

OGDEN MARTIN SYSTEMS OF LEE, INC.

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

TEL: (201) 882-9000
FAX: (201) 882-4199



January 23, 1995

Lee County, Florida
2013 Altamont Ave.
Ft. Myers, FL 33901

Attention: L. Johnson

Reference: Lee County Solid Waste Resource Recovery Facility
Ft. Myers, Florida
Project C-1033, Our Ref. LE1549L

Subject: QUARTERLY PROGRESS REPORT NO. 9

Dear Larry,

Attached please find a copy of our quarterly progress report for the period covering October through December 1994 for your information and use.

Very truly yours,

L. Peter Young
Assistant Vice President -
Project Management

cc: P. Barbaccia - FDEP South District
S. Coughanour - SFWMD
D. Cerrato - Malcolm Pirnie
J. Kowal - OMSL
J. Treshler - OMSL
V. Badresingh - Ogden N.Y.
pf 7.2 Quarterly Report



Entered into
OCULUS
South District

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JAN 30 1995

D.E.P. South District

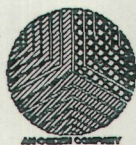
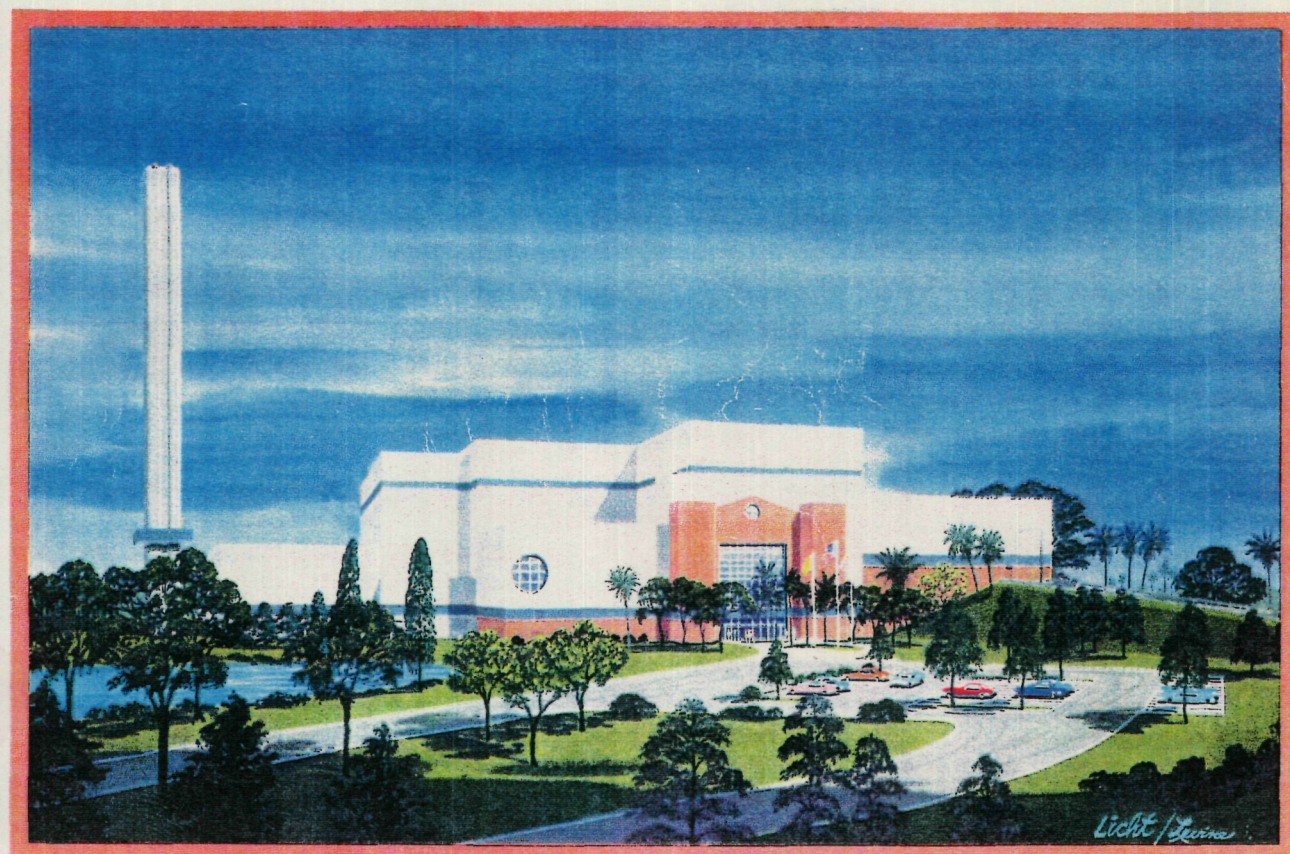
LEE COUNTY SOLID WASTE RESOURCE RECOVERY FACILITY

LEE COUNTY, FLORIDA

QUARTERLY PROGRESS REPORT

NO. 9

OCTOBER THROUGH DECEMBER 1994



OGDEN MARTIN SYSTEMS OF LEE, INC.

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LEE COUNTY SOLID WASTE RESOURCE RECOVERY FACILITY

OPI Project No. C-1033

QUARTERLY PROGRESS REPORT

No. 9

OCTOBER THROUGH DECEMBER 1994

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LEE COUNTY SOLID WASTE RESOURCE RECOVERY FACILITY

1. DESCRIPTION OF FACILITY

The Lee County Solid Waste Resource Recovery Facility (the "Facility") receives, stores, and burns Processible Waste and produces electricity. Ogden Martin Systems of Lee, Inc. ("the Company") is required to operate the Facility in accordance with applicable permits and environmental standards. The Facility's technology is a process generally known as "mass burning," in which solid waste is burned with little or no precombustion processing. Mass burn technology has been used successfully in Europe since the early 1900's and in the United States for over 20 years.

Site Description

The Facility site is a 46.4 acre portion of an approximately 300 acre tract of land owned by Lee County, Florida ("the County") located in Lee County, Florida, outside the city limits of Fort Myers, one mile east of the intersection of Interstate 75 and State Road 82. The land is zoned so that it may be used for a resource recovery facility.

The site is served by a potable water line, sewer line, and a reclaimed water line from the City of Fort Myers. An onsite well system is provided for limited standby process cooling water. Electricity for in-plant use is generated primarily by the Facility. The Facility is tied into the Florida Power & Light Corporation electrical grid at the onsite switchyard. Propane gas service is supplied from an onsite propane tank. Telephone service is supplied from the existing telephone lines.

Facility Operation

After being weighed, unprocessed Acceptable Waste will be delivered to a storage pit. From the pit, the waste will be lifted by one of two overhead cranes and placed into one of two combustion unit charging hoppers. Combustion will take place in two boilers with integral waterwall furnaces designed and furnished by Lancaster Distral Group. Each boiler has a design capacity of 600 tons of solid waste per day and operates independently of the other. From the charging hoppers solid waste will be passed downward through a feed chute and then pushed onto the stoker grates by a hydraulically operated ram feeder. To seal the feed chute from outside air infiltration and maintain control of the furnace draft, the hopper will be kept filled with solid waste.

LEE COUNTY SOLID WASTE RESOURCE RECOVERY FACILITY

1. DESCRIPTION OF FACILITY (continued)

In the furnace, reverse-reciprocating grates provide continued mixing, thus assisting in attaining thorough burnout of the Waste. Forced draft combustion air is supplied to the underside of the grate bars in volumes that are controlled to meet the local combustion conditions. The uniform air distribution also cools the grate bars to prolong grate bar life. Additional combustion air is introduced above the stoker at the front and rear walls of the furnaces. The resulting flame turbulence prevents the escape of unburned gases from the furnace. A Selection Non-Catalytic Reduction system is provided for NOx reduction by injecting ammonia into multiple temperature zones of the furnaces.

As the hot gases move through the boiler sections of each furnace, water in the boiler tubes is heated, and steam is generated. The steam is directed to a turbine-generator (manufactured by Mitsubishi) to produce electricity. Exhaust steam from the turbine-generator is condensed in a watercooled condenser. The electricity produced flows to the electrical switchgear and then over an interconnection line into the Florida Power & Light Corporation (FPL) distribution system. Approximately 35 megawatts of the 40 megawatts produced is sold to the local utility. After leaving the steam generators, the combustion gases pass through dry-flue gas scrubbers for removal of HCl and other acid gases and through baghouse-type fabric filters for removal of particulates prior to discharge through the 276-foot concrete square stack. Mercury abatement is provided by injection of carbon into the gas scrubbers. The air pollution control equipment was designed and furnished by ABB Environmental Systems.

Bottom ash and grate siftings are discharged into a water-quenched residue removal system. From the Martin ash discharger, cooled residue is moved via vibrating conveyors and a belt conveyor to an enclosed residue storage area for final disposal at a sanitary landfill. Facility includes equipment for the recovery of ferrous materials. The ash removal system is designed to handle any size material which can be delivered through the feed chute and across the grates. Ash from the air pollution control equipment is collected and conveyed to the ash removal system for handling and disposal together with the bottom ash.

LEE COUNTY SOLID WASTE RESOURCE RECOVERY FACILITY

1. DESCRIPTION OF FACILITY (continued)

The principal components of the Facility are the proprietary grate system, the overhead refuse cranes, the boilers, the dry-flue gas scrubbers, the baghouse type fabric filters, and the turbine-generator set. Auxiliary equipment is provided at a level of redundancy consistent with practices common within the power-generating industry.

The stoker grate system was designed and furnished by Martin GmbH. Martin GmbH has more than a quarter century of experience in the design, engineering, construction, and operation of systems for solid waste combustion and energy generation. There are over 172 plants with 343 Martin GmbH combustion units in operation or under construction. In the United States, there are presently twenty-two Ogden Martin facilities in operation.

Description of Operational Responsibilities

The Company has the responsibility to build, operate, maintain and repair the Facility. Operations, maintenance, and repair is performed through Ogden Services, Inc., a wholly-owned subsidiary of Ogden Corporation. Ogden Services is a service company, with over 40,000 employees, which was founded in 1888 and acquired by Ogden in 1982. Ogden Services provides operating, mechanical maintenance and housekeeping services for a variety of residential, commercial and institutional facilities. Mechanical maintenance and plant responsibilities include the operation of total energy systems, heating, ventilating and air conditioning plants; painting, plumbing, carpentry, electrical and other related services all utilizing programmed preventive maintenance techniques; installation, operation, maintenance and repair of production equipment; "turn-around" services; and receiving and shipping services in manufacturing and production plants and warehouses.

Facility Permits

The Florida Department of Environmental Protection (FDEP) issued its Power Plant Siting Certification for the Facility on June 16, 1992 and a permit for Prevention of Significant Deterioration (PSD) on July 20, 1992. These events were followed by Lee County completing negotiations on the Power Purchase Agreement with Florida Power & Light. With financing of the project completed prior to the issuance of permits Lee County provided Ogden notice-to-proceed with construction on October 28, 1992. Results of emissions testing, demonstrating compliance with permits, were submitted to the FDEP on December 8, 1994.

LEE COUNTY SOLID WASTE RESOURCE RECOVERY FACILITY

2. GENERAL PROJECT STATUS

The facility successfully completed its Acceptance Tests on October 26, 1994. The Acceptance Test report was delivered on November 29, 1994, and Lee County Accepted the facility on December 29, 1994 - two months ahead of schedule. The facility retroactively commenced commercial operations on December 1, 1994.

All construction activities have been completed except painting, HVAC system balancing, design changes to the APC enclosure steel, and other minor punch list work is nearly complete.

The facility has processed all of the available Processible Waste throughout the period. Normal operations are expected to continue.

LEE COUNTY SOLID WASTE RESOURCE RECOVERY FACILITY

3. MAJOR FUTURE EVENTS

1. Completion of all construction work.
2. Continuation of commercial operations.

LEE COUNTY SOLID WASTE RESOURCE RECOVERY FACILITY

4. KEY EVENTS SCHEDULE

<u>KEY EVENT</u>	<u>SCHEDULED</u>	<u>ACTUAL</u>	<u>MONTH OF CONSTRUCTION</u>
Notice to Proceed	---	10/28/92	0
Groundbreaking	---	10/29/92	1
Complete Refuse Pit Mat	03/15/93	04/15/93	5
Complete Refuse Pit to Grade	04/26/93	05/06/93	6
Start Stoker Erection	06/14/93	06/01/93	7
Start Boiler Erection	06/14/93	06/30/93	9
Turbine On Site	12/28/93	10/18/93	12
Generator On Site	12/28/93	11/02/93	13
Start Hydrostatic Test for Boilers	04/07/94	02/22/94	16
First Fire/Boilout	06/28/94	06/29/94	20
First Refuse Fire	08/12/94	08/24/94	22
Initial Generator Synchronization	09/02/94	09/02/94	23
Start Acceptance Testing	10/11/94	10/17/94	24
Target Acceptance Date	11/28/94	11/29/94	25
Scheduled Acceptance Date	01/27/95	----	27

LEE COUNTY SOLID WASTE RESOURCE RECOVERY FACILITY

5. PROBLEM AREAS/EXCEPTION REPORT

No problems exist or are anticipated that would jeopardize the timely completion of the Facility in accordance with the Construction Agreement.

LEE COUNTY SOLID WASTE RESOURCE RECOVERY FACILITY

6. PHOTOGRAPHS

LOOKING SOUTHEAST
TAKEN: DECEMBER 16, 1994



LOOKING NORTH
TAKEN: DECEMBER 16, 1994

