrolled SO<sub>2</sub> emissions, 6-hour rolling average. Not to exceed 120 ppmvd corrected to 12% CO<sub>2</sub>, 6-hr rolling average.~~
- c. ~~Nitrogen Oxides: 385 ppmvd corrected to 12% CO<sub>2</sub>.~~
- d. ~~Carbon Monoxide: 100 ppmvd corrected to 7% O<sub>2</sub> on an hourly average basis.~~
- e. ~~VOC's: 70 ppmvd as carbon corrected to 12% O<sub>2</sub>~~
- f. ~~Lead:  $3.1 \times 10^{-4}$  gr/dscf corrected to 12% CO<sub>2</sub>.~~
- g. ~~Fluoride:  $1.5 \times 10^{-7}$  gr/dscf corrected to 12% CO<sub>2</sub>.~~
- h. ~~Beryllium:  $2.0 \times 10^{-7}$  gr/dscf corrected to 12% CO<sub>2</sub>.~~
- i. ~~Mercury:  $3.4 \times 10^{-4}$  gr/dscf corrected to 12% CO<sub>2</sub>.~~
- j. ~~Visible Emissions: Opacity of MWC emissions shall not exceed 15% opacity (6 min. average), except for one 6 min. period per hour of not more than 20% opacity. Excess emissions resulting from startup, shutdown, or malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions are minimized.~~
- k. ~~Hydrochloric Acid: 50 ppmvd, corrected to 7% O<sub>2</sub> on a three hour average basis; or shall be reduced by 90% by weight on an hourly average basis.~~

For each pollutant for which a continuous emissions monitoring system is required in Condition No. 5, the emission averaging time specified above shall be used to establish operating limits and reporting excess emissions.

Compliance with the permit emission limits shall be determined by EPA reference method tests included in 40 CFR Parts 60 and 61 and listed in Condition No. 4 of this permit or by equivalent methods approved by Florida DER.

## AIR CONSTRUCTION PERMIT MODIFICATION PSD-FL-113(A)

For the purpose of establishing specific increment consumption for TSP and SO<sub>2</sub> at the facility, an hourly emission rate shall be established for each pollutant at the time of performance testing using flue gas flow rates (corrected to 12% CO<sub>2</sub> and prorated to 115% rated furnace capacities) and the applicable concentration limits established above for TSP and SO<sub>2</sub>. Projected emissions are listed below:

Pollutant	Limit ppm or gr/dscf (a)	Projected Emissions	
		@100% lb/hr. <sup>(b)</sup>	@115% lb/hr (c)
Particulate	0.0150 gr/dscf	3.3	3.8
SO <sub>2</sub> <sup>(2)</sup>	60 ppmvd	15.5	17.8
	120 ppmvd	31.0	35.6
NO <sub>x</sub>	385 ppmvd	71.8	82.5
CO	100 ppmvd	11.3	13.1
VOC	70 ppmvd	3.4	3.9
Lead	3.1 x 10 <sup>-4</sup> gr/dscf	0.069	0.079
Fluoride	1.5 x 10 <sup>-2</sup>	0.33	0.38
Beryllium	2.0 x 10 <sup>-7</sup>	4.5 x 10 <sup>-5</sup>	5.1 x 10 <sup>-5</sup>
Mercury	3.4 x 10 <sup>-4</sup>	0.076	0.087
H <sub>2</sub> SO <sub>4</sub>		<0.42	<0.42

1. Conversion from concentration to mass emission rate assumes F<sub>c</sub> = 1,800 scf CO<sub>2</sub>/10<sup>6</sup> Btu for MSW fuel.
2. Proposed SO<sub>2</sub> limit: 60 ppm maximum expected emission. 120 ppm maximum allowed after 70% control without permit revision.  
Existing permit: 29.2 lb/hr 30-day rolling average 58.4 lb/hr short term maximum.

The units are subject to 40 CFR Part 60, Subpart E, and Subpart Db, New Source Performance Standards (NSPS), except that where requirements within the permit are more restrictive, the requirements of the permit shall apply.



## AIR CONSTRUCTION PERMIT MODIFICATION PSD-FL-113(A)

The following limits apply as a result of Permit Modification PSD-FL-113A (DEP File No. 0690046-002-AC) and implementation of 40 CFR Subpart Cb - Emission Guideline and Compliance Times for Municipal Waste Combustors That Are Constructed on or Before December 19, 1995.

Pollutant	Engineering Units	Past Permit	New Limits
Particulate Matter	mg/dscm @ 7% O <sub>2</sub>		27.0 (annual test)
	percent opacity	15%	10% (6 min. avg.) CEMS
	grains/dscf @ 12%CO <sub>2</sub>	0.015	
Cadmium	mg/dscm @ 7% O <sub>2</sub>	N/A	0.04 (annual test)
Lead	mg/dscm @ 7% O <sub>2</sub>		0.44 (annual test)
	grains/dscf @ 12%CO <sub>2</sub>	0.00031	
Mercury	mg/dscm @ 7% O <sub>2</sub>		0.07
	percent reduction		85% (quarterly test)
	grains/dscf @ 12%CO <sub>2</sub>	0.00034	
	Averaging period (hr)		24 hr. block (CEMS)
Sulfur Dioxide	percent reduction	70%	75% (annual test)
	ppmvd @ 7% O <sub>2</sub>		29.0
	ppmvd @ 12% CO <sub>2</sub>	60	
	Averaging period (hr)	6	6 hr. rolling (CEMS)
Hydrogen Chloride	percent reduction (hourly)	90%	95% (annual test)
	ppmvd @ 7% O <sub>2</sub>	50	29.0 (annual test)
Dioxins/Furans	ppmvd @ 7% O <sub>2</sub>	N/A	
	ng/dscm (grains/bdscf)		25.0 (annual test)
Nitrogen Oxides	ppmvd @ 7% O <sub>2</sub>	385	205.0 (annual test)
	Averaging period (hr)		24 hr. block (CEMS)
Ammonia Slip	ppmvd @ 7% O <sub>2</sub>	N/A	10 (annual test)
Carbon Monoxide	ppmvd @ 7% O <sub>2</sub>	100	40.0 (annual test)
	Averaging period	1	4 hr. rolling (CEMS)
Fluoride	grains/dscf @ 12%CO <sub>2</sub>	0.0015	0.0015
			(5 year test)
Beryllium	grains/dscf @ 12%CO <sub>2</sub>	2.0 e-7	2.0 e-7
			(5 year test)
VOC	ppmvd @ 12% CO <sub>2</sub>	70	N/A

Basis of "Revised Permit" column is TEPD dated 3/30/00.

#### 4. Compliance Tests

- a. Initial compliance tests for particulate matter, SO<sub>2</sub>, nitrogen oxides, CO, VOC, lead, fluorides, mercury and beryllium shall be conducted in accordance with 40 CFR 60.8 (a), (b), (d), (e), and (f).
- b. Annual compliance test(s) for particulate matter and nitrogen oxides shall be performed. Tests may be performed in the common stack.
- c. Compliance with the opacity standard shall be determined in accordance with 40 CFR 60.11(b) and (e).
- d. Compliance with the requirement for ~~70~~ 75% control of sulfur dioxide emissions will be determined by using the test methods in Condition 4.f. below or a continuous monitoring system for SO<sub>2</sub> emissions before and after the air pollution control equipment which meets the requirements of Performance Specification 2 of 40 CFR 60, Appendix B.

## AIR CONSTRUCTION PERMIT MODIFICATION PSD-FL-113(A)

- e. The compliance tests shall be conducted at the maximum capacity and at the maximum firing rate of each permitted fuel.
- f. The following test methods and procedures of 40 CFR parts 60 and 61 or equivalent methods having prior approval of Florida DERP shall be used for compliance testing:
  - (1) Method 1 for selection of sample site and sample traverses.
  - (2) Method 2 for determining stack gas flow rate.
  - (3) Method 3 or 3A for gas analysis for calculation of percent O<sub>2</sub> and CO<sub>2</sub>.
  - (4) Method 4 for determining stack gas moisture content to convert the flow rate from actual standard cubic feet to dry standard cubic feet.
  - (5) Method 5 or Method 17 for concentration of particulate matter.
  - (6) Method 9 for visible determination of the opacity of emissions as required in this permit in accordance with 40 CFR 60.11
  - (7) Method 6, 6C or 8 for concentration of SO<sub>2</sub>.
  - (8) Method 7, 7A, 7B, 7C, 7D or 7E for concentration of nitrogen oxides.
  - (9) Method 10 for determination of CO concentration.
  - (10) Method 12 for determination of lead concentration.
  - (11) Method 13B for determination of fluoride concentrations.
  - (12) Method 25 or 25A for determination of VOC concentration.
  - (13) Method ~~101A~~ 29 (as per 62-296.416, F.A.C.) for determination of mercury emission control rate.
  - (14) Method 104 for determination of beryllium emission rate.

### 5. Continuous Emission Monitoring Additional Compliance Requirements

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

- a. Each continuous emission monitoring system (CEMS) shall meet performance specifications of 40 CFR 60, Appendix B. The SO<sub>2</sub> CEMS sample point shall be located downstream of control devices for each unit.
- b. CEMS data shall be recorded during periods of startup, shutdown and malfunction but shall be excluded from emission averaging calculations for CO, SO<sub>2</sub> and opacity.
- c. A malfunction means any sudden and unavoidable failure of air pollution control equipment or process equipment to operate in a normal or usual manner. Failures that are caused entirely or in part by poor maintenance, careless operation or any other preventable upset condition or preventable upset condition or preventable equipment breakdown shall not be considered malfunctions.
- d. The procedures under 40 CFR 60.13 shall be followed for installation, evaluation and operation of all CEMS.
- e. Opacity monitoring system data shall be reduced to 6-minute averages, based on 36 or more data points, and gaseous CEMS data shall be reduced to 1-hour averages, based on 4 or more data points, in accordance with 40 CFR 60.13(h).
- f. Average CO<sub>2</sub>, Mercury, NO<sub>x</sub> and SO<sub>2</sub> emission concentrations, corrected for CO<sub>2</sub>, shall be computed in accordance with the appropriate averaging time periods included in Condition No. 3.
- g. For purposes of reports required under this permit, excess emissions are defined as any calculated average emission concentration, as determined pursuant to Condition No. 5 herein, which exceeds the applicable emission limit in Condition No. 3.

### 6. Operations Monitoring

- a. Devices shall be installed to continuously monitor and record steam production, furnace exit gas temperature (FEGT) and flue gas temperature at the exit of the acid gas control equipment. An FEGT to

## AIR CONSTRUCTION PERMIT MODIFICATION PSD-FL-113(A)

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combustion zone correlation shall be established to relate furnace temperature at the temperature monitor location to furnace temperature in the overfire air fully mixed zone.

- b. The furnace heat load shall be maintained between 80% and 115% of the design rated capacity during normal operations. The lower limit may be extended provided compliance with the carbon monoxide emissions limit and the FEGT within this permit at the extended turndown rate are achieved.

### 7. Reporting

- a. Fifteen (15) days prior notification of compliance test shall be given to the Florida DER district office.
  - b. The results of compliance test shall be submitted to the Florida DER District office within 45 days after completion of the test.
  - c. The owner or operator shall submit excess emission reports for any calendar quarter during which there are excess emissions from the facility. If there are no excess emissions during the calendar quarter, the owner or operator shall submit a report semiannually stating that no excess emissions occurred during the semiannual reporting period. The report shall include the following:
    - (1) The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factors used, and the date and time of commencement and completion of each period of excess emissions (60.7(c)(1)).
    - (2) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the furnace boiler system. The nature and cause of any malfunction (if known) and the corrective action taken or preventive measure adopted (60.7(c)(2)).
    - (3) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks, and the nature of the system repairs or adjustments (60.7(c)(3)).
    - (4) When no excess emissions have occurred or the continuous monitoring system has not been inoperative, repaired, or adjusted, such information shall be state in the report (60.7(c)(4)).
    - (5) The owner or operator shall maintain a file of all measurements, including continuous monitoring systems performance evaluations; monitoring systems or monitoring device calibration; checks; adjustments and maintenance performed on these systems or devices; and all other information required by this permit recorded in a permanent form suitable for inspection (60.7(d)).
8. The construction shall reasonably conform to the plans and schedule submitted in the application. If the permittee is unable to complete construction on schedule, the Department must be notified in writing 60 days prior to the expiration of the construction permit and submit a new schedule and request for an extension of the construction permit, (Rule 17-2, F.A.C.).

To obtain a permit to operate, the permittee must demonstrate compliance with the conditions of the construction permit and submit a complete application for an operating permit, including the application fee, along with compliance test results and Certificate of Completion, to the Department's District office 90 days prior to the expiration date of the construction permit. The permittee may continue to operate in compliance with all terms of the construction permit until its expiration date. Operation beyond the construction permit expiration date requires a valid permit to operate. (Rules 17-2 and 17-4, F.A.C.)

If the construction permit expires prior to the permittee requesting an extension or obtaining a permit to operate, then all activities at the project must cease and the permittee must apply for a new permit to construct which can take up to 90 days to process a complete application. (Rule 17-4, F.A.C.)

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

May xx, 2000

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

Mr. Gary Crane  
Executive Vice President  
Ogden Energy Group, Inc.  
40 Lane Road  
Fairfield, NJ 07004

Re: DEP File No. 0690046-002-AC; Permit No. PSD-FL-113A  
Ogden Martin Systems of Lake, Inc. / Lake County

Dear Mr. Crane:

The applicant, Ogden Energy Group, Inc., applied on September 29, 1998, to the Department for a modification to PSD permit number PSD-FL-113 for its Ogden Martin Systems of Lake, Inc. facility located in Lake County. The modification is primarily to clarify which materials and in what quantities the two existing incinerators are permitted to combust. Additionally, the applicant has requested certain permit changes related to the emissions of VOC, Beryllium, Fluorides and NO<sub>x</sub>.

The Department has reviewed the modification request. The referenced permit is hereby modified as shown in the attached document. All of the Specific Conditions of the original permit as previously amended are shown for purposes of clarity (strike-through and underline notation is used to denote changes prompted by this action):

A copy of this letter and the attachment shall be filed with the referenced permit and shall become part of the permit. This permit modification is issued pursuant to Chapter 403, Florida Statutes.

Any party to this order (permit modification) has the right to seek judicial review of it under Section 120.68, F.S., by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel, Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000, 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 must be filed within thirty days after this order is filed with the clerk of the Department.

Executed in Tallahassee, Florida.

\_\_\_\_\_  
Howard L. Rhodes, Director  
Division of Air Resources Management

**CERTIFICATE OF SERVICE**

The undersigned duly designated deputy agency clerk hereby certifies that this permit modification was sent by certified mail (\*) and copies were mailed by U.S. Mail before the close of business on \_\_\_\_\_ to the person(s) listed:

Mr. Gary K. Crane, Ogden Energy Group, Inc. \*  
Mr. Brian Bahor, Ogden Energy Group, Inc. \*  
Mr. David Crowe, Lake County Dept. of Solid Waste  
Mr. Len Kozlov, Central District  
Ms. Jan Rae Clark, FDEP  
Ms. Edith Coulter, FDOH  
Mr. Richard Shine, Landers & Parsons, P.A.  
Ms. Mary F. Smallwood, RMSS&R, P.A.  
Ms. Valerie Fachs, Lake County Attorney's Office  
Ms. Rhonda H. Gerber, Board of County Commissioners  
Mr. Doug Neeley, EPA  
Mr. John Bunyak, NPS

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.

\_\_\_\_\_  
(Clerk)

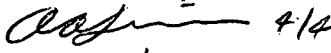
\_\_\_\_\_  
(Date)


# Memorandum

# Florida Department of Environmental Protection

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TO: Clair Fancy

THRU: Al Linero  4/14

FROM: Michael P. Halpin 

DATE: March 30, 2000

SUBJECT: Ogden Martin Systems of Lake, Inc.  
Ogden Martin Air Construction Permit modifications  
DEP File No. 0690046-002-AC, PSD-FL-113A

Attached is the public notice package for Ogden Martin Systems of Lake permit modifications. The applicant initially (1998) requested approval to combust 100% biomedical waste, among several miscellaneous changes to its PSD permit. The facility is presently permitted to burn 588 tons per day of waste material.

The switch to 100% bio-medical waste would have required both physical and operational changes that would have triggered PSD and BACT requirements. Instead, the applicant ultimately requested clarification that it may combust up to 2.15 tons per hour of this waste, and in either unit.

Review of this permit file represented a fair amount of effort, as a number of permit changes have occurred, largely via operating permits. Additionally, references to the terms biohazardous and biomedical existed within the permit, with no clear definition of either. In order to clarify the "fuels" and limits, for which the applicant is subjected to, I have re-drafted the A/C permit in entirety, showing those revisions that were made to the construction permit.

Of significance to this PSD permit modification, you should be aware that I have defined *medical/infectious* waste to be as defined in 40 CFR 60.51.c., I have set the throughput limit to be at 9% (rather than at a fixed tons per day) and have required a Mercury CEMS as well as quarterly testing. This was done on the basis of reasonable assurance, as the applicant has had a recent non-compliance with the mercury emission standard. Additionally, I am requiring alternate charging of the hoppers with MSW while combusting medical waste and not permitting its simultaneous combustion within both incinerators.

Given the past "authority" (via operating permit revisions) to combust 2.15 TPH of medical waste and the applicant's test submittals while combusting "biohazardous" waste there appears to be no potential to increase the annual emissions of regulated pollutants. The expired construction permit allowed combustion of "wood chips or municipal solid waste which can include biohazardous waste." This re-issued and modified permit will specify the amount of such waste that can be burned within the definition of "wood chips and MSW."

I recommend your approval of the attached Intent to Issue.

AAL/mph

Attachments