

CDM

environmental engineers, scientists,
planners, & management consultants

PM
10/17/87
Boston, Mass

Jul Copy

CAMP DRESSER & MCKEE INC.

One Center Plaza
Boston, Massachusetts 02108
617 742-5151

October 6, 1987

Mr. Tom Rogers
Meteorologist
State of Florida
Department of Environmental Regulation
Bureau of Air Quality Management
2600 Blair Stone Road
Twin Towers Office Building
Tallahassee, FL 32301

DER
OCT 12 1987
BAQM

Dear Mr. Rogers:

Camp Dresser and McKee Inc. (CDM) has been retained by Pasco County, Florida to assist in the preparation of a PSD permit application for the proposed Pasco County Resource Recovery Facility (RRF). At the request of DER, and to aid the Federal Land Manager, CDM has modeled PSD Class I increment consumption at the Chassahowitzka National Wildlife Refuge (NWR) located 27 km north-northwest of the proposed site. The purpose of this letter is to confirm that the modeling methodology used in this analysis is acceptable to DER. The modeling protocol was discussed with DER before conducting the analysis.

CDM used the source inventory from the Florida Crushed Stone Corporation PSD Permit Application (1982) as a basis for identifying PSD increment consuming sources. Sources in existence before December 27, 1977 are not increment consuming sources and do not need to be included in the Class I Increment analysis for the Pasco County RRF. As a result of our telephone conversations with you and Mr. Bill Thomas of DER-Tallahassee, the following sources were identified as pre-existing sources:

- o Gannon Generating Station Units 1 through 6,
- o Hookers Point Generating Station Units 1 through 3,
- o Bartow Generating Station Units 1 through 3,
- o Anclote Generating Station Units 1 and 2,
- o Big Ben Generating Station Units 1 through 3,
- o Evans Packing Company, and
- o Lykes-Pasco Company.

Mr. Tom Rogers
October 6, 1987
Page Two

Other pre-existing sources may also be included in the fourteen SO₂ and sixty-six TSP sources listed in Table 1, however no sources other than those listed above were excluded from the PSD Class I increment analysis.

The PSD Class I increment modeling was conducted in a manner that allowed for the use of previously compiled source data and ISCST input files. The modeling at Chassahowitzka NWR included the following elements:

1. Ten model receptors were positioned along the southernmost border of the Chassahowitzka NWR at 1 km intervals or the equivalent of two degrees of azimuth resolution.
2. All modeling analyses were conducted with allowable emission rates.
3. ISCST (UNAMAP Version 6) was employed for all modeling tasks.
4. Modeling was performed for the five-year (1970-74) meteorological data set.
5. Short-term PSD increment consumption by background sources at Chassahowitzka was modeled for all days of the five-year period on which the proposed source consumed at least five percent of the 3-hour and/or 24-hour SO₂ Class I increments.
6. Annual average PSD increment consumption modeling was performed with the full five years of hourly meteorological data.

The short-term increment consumption analysis was limited to days that the proposed source emissions consumed at least five percent of any Class I PSD increment for SO₂. Big Ben Unit 4, which accounts for 85 percent of the SO₂ emissions from all modeled sources, is nearly in direct alignment with the Pasco County RRF and the Chassahowitzka NWR. Thus, the days of maximum impacts for the Pasco County RRF should correspond to the days of maximum combined impacts for the other increment consuming sources. The results of the Class I SO₂ and TSP increment analysis are presented in Table 2 and Table 3, respectively. They demonstrate that Pasco County RRF will not contribute to an exceedance of the PSD Class I increment at the Chassahowitzka NWR.

Mr. Tom Rogers
October 6, 1987
Page Three

CDM is close to submitting the PSD Permit Application for the Pasco County RRF. To that end, we would appreciate your review of, and formal response to, the Class I Increment modeling methodology.

Please contact me at (617) 742-5151 as soon as possible with questions or for clarifications of the modeling procedure.

Sincerely,

CAMP DRESSER & MCKEE INC.



Raymond C. Porter
Air Quality Meteorologist

cc: David Dee, CFWES C&K, P.A.
Don Elias, RTP Env. Assoc.
Bob Hauser, CDM
Dan Strobridge, CDM
Ray Porter, CDM
Bill Thomas, DER-Tallahassee

Copied: Tom Rogers } 10/12/87 (mp)
Bill Thomas }

TABLE 1
 LOCAL TSP AND SO₂ SOURCES INCLUDED IN THE PSD CLASS I INCREMENT CONSUMPTION ANALYSIS

Source	Emission PM (Lb/Hr)	Rates SO ₂ (Lb/Hr)	Stack Height (Ft)	Stack Diam. (Ft)	Stack Velocity (FPS)	Gas Temp. (Deg F)	X Coord. (km)	Y Coord. (km)
FPC 11 05	667.7540		603.570	22.770	90.420	257.00	334.400	3204.510
DLS 6 Kiln 2	7.9400	10.3220	70.290	4.620	41.580	244.40	397.200	3182.600
DLS 6 Lime Dry	7.9400	59.5500	30.360	3.960	42.570	132.80	397.200	3182.600
DLS 6 Lime Cool	5.0816	0.0000	95.700	4.620	32.670	240.60	397.200	3182.600
DLS 6 CaCO ₃	1.5890	0.0000	55.110	1.650	47.520	105.80	397.200	3182.600
DLS 6 Misc	5.5590	0.0000	21.120	1.650	76.560	105.80	397.200	3182.600
DLS 6 Coal Handline	0.1588	0.0000	23.100	0.990	12.870	105.80	397.200	3182.600
DLS 6 Kiln 1	5.6374	10.3220	69.300	3.960	44.880	244.40	397.200	3182.600
DLS 6 Kiln 1 Dust	0.4764	0.0000	23.100	1.320	37.290	105.80	397.200	3182.600
TEC 15 Big Bend 4	130.0572	5198.3180	493.020	24.156	66.000	156.20	361.600	3075.000
FMM 8 Raw Material Storage	37.3180	0.0000	80.520	2.970	35.640	105.80	356.200	3169.900
FMM 8 Raw Material Grinding	37.3180	0.0000	80.520	2.970	35.640	105.80	356.200	3169.900
FMM 8 Kiln 1	37.3180	5.5580	75.570	9.900	35.640	260.60	356.200	3169.900
FMM 8 Cooler 1	34.1420	0.0000	80.520	7.590	31.680	217.40	356.200	3169.900
FMM 8 Clinker Grinding	35.7300	0.0000	82.500	2.970	52.140	105.80	356.200	3169.900
FMM 8 Clinker Silo 1	34.1420	0.0000	145.860	1.980	16.170	105.80	356.200	3169.900
FMM 8 Clay Crush 1	26.2020	16.6740	24.090	1.980	45.540	269.60	356.200	3169.900
FMM 8 Btm Blend	37.3180	0.0000	206.250	2.640	61.710	199.40	356.200	3169.900
FMM 8 Product Storage	34.1420	0.0000	135.960	2.970	34.650	105.80	356.200	3169.900
FMM 8 Masonry Silo (3)	2.3820	0.0000	211.200	2.310	50.160	145.40	356.200	3169.900
FMM 8 Kiln 2	21.5968	3.1760	90.420	16.170	25.080	386.60	356.200	3169.900
FMM 8 Cooler 2	7.1460	0.0000	50.160	7.590	72.270	379.20	356.200	3169.900
FMM 8 Clinker Silo (L07)	1.7468	0.0000	150.810	2.970	53.460	185.00	356.200	3169.900
FMM 8 Finish Mill 1 & 2	4.7640	0.0000	75.570	4.620	50.160	199.40	356.200	3169.900
FMM 8 Clay Crush 2	7.9400	0.0000	20.130	4.950	50.160	269.60	356.200	3169.900
FMM 8 Kiln Feed	0.7940	0.0000	90.420	1.650	44.550	129.20	356.200	3169.900
FCS 1 Clay Crush	1.0322	0.0000	25.080	2.310	40.260	105.80	360.044	3162.648
FCS 1 Limestone Conv	0.4764	0.0000	55.440	1.650	47.520	105.80	360.123	3162.379
FCS 1 Limestone Transfer	0.7940	0.0000	15.180	1.980	42.570	105.80	359.950	3162.477
FCS 1 Premix Bin	1.0322	0.0000	125.730	2.310	42.240	105.80	360.005	3162.337
FCS 1 Fly Ash Bin	1.0322	0.0000	125.730	2.310	42.240	105.80	360.017	3162.337
FCS 1 Kiln	94.3272	638.0504	201.300	14.190	43.230	244.40	360.009	3162.392
FCS 1 Raw Mat'l's Transfer	0.6352	0.0000	25.080	1.650	47.520	150.80	360.030	3162.335
FCS 1 Blend Silo	2.9378	0.0000	206.250	3.630	40.260	150.80	360.037	3162.312
FCS 1 Kiln Feed	1.2704	0.0000	50.160	2.640	34.320	150.80	360.044	3162.306
FCS 1 Cooler Discharge	0.6352	0.0000	9.900	1.650	47.520	150.80	360.086	3162.200
FCS 1 Clinker Silo L12	1.2704	0.0000	201.300	2.640	34.320	150.80	360.114	3162.137
FCS 1 Clinker Silo L13	1.2704	0.0000	201.300	2.640	34.320	150.80	360.108	3162.125
FCS 1 Clinker Silo Discharge	0.6352	0.0000	25.080	1.650	47.520	150.80	360.105	3162.125
FCS 1 Limestone Silo	0.3970	0.0000	25.080	1.320	40.920	105.80	360.105	3162.143
FCS 1 Cement Silo	1.0322	0.0000	25.080	1.980	42.570	150.80	360.123	3162.133
FCS 1 Finish Mill	5.5580	0.0000	100.650	4.950	39.270	199.40	360.111	3162.157
FCS 1 Cement Silo Discharge (4)	4.1280	0.0000	25.080	1.980	42.570	150.80	360.125	3162.100
FCS 1 Cement Silos (5)	7.7018	0.0000	201.300	2.640	40.920	150.80	360.125	3162.110
FCS 1 Packing Plant	1.2704	0.0000	55.440	2.640	34.320	105.80	360.155	3162.032
FCS 1 Masonry Silos (3)	3.8906	0.0000	80.520	2.640	34.320	150.80	360.147	3162.047
FCS 1 Raw Coal Bin	0.3970	0.0000	100.650	1.320	40.920	105.80	360.102	3162.210
FCS 1 Power Plant Coal Bin	0.3970	0.0000	100.650	1.320	40.920	105.80	360.080	3162.010
FCS 1 Oversum 5.10	3.9700	0.0000	25.080	1.320	40.920	105.80	360.080	3162.010

EVN 7 20493	0.0794	1.5880	40.260	1.320	30.030	379.40	383.300	3135.800
FPC 11 Fly Ash 1, 2, 3	68.1340	0.0000	7.920	0.990	24.420	199.40	334.400	3204.510
FPC 11 Fly Ash 3	36.5240	0.0000	93.720	1.650	153.120	150.80	334.400	3204.510
FPC 11 Fly Ash 4	35.7300	0.0000	35.310	1.980	1.650	150.80	334.400	3204.510
FMM 8 Blend Silo	2.3820	0.0000	221.430	2.640	61.710	199.40	356.200	3169.900
FMM 8 Raw Materials Feed	0.8734	0.0000	10.230	3.300	50.160	105.80	356.200	3169.900
2 Adams Construction	9.5280	58.7560	28.050	3.960	56.100	199.40	361.400	3163.400
4 Dairy Service Boiler	2.6996	37.3180	30.360	1.980	34.650	399.20	364.200	3159.300
4 Dairy Service Dryer	10.6396	37.3180	60.390	2.640	40.920	145.40	364.200	3159.300
5 Deltona	37.3180	11.1160	25.080	5.940	16.500	165.20	359.800	3164.000
13 Hernando Conc.	12.7040	0.0000	50.160	1.980	16.170	105.80	365.300	3159.300
18 West Coast Conc.	3.1760	0.0000	55.110	1.980	16.170	105.80	352.000	3157.000
3 Chem Line Calc.	21.6762	0.0000	90.420	3.960	15.510	114.80	359.400	3162.300
3 Chem Line Hyd.	14.0538	0.0000	20.130	3.960	14.520	105.80	359.400	3162.300
3 Chem Line Dryer	33.3480	0.0000	30.360	3.630	61.050	249.80	359.400	3162.300
3 Chem Line Boiler 1 & 2	0.0794	1.5880	35.310	0.660	48.180	300.20	359.400	3162.300
3 Chem Line Baggins	11.9894	0.0000	62.370	1.650	36.960	105.80	359.400	3162.300

Source: Florida DER (from the Florida Crushed Stone Corporation PSD Permit Application, 9/9/82).

TABLE 3

PASCO COUNTY BRF TSP MODELED IMPACTS AT THE CHASSAHOWITZKA NWR CLASS I AREA

(b)
Paired Maximum Impacts

<u>Year</u>	<u>Averaging Period</u>	<u>Julian Date</u>	<u>Receptor Reference Letter</u>	<u>Pasco Co. Impact (ug/m³)</u>	<u>Background Sources Impact (a) (ug/m³)</u>	<u>Total Impact (ug/m³)</u>	<u>Total as Percent of PSD Increment</u>
1970	annual (c)	NA	A	0.003	2.66	2.66	53
	24-hour	33	A	0.00	3.53	3.53	35
1971	annual	NA	A	0.004	2.44	2.44	49
	24-hour	234	D	0.02	3.61	3.63	36
1972	annual	NA	B	0.002	2.82	2.82	56
	24-hour	315	D	0.01	3.57	3.58	36
1973	annual	NA	A	0.003	2.46	2.46	49
	24-hour	183	I	0.02	5.25	5.27	53
1974	annual	NA	A	0.003	2.66	2.66	53
	24-hour	182	A	0.02	6.57	6.59	66

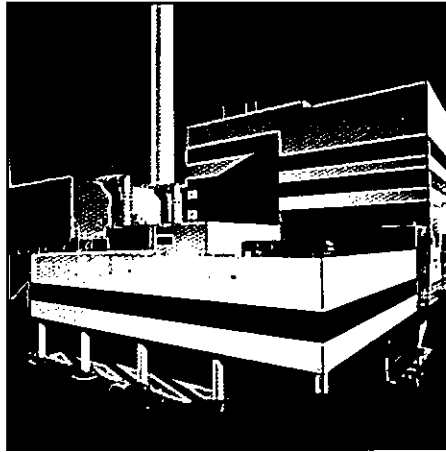
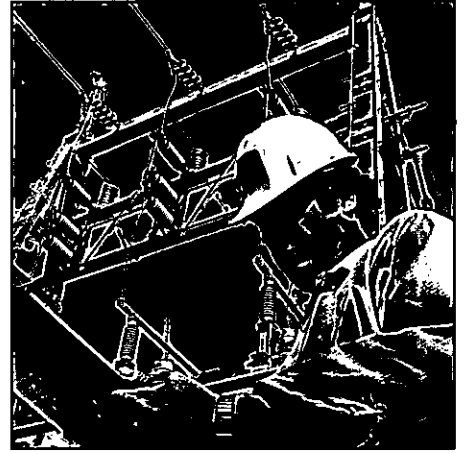
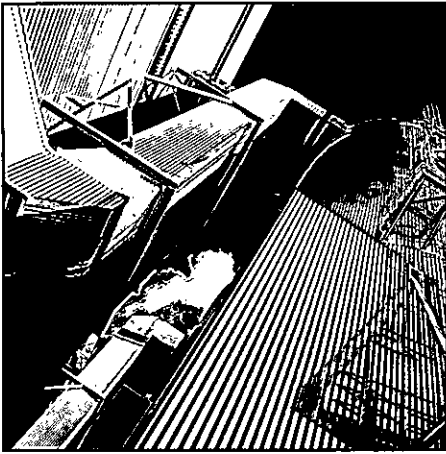
(%) = Percent of PSD Class I increment consumed; 24-hour and annual TSP increments are 10- and 5-ug/m³, respectively.

(a) Sixty-two TSP background sources were modeled.

(b) Maximum paired-in-space-and-time impacts. (See page 2 of letter.)

(c) Annual average concentrations were computed for the full 365- or 366-day duration.

NA = Not Applicable.



Ogden Waste Treatment Services An Overview

**OGDEN
PROJECTS, INC.**



AN OGDEN COMPANY

**Ogden Waste Treatment Services
An Overview**

Welcome...

INTRODUCTION

Ogden Corporation (Ogden), through its subsidiary, Ogden Projects, Inc. (OPI), is the unparalleled leader in developing and operating large-scale waste-to-energy facilities in North America, operating 28 projects across the United States. At these facilities, Ogden safely and efficiently disposes of more than 5% of the nation's municipal solid waste. The volume of waste remaining after combustion is reduced by up to 90%. The remaining ash residue is inert and can be safely landfilled or recycled. Collectively, the Ogden waste-to-energy facilities produce over 800 megawatts of electricity daily utilizing only waste materials as fuel.

The service Ogden offers in processing waste materials through its waste-to-energy facilities is multi-faceted. This waste disposal option offers an environmentally safe alternative for those materials which would otherwise be landfilled. Because the combustion process also recovers the energy value from the materials, waste-to-energy provides the ultimate recycling option. Waste-to-energy also assures complete destruction of the waste materials, eliminating future risk or liability from diversion, unintended reuse or exposure arising from environmental degradation.

HISTORY

Ogden's Supplemental Waste Program, managed through Ogden Waste Treatment Services USA, Inc. (OWTS) was a natural outgrowth of service to our client communities. The program began as a means to provide an environmentally safe and efficient alternative for managing nonhazardous, non-RCRA/non-TSCA-regulated, commercial and industrial wastes. These waste streams often require special handling to ensure safe and proper disposal. OWTS refers to these waste streams as "supplemental waste". These are waste streams brought to the waste-to-energy facility in addition -- as a supplement -- to the community's normal waste stream. This designation is also indicative of the special handling required due to the waste generator's need for confidentiality, assured destruction and environmental safety. The waste generator also pays a higher price for this disposal service. Fourteen Ogden waste-to-energy facilities currently participate in the Supplemental Waste Program and in the near future, there will be a total of 16 facilities accepting supplemental waste.

ADVANTAGES

The community benefits from the Supplemental Waste Program in two ways. First, the community is assured that these types of waste streams are handled safely, efficiently and with no adverse impacts to the community or the local environment. Second, the community receives additional revenue from wastes handled in the Supplemental Waste Program.

For the waste generator, waste-to-energy offers several important advantages over other disposal methods for these waste streams:

- ▶ recycling of the waste product through energy recovery
- ▶ assured destruction
- ▶ strict environmental compliance at all levels
- ▶ confidentiality and security

At each of our facilities, Ogden has consistently demonstrated its commitment to superior environmental performance, quality long-term operations and exceptional service to its clients and client communities.

THE APPROVAL PROCESS

When OWTS receives a request for supplemental waste disposal, the waste material is put through a stringent review process to properly assess the appropriate method for managing and processing the waste stream. Based on information provided by the waste generator on the Material Characterization Forms, Ogden profiles and characterizes the waste material to make sure that it can be safely received, handled and combusted in compliance with all applicable state, local and plant specific regulatory and operational guidelines.

THE ENVIRONMENTAL REVIEW

During the environmental review process, the waste is evaluated in regard to the specific permit conditions of the facilities intended to receive the waste. The waste characterization is reviewed to ensure the materials are nonhazardous. Then the specific chemical characteristics are assessed to confirm that the combustion and air pollution control systems at the selected facility can effectively manage those elements to keep the facility within its permitted operating parameters and without impacting the allowable facility emission levels.

THE HEALTH AND SAFETY REVIEW

Once the environmental review process has been successfully completed, a Health and Safety review is conducted. This review focuses on work exposures and the impacts to the health and/or safety of any staff handling the material prior to disposal. This review includes possible effects from direct exposure to the material as well as fugitive dust or emission problems which might be encountered. In most cases, any potential risks associated with a specific waste material can be greatly minimized or eliminated through proper handling of the material.

The last step in the approval process is review by the manager of the facility designated to receive the waste. The facility manager reviews the application to assess any special handling or logistical concerns. It is important for the waste material to be handled safely and without adverse impact on the facility operations.

GUARANTEES

OWTS, through Ogden, guarantees that all waste materials managed in the Supplemental Waste Program will be totally combusted and the energy value recovered into steam or electricity. OWTS, through Ogden, also guarantees that the waste will be handled safely and in compliance with all environmental regulations. These facilities operate under stringent environmental requirements and emissions are continuously monitored. The waste-to-energy disposal process provides safe, secure, confidential and assured destruction of your waste materials.

SUMMARY

Since its inception over six years ago, the Supplemental Waste Program has become a successful part of Ogden's strategy to expand our services to clients. Our reputation for service and performance continues to grow through the efforts of our dedicated personnel. Likewise, the Supplemental Waste Program advances in scope with the demand for superior, environmentally responsible nonhazardous waste disposal services.

*An Overview of Procedures
and Policies...*

PREFACE

This document summarizes the procedures for disposal of nonhazardous, non-RCRA/non-TSCA-regulated wastes in Ogden's Supplemental Waste Program managed by Ogden Waste Treatment Services USA, Inc. (OWTS). The following is an overview of the entire process from the waste disposal request and profile through confirmation of destruction.

Ogden, through OWTS, provides this information to clients considering our waste management and assured destruction services. A full staff of sales managers, customer and technical service representatives, transportation personnel and disposal facility personnel stand ready to assist you in understanding and implementing these procedures. If you have any questions or require additional information, please contact your Regional Sales Manager or the Customer and Technical Services Department in Fairfield, New Jersey (201-882-7088).

PROFILING THE WASTE STREAM

1. Written Request

The process begins when you or your authorized representative submit a written request to dispose of waste at one of our facilities. The request should include:

- o The waste-to-energy (WTE) facility requested for delivery;
- o The origin and type of waste to be presented for disposal;
- o The amount of waste to be delivered over what period of time;
- o How the waste will be packaged (container type) and delivery method;
- o OWTS' waste classification, if known;
- o Detailed description of the generator and the process which created the waste;
- o Contact name and telephone number.

A brief description of the waste is also helpful in characterizing the waste stream. For example:

Material Safety Data Sheets are for original contents of empty container and represent residual amounts.

Clean-up materials from a product spill including virgin product and absorbent (described).

Pharmaceutical product returns, expired or short dated.

Production waste product in finished form and QC samples.

Finally, the request must be signed by the generator or an authorized representative with knowledge of the waste to be processed.

2. Itemized List

If your request involves more than one type of waste, a list should be provided showing all waste materials to be presented for disposal. For consumer packaged deliveries, a listing of the material names is sufficient. For all other requests, the listing must include the name of the material and the OWTS classification. This list will provide a summary for those evaluating the waste stream(s) for disposal. It will also be used for visual inspections during delivery of the waste and eliminate the need for samples, except on special request.

3. *OWTS Material Characterization Form (MCF)*

A Material Characterization Form (MCF) must be completed for each component of the waste stream. Because these forms are an essential tool in characterizing waste streams, accuracy and attention to detail are very important. Percent active and inactive ingredients must be provided. Packaging and pallets should not be listed as inactive ingredients. The MCF must be signed by the generator or an authorized representative with knowledge of the waste. Incomplete forms cannot be evaluated and delay the approval process.

4. *Supporting Documents*

Each waste material to be delivered for disposal should be accompanied by a Material Safety Data Sheet (MSDS) or product insert. If an MSDS or product insert is not available, a written analysis of the material from an approved laboratory will be required. In some cases, a written laboratory analysis may be required even though an MSDS and/or product insert is available. This is determined on a case by case basis by OWTS staff. All supporting paperwork must be legible, complete and current.

OWTS SUPPLEMENTAL WASTE CLASSIFICATIONS

Ogden, through OWTS has developed a standard waste classification system to assist in characterizing waste delivered for disposal as part of the Supplemental Waste Program. Understanding these classifications is important to facilitate waste stream review, approval, handling, labeling, inspection and processing. These classifications are as follows:

CLASS A CONSUMER PACKAGED PRODUCTS: Over the counter and prescription pharmaceuticals, health care products and consumer products in original consumer packaging over packed in boxes or fiber drums, palletized and shrink-wrapped.

CLASS B BULK POWDERS AND DUSTY SOLIDS

CLASS B1 BULK POWDER: Powders that are purely 100% active or 100% inactive ingredients.

CLASS B2 BULK POWDER PRODUCTS: Powders, dusts, and granules in bulk form which are a formula or mixture of materials. Typically these are in the form of materials found prior to final pressing, encapsulation or other packaging processes. These may include off spec, rejected or expired formulations.

CLASS B3 BULK POWDER INTERMEDIATE WASTE: Powders, dusts and granules which consist of a combination of active and inactive ingredients, class B2 materials, rejected pressed pills and capsules and clean-up materials (tyvek, rags, etc.) used in the clean up of the manufacturing process or from a dust collection system.

CLASS C BULK PRESSED TABLETS AND CAPSULES: Completed products not in consumer package (no dust).

CLASS D BULK CREAMS, LIQUIDS, PASTES AND SOLIDS IN DRUMS, TOTES AND BULK TANK TRUCKS: These materials are flowable, non-dusting bulk products, ingredients and raw materials (no consumer packaging).

CLASS E PRODUCTION, INDUSTRIAL AND OILY DEBRIS: Manufacturing scraps contaminated with less than 1% Class B1, B2, B3 and D. Material may include plastic containers, paper bags, cardboard, tyvec, etc. Debris may include, filter media, filter cakes, absorbents, containers, oil filters and general trash.

CLASS F NONHAZARDOUS REPACKED MATERIALS: Small quantities of reagent grade, off spec, unused or discarded nonhazardous laboratory chemicals and QA/QC samples of products that have been designated as nonhazardous waste for disposal. These materials will be in laboratory type containers of five gallon size or smaller as specified by the approval. These five gallon and smaller packages will be over packed in 55 gallon and smaller fiber/poly/steel drums and gaylor boxes.

WASTE APPROVAL AND CONTRACTING

Once a waste stream is approved for disposal at an Ogden facility, an OWTS Supplemental Waste Request Response Form is issued confirming approval. The form also indicates the facility designated for disposal, the staff contact, instructions for delivering the waste material and any other pertinent information. An OWTS Waste Disposal Agreement (Contract) is also provided. Once this form is completed by both parties and on file, you may schedule waste disposal.

WASTE LABELING

Accurate labeling of supplemental waste in preparation for delivery to an Ogden WTE facility is key to our on-going quality assurance program. Proper processing, as determined by the Supplemental Waste Review, often depends on accurate labeling and segregation of a load. For example, an OWTS approval may stipulate specific handling for certain materials based on health and safety concerns, environmental issues, OSHA requirements, etc. To ensure proper handling and processing, those materials must be clearly labeled and segregated from other materials in the delivery vehicle.

Each movable unit must be labeled and may consist of the following:

- A box, drum, cubic yard (gaylord) box or bag (supersac)
- A palletized and shrink wrapped set of boxes or drums
- A dumpster, roll-off or dump trailer

Labeling must include the following on each unit:

- A Nonhazardous or Non-RCRA regulated label
- The name of the waste(s) contained within the individual unit
- The corresponding OWTS approval number(s)
- The corresponding OWTS classification marked in six (6) inch letters

If the packaging container has any additional markings or labeling from previous use which are not applicable to the waste, these markings/labels must be completely covered or removed.

The Supplemental Waste approval process will, from time to time, specify a packaging size or weight which is necessary for managing the feed rate of the material, and/or when manual feeding is involved, to meet OSHA requirements. The OWTS Supplemental Waste Request Response Form or the attached Supplemental Waste Tracking Form will detail any need to limit packaging size or weight.

ASSURED DESTRUCTION - SECURITY PROCEDURES

The Ogden Supplemental Waste Program, managed by OWTS, provides guaranteed destruction for our clients by utilizing the complete combustion systems available within Ogden's Waste-to-Energy facilities. The following options are available to address your additional security needs.

1. Witness Destruction

Disposal of OWTS-approved nonhazardous materials can be personally witnessed by the waste generator's personnel. Witness destruction typically provides direct feeding of the materials into the combustion hopper. Disposal can also be witnessed by a contracted third party security firm. The third party witnesses the delivery and disposal of materials on your behalf. Third party witnessing can include direct feeding of the materials to the combustor or a pit delivery and feed to the combustor. Third party witnessing can be arranged directly with a security firm or OWTS can coordinate this witness. Disposal rate is determined by the type of feed requested.

2. Standard Assured Destruction Deliveries

All deliveries of OWTS-approved supplemental wastes which are identified for assured destruction are managed for secure disposal at the point of disposal. It is recommended that minimally a "coded seal" be placed on the door of the trailer. Upon request, OWTS will provide as a portion of a standard delivery:

1. Confirmation of seal number
2. Return of seal for verification

If special seals are to be provided - locks, bolts, etc. - which require either special equipment or combinations for removal, please notify the scheduling coordinator of your individual security needs. Execution of confirming paper work will be returned per any specific instructions on the Preshipment Notification Form.

SCHEDULING DELIVERY / TRANSPORTATION

When delivering approved waste materials to an Ogden facility, you have the option of arranging your own transportation or allowing OWTS to coordinate transportation services on your behalf.

1. Scheduling Delivery Using Your Own Transportation

To schedule a delivery, an OWTS Preshipment Notification Form should be forwarded to the Facility Supplemental Waste Coordinator. The coordinator will review and confirm with the requestor a schedule for acceptance of the waste. Receipt of the Preshipment Request must be acknowledged by OWTS and the delivery schedule confirmed prior to dispatching any waste materials to an Ogden facility.

It is recommended that you schedule with OWTS prior to confirming a date with your transporter. This will avoid potential scheduling conflicts.

Upon receipt of the Preshipment Notification, the Supplemental Waste Coordinator compares the Notification to the Supplemental Waste Request Response Form and the original package reviewed through the OWTS approvals process. If additional equipment, manpower or any other special requirements are noted, adequate time exists to make those arrangements. The Notification includes the following information regarding the waste(s) to be delivered:

- Identification of all waste(s)
- Approximate amount of each waste
- The OWTS Classification of each waste
- Approval number for each waste
- Special handling or feed requirements

2. Scheduling Delivery Using OWTS to Coordinate Transportation

To schedule a waste pick up from your site, a Transportation Request Form (TRF) must be completed and faxed to the appropriate Technical Service Representative in Fairfield. The TRF must be received by the Technical Service Representative a minimum of 72 hours prior to the requested pick up time. (Not including weekends or holidays). The TRF must specify:

- Pick-up Dates (minimum of 2 dates)
- Pick-up Time (provide a range of hours)
- Address(es) (provide billing and warehouse locations)
- Directions to Pick-up location (specific detail for transporter)
- Waste Stream Details (same as required for deliveries)
- Miscellaneous information to assist in successful pick up and delivery of waste

Upon receipt of a completed TRF, the Technical Service Representative will schedule the waste pick up and delivery to the designated Ogden facility and provide written confirmation of the arrangements to the requestor.

OWTS will make available Nonhazardous Waste Transportation Manifests to our clients who request them as a part of the Transportation Service. If requested, the Transportation Coordinator will forward a Transportation Manifest to the client's location for use with the shipment. The client will be responsible for completion and signature as "waste generator".

OWTS will provide guidance to clients to complete manifests or bills of lading up to and including the preparation of such forms on the client's behalf, if requested by the client, provided that in all cases the forms are reviewed and signed by the client, attesting to their accuracy.

All shipments must conform to all applicable federal and state regulations as well as the conditions specified in the OWTS Waste Disposal Agreement and the Supplemental Waste Request Response Form.

WASTE RECEIVING

1. Supplemental Waste Deliveries

OWTS Supplemental Waste Coordinators schedule specific delivery times to minimize delays and accommodate QA/QC of the materials. Facility scale house hours vary and availability of dedicated manpower and equipment require that all deliveries arrive during scheduled times.

After weighing in at the scale house, the vehicle proceeds to a location designated by the receiving person at the facility for review of the Bill of Lading, the Preshipment Notification and any other documentation accompanying the loads. Once paperwork has been received and verified, the truck will be directed to an unloading location. This will be out of the way of normal traffic and provide adequate area for movement of materials and personnel. The Ogden facility will provide a pallet jack, fork lift and an equipment operator to assist with off-loading. Some locations also have a truck height dock. Upon request and at additional cost, Ogden will provide additional labor for off-loading and conveyors or other equipment which may be required for unloading.

In addition to the requirements set forth in the Supplemental Waste Disposal Agreement, when a truck height dock is not available, it is the responsibility of the transporter to deliver the materials to the tail of the truck for off-loading and inspection by Ogden personnel. Facility personnel will follow their Standard Operating Procedures and all Supplemental Waste Safety Procedures in the inspection of incoming materials. All materials are to be inspected after being removed from the vehicle. Palletized materials delivered in self-unloading (walking-floor) vehicles must be manually removed to minimize breakage and to facilitate reloading in the event unacceptable materials are present.

2. Processing Of Waste Materials

All materials are managed at the Ogden WTE facility site according to the specifications and instructions in the Supplemental Waste Approval Package. This includes selected feed rates and method of feed (hopper feeding, pit feeding, etc.). This will ensure the safest handling and management of each waste. During a witness disposal, this also includes opening containers to verify their contents. As presented in the Security Procedures section, the OWTS Supplemental Waste Coordinator will verify the integrity of seals upon arrival, open them, and, if requested, return security seals to the client.

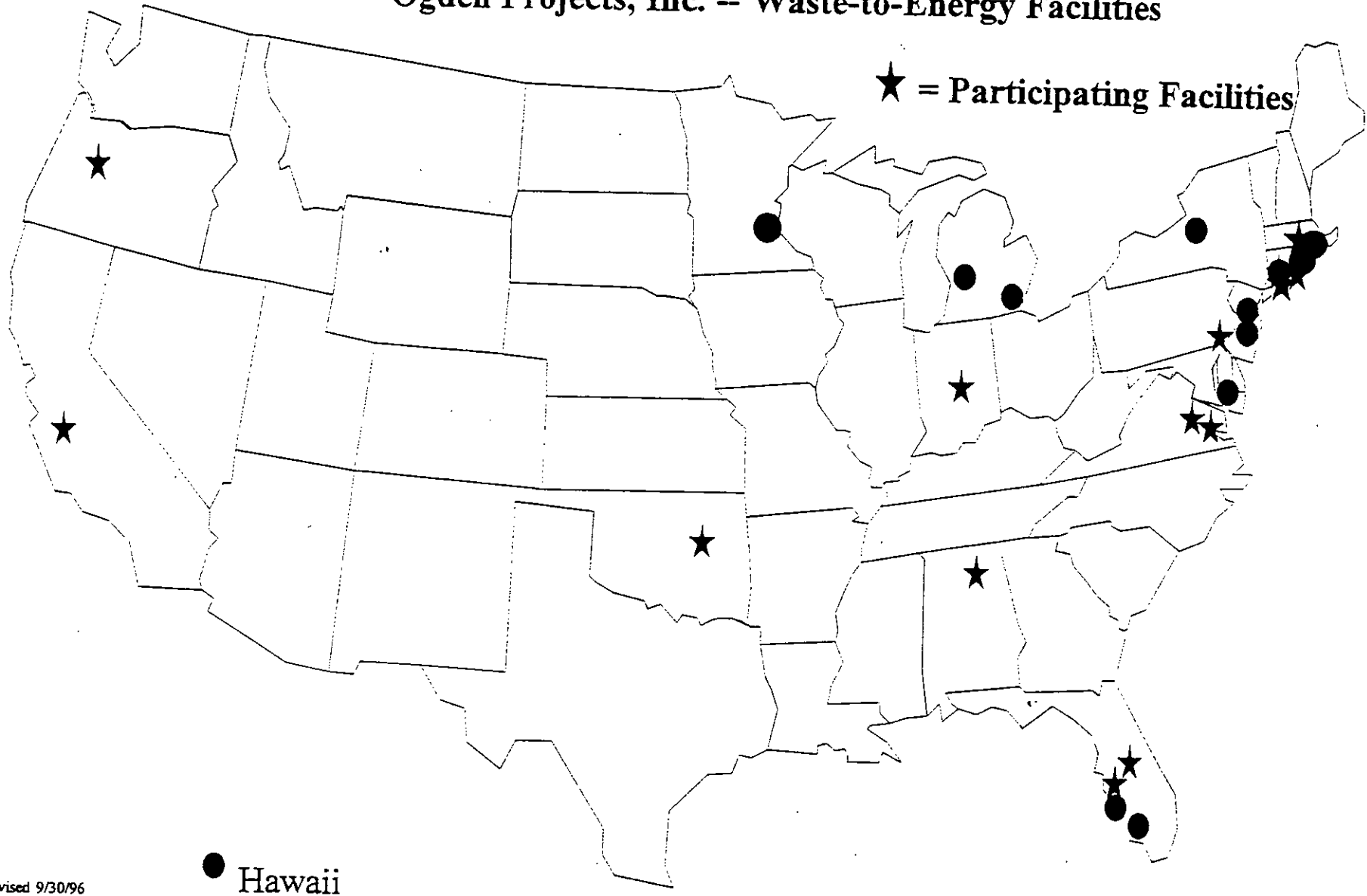
For those wastes designated for direct hopper feeding, the wastes will be destroyed within 24 hours of receipt. For those being witnessed, wastes will be fed as quickly as possible, based on the Ogden and OWTS processing requirements. For wastes designated for pit delivery, they will be pushed into the pit immediately after QC is conducted confirming their approval.

3. Certificate of Destruction

Certificates of Destruction will be provided when requested by the client on the 24 Hour Preshipment Notification.

Revised 9/6/96

Ogden Projects, Inc. -- Waste-to-Energy Facilities



Revised 9/30/96

Facilities Currently Participating in the Ogden Supplemental Waste Program

Ogden Martin Systems of Alexandria/Arlington, Inc.

5301 Eisenhower Ave.

Alexandria, VA 22304

Contact Person: Pat Canniff
(703) 690-6860

Ogden Martin Systems of Babylon, Inc.

125 Gleam Street

West Babylon, NY 11704

Contact Person: Gary Billingham
(516) 491-1976

Ogden Martin Systems of Fairfax, Inc.

9896 Furnace Rd.

Lorton, VA 22079

Contact Person: Pat Canniff (at Alexandria)
(703) 690-6860

Ogden Martin Systems of Haverhill, Inc.

100 Recovery Way

Haverhill, MA 01835

Contact Person: Ron Godbout
(508) 372-6288

Ogden Martin Systems of Huntington, LP

99 Town Line Rd.

East Northport, NY 11731

Contact Person: Gary Billingham (at Babylon)
(516) 491-1976

Ogden Martin Systems of Huntsville

5251 Triana Blvd.

Huntsville, AL 35805

Contact Person: Oscar Allen
(205) 882-1019

Ogden Martin Systems of Wallingford, LP

530 South Cherry St.

Wallingford, CT 06492

Contact Person: Jim Klemes
(203) 294-1649

Ogden Martin Systems of Indianapolis, Inc.

2320 So. Harding St.

Indianapolis, IN 46221

Contact Person: Brian Foster
(317) 634-7367

Ogden Martin Systems of Lake, Inc.

3830 Rogers Industrial Park Rd.

Okahumpka, FL 34762

Contact Person: Cheri Coniglio
(904) 365-1611

Ogden Martin Systems of Marion, Inc.

4850 Brooklake Rd. NE

P.O. Box 9126

Brooks, OR 97305

Contact Person: Darby Randklev
(503) 393-0890

Ogden Martin Systems of Pasco, Inc.

14230 Hays Road

Spring Hills, FL 34610

Contact Person: Mark Ervin
(813) 856-2917

Ogden Martin Systems of Stanislaus, Inc.

4040 Fink Road, P O Box 278

Crows Landing, CA 95313

Contact Person: Karen Henry
(209) 837-4423

Ogden Projects of Tulsa, Inc.

2121 S. Yukon Ave.

Tulsa, OK 74107

Contact Person: Steve DiLiberto
(918) 583-3925

THE WALLINGFORD RESOURCE RECOVERY FACILITY

THE WALLINGFORD RESOURCE RECOVERY FACILITY

The Wallingford Resource Recovery Facility converts up to 420 tons of solid waste into saleable energy each day. The facility is capable of producing power in the form of electricity or steam or both. While the facility runs on a portion of the power it generates, electricity is sold to Connecticut Light & Power Company.

Ogden Projects, Inc. acquired the facility when the project was in financial distress. In order to raise operations performance

to Ogden's operating standards and ensure compliance with service agreement requirements, Ogden redesigned mechanical and boiler systems; the facility entered commercial operation in May, 1989. Ogden Projects of Wallingford, LP owns and operates the plant which, under a twenty-year agreement, processes waste from Cheshire, Hamden, Meriden, North Haven and Wallingford. The Connecticut Resource Recovery Authority receives



approximately 90% of electricity revenues while Ogden receives a portion based on plant performance and efficiency.

RECYCLING WASTE INTO ENERGY

The facility utilizes Enercon technology to combust waste at furnace temperatures exceeding 1,800 degrees Fahrenheit, reducing it to an inert ash residue. Before leaving the

facility, combustion air is directed through technologically advanced air pollution control equipment including dry flue gas scrubbers and fabric filter baghouses. Facility emissions are

strictly regulated by state and federal agencies, as are handling and disposal of combustion ash.

AN ENVIRONMENTALLY SOUND SOLUTION

The Wallingford Resource Recovery Facility provides a cleaner alternative to traditional means of generating energy and offsets the burning of non-renewable fuels. In addition, plant operations reduce the volume of delivered waste by 90%, thus preserving rapidly diminishing landfill capacity.

The facility provides the cornerstone for the service area's inte-

grated solid waste management plan. Individual recycling programs in communities throughout the service area employ a combination of curbside collection and drop-off centers and process a host of materials: these include aluminum cans, bi-metal cans, glass, plastic, newspaper, office paper, mixed paper, corrugated cardboard, yard waste, motor oil and white

goods and other scrap metals. In addition, citizens are encouraged to dispose of household hazardous waste at a regional drop-off center.

The Wallingford Resource Recovery Facility is located approximately 25 miles south of Hartford. For information or to arrange a tour, please call 203-294-1649.

FACILITY SPECIFICATIONS

Rated Refuse Combustion Capacity
420 tons per day

Unit Design
Three 140 ton-per-day furnaces

Guaranteed Throughput
125,000 tons per year

Guaranteed Waste Delivery
125,000 tons per year

Energy Generation at Rated Capacity
Up to 11 MW, sold to Connecticut Light and Power Company or up to 35,741 lbs steam per hour per refuse boiler

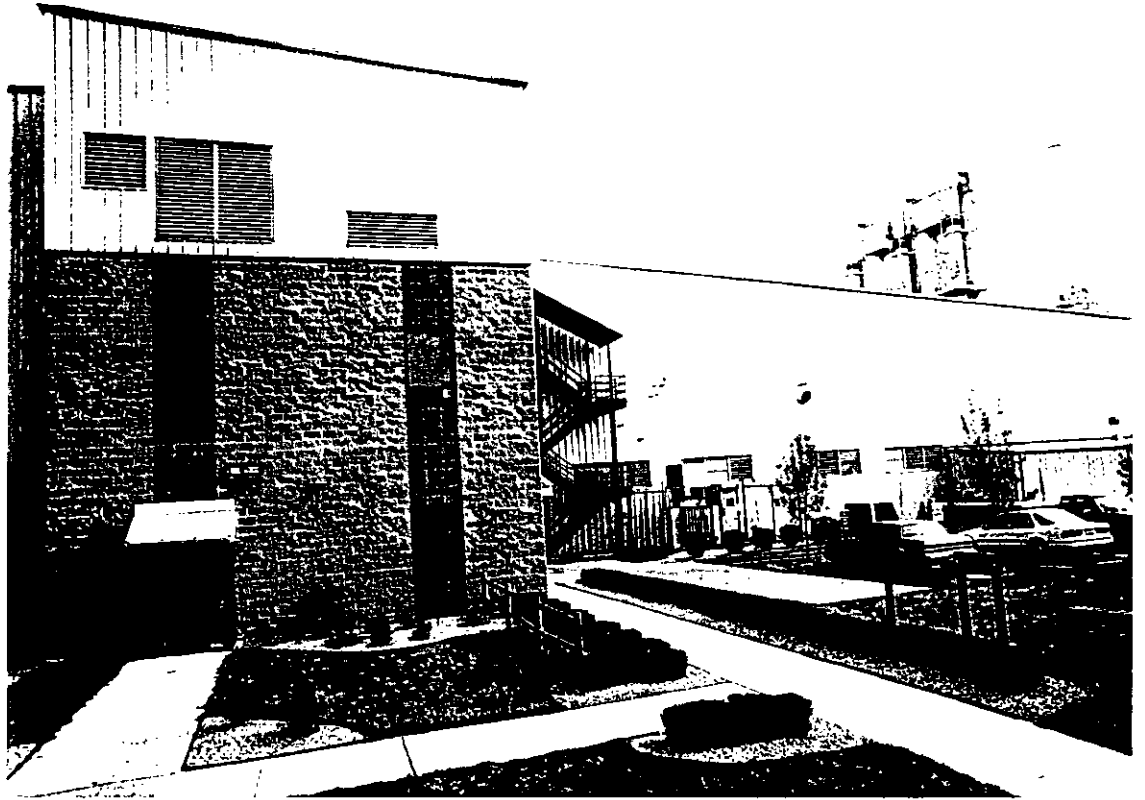
OGDEN PROJECTS OF WALLINGFORD, L.P.

530 South Cherry Street
Wallingford, Connecticut 06492



AN OGDEN PROJECTS COMPANY

OGDEN PROJECTS OF WALLINGFORD, L.P.

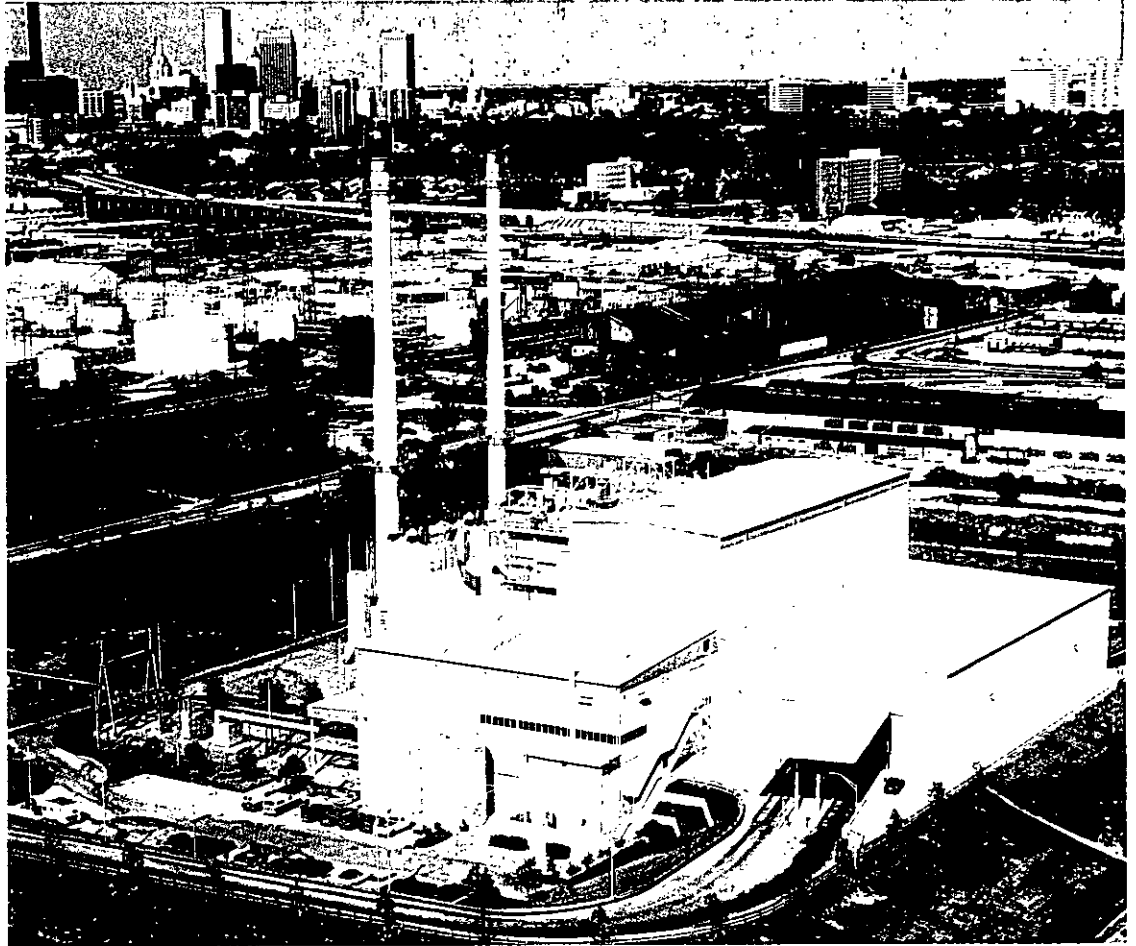


The Wallingford
Resource Recovery
Facility

**OGDEN PROJECTS OF
WALLINGFORD, L.P.**



OGDEN MARTIN SYSTEMS OF TULSA, INC.



The Walter E. Hall
Resource Recovery
Facility

**OGDEN MARTIN SYSTEMS
OF TULSA, INC.**



THE WALTER B. HALL RESOURCE RECOVERY FACILITY

THE WALTER B. HALL RESOURCE RECOVERY FACILITY

The Walter B. Hall Resource Recovery Facility, which began commercial operation in October, 1987, processes up to 1,125 tons of solid waste each day. In addition, it is equipped to produce energy in the form of steam or electricity or both. At maximum output, the plant produces up to 16.5 megawatts of electricity or 240,000 pounds per hour of export steam.

While offsetting oil and coal consumption, resource recovery operations also reduce waste volume by 90%, thereby helping to reduce dependence on landfill

space. In fact, in its first five years of operation, the facility processed more than one-and-a-half million tons of solid waste, saving over 1,800 acre-feet of landfill space—that's the equivalent of a ten-foot deep layer of waste spread over 180 acres.

Ogden Martin Systems of Tulsa, Inc. (OMST) designed and built the facility and operates it under a twenty-year agreement with the Tulsa Authority for Recovery of Energy. In addition,

the Authority receives 90% of energy sales revenues which helps offset construction and operating expenses.



RECYCLING WASTE INTO ENERGY

The facility's mass burn combustion system incorporates the technology of German-based Martin GmbH. Waste is combusted at furnace temperatures exceeding 1,800 degrees

Fahrenheit and reduced to an inert ash residue. Before leaving the facility, combustion air is directed through technologically advanced air pollution control equipment including electrostatic

precipitators. Facility emissions are strictly regulated by state and federal agencies, as are handling and disposal of combustion ash.

A COMMUNITY PARTNERSHIP

Tulsa's integrated solid waste management program is anchored by the resource recovery facility. In addition, the City of Tulsa encourages residents to use recycling drop-off bins located at area retail outlets and to partici-

pate in quarterly hazardous waste weekends during which items such as motor oil and automotive batteries are collected for recycling. Ferrous metal recovered from combustion ash is also a major contributor to Tulsa's

recycling efforts.

For additional information on the Walter B. Hall Resource Recovery Facility or to arrange a tour, please call 918-583-3925.

FACILITY SPECIFICATIONS

Rated Refuse

Burning Capacity

1,125 tons per day

Unit Design

Three 375 ton per day waterwall furnaces

Guaranteed Throughput

350,000 tons per year

Guaranteed Waste Delivery

292,000 tons per year

Energy Generation at

Rated Capacity

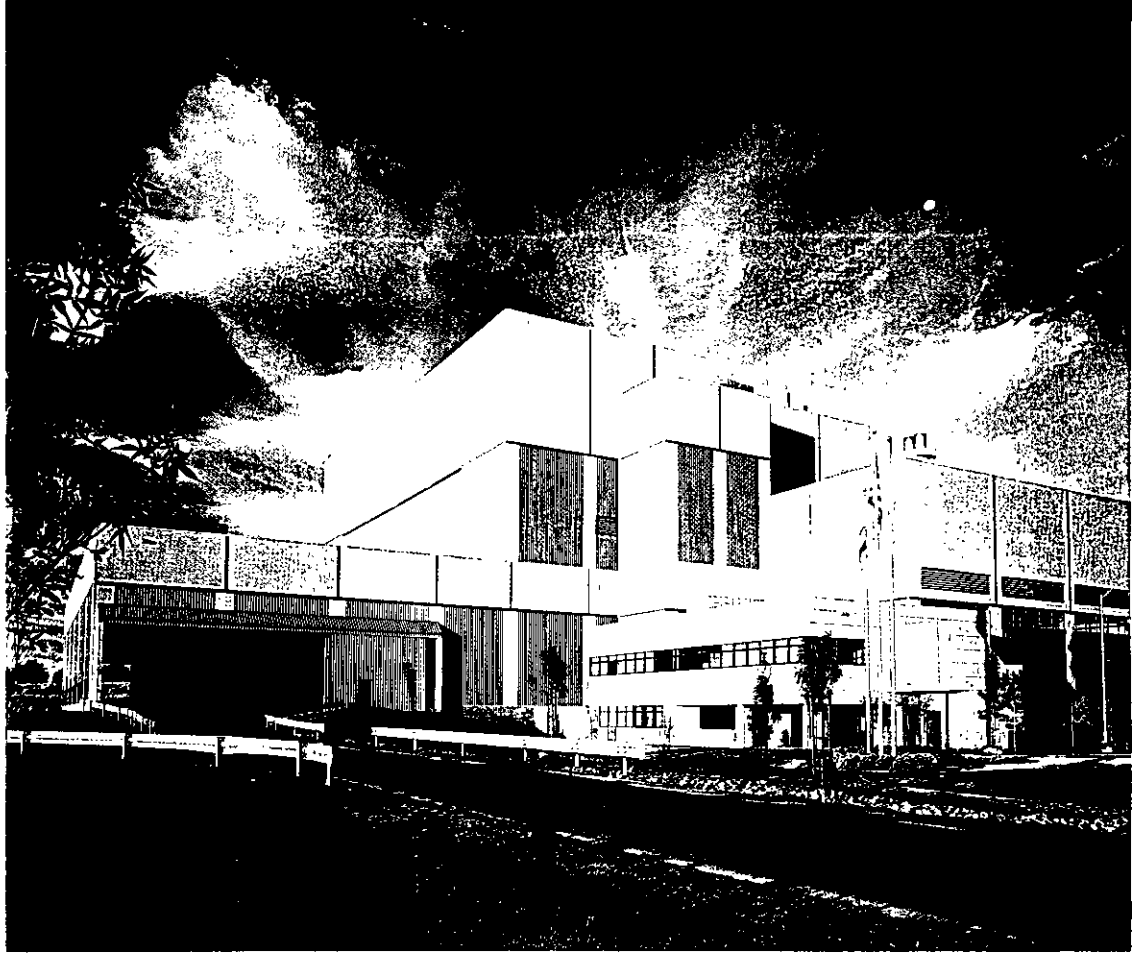
up to 16.5 MW electricity, sold to Public Service Company of Oklahoma; or up to 240,000 lbs per hour export steam, sold to Sun Refining and Marketing Company

OGDEN MARTIN SYSTEMS OF TULSA, INC.

2122 South Yukon Avenue
Tulsa, Oklahoma 74107



AN OGDEN PROJECTS COMPANY



The Stanislaus
County Resource
Recovery Facility

**OGDEN MARTIN SYSTEMS
OF STANISLAUS, INC.**



AN OGDEN PROJECTS
COMPANY

THE STANISLAUS COUNTY RESOURCE RECOVERY FACILITY

THE STANISLAUS COUNTY RESOURCE RECOVERY FACILITY

The Stanislaus County Resource Recovery Facility, which began commercial operation in January, 1989, processes up to 800 tons of solid waste each day, generating up to 22.5 megawatts of electricity. The facility runs entirely on the power it generates, requiring less than three megawatts. Remaining electricity is sold to the local utility and used to power area homes and businesses. In order to offset facility construction and operating expenses, Stanislaus County and

the City of Modesto receive 90% of electricity sales revenues.

Designed, built, owned and operated by Ogden Martin Systems of Stanislaus, Inc., the facility provides environmentally safe, effective solid waste management services under a twenty-year service agreement with Stanislaus County and the City of Modesto.



RECYCLING WASTE INTO ENERGY

The facility's mass burn combustion system incorporates the technology of German-based Martin GmbH. Waste is combusted at furnace temperatures exceeding 1,800 degrees Fahrenheit and reduced to an inert ash residue. Before leaving the facility, combustion air is directed through technologically

advanced air pollution control equipment including dry flue gas scrubbers and fabric filter baghouses. The plant also features a thermal DeNO_x system to remove nitrogen oxides from combustion gas; it is the first commercially operational system of its kind in a privately-owned facility in the State of California.

Facility emissions are strictly regulated by state and federal agencies, as are handling and disposal of combustion ash. In addition, the facility is a zero-discharge plant; that is, all process wastewater is collected, treated on-site and reused.

AN ENVIRONMENTALLY SOUND SOLUTION

In its first two years of operation alone, energy production at the resource recovery facility offset the burning of the equivalent of well over a million barrels of crude oil, and protected the environment from related emissions. In addition, its highly efficient combustion process achieves a 90% reduction in waste volume, thus helping to preserve rapidly diminishing landfill space. This factor is of particular interest in the State of

California where diminishing landfill space and a growing environmental awareness make waste management increasingly more challenging.

The resource recovery facility is the cornerstone of an integrated solid waste management system which includes County- and City-supported recycling of glass containers, aluminum cans and newspaper. In addition, ferrous metal recovered from combustion ash is a major

contributor to the County's recycling efforts. Other activities include the City's battery drop-off network and the County's household hazardous waste collection program.

The Stanislaus County Resource Recovery Facility is located in Crows Landing, about 25 miles from Modesto. For additional information or to arrange a tour, please call 209-837-4423.

FACILITY SPECIFICATIONS

Rated Refuse Burning Capacity
800 tons per day

Unit Design
Two 400 ton per day waterwall furnaces

Guaranteed Throughput
243,300 tons per year

Guaranteed Waste Delivery
243,300 tons per year

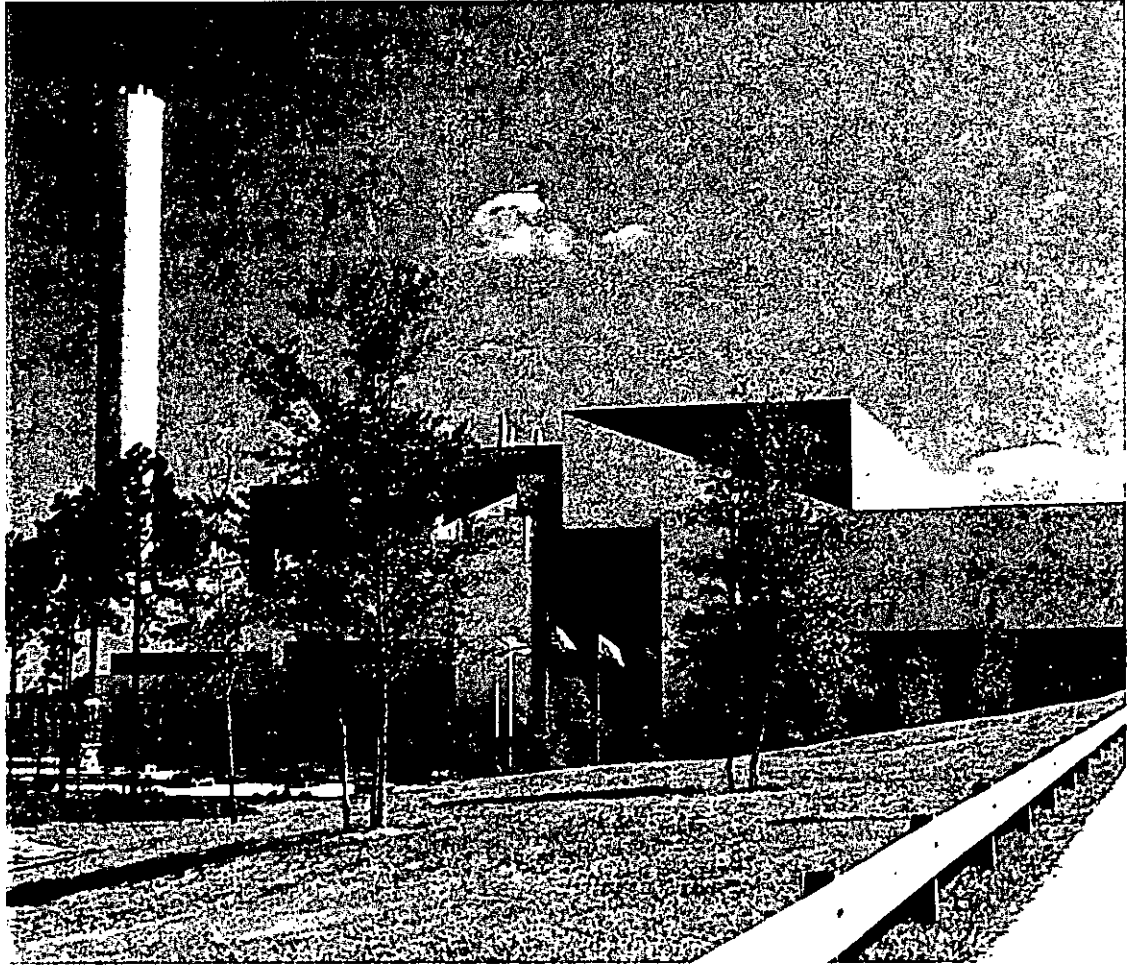
Energy Generation at Rated Capacity
up to 22.5 MW, sold to Pacific Gas & Electric Company

OGDEN MARTIN SYSTEMS OF STANISLAUS, INC.

4040 Fink Road
P.O. Box 278
Crows Landing, California 95313



OGDEN MARTIN SYSTEMS OF PASCO, INC.



The Pasco County
Solid Waste
Resource Recovery
Facility

**OGDEN MARTIN SYSTEMS
OF PASCO, INC.**



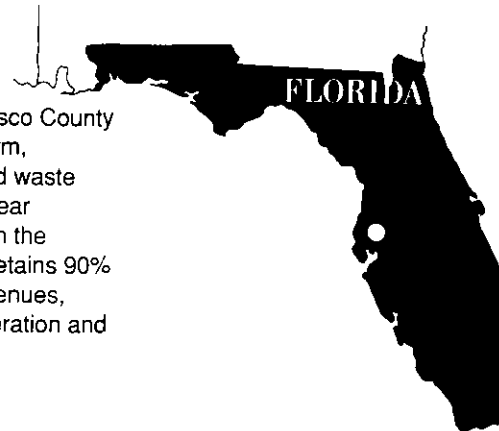
THE PASCO COUNTY SOLID WASTE RESOURCE RECOVERY FACILITY

THE PASCO COUNTY SOLID WASTE RESOURCE RECOVERY FACILITY

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

the facility is owned by Pasco County.

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



RECYCLING WASTE INTO ENERGY

The facility's mass burn combustion system incorporates the technology of German-based Martin GmbH. Waste is combusted at furnace temperatures exceeding 1,800 degrees Fahrenheit and reduced to an

inert ash residue that is approximately 10% of the original volume; the ash is disposed at an adjacent County ash monofill. Before leaving the facility, combustion air is directed through technologically advanced air

pollution control equipment, including dry flue gas scrubbers and fabric filter baghouses. Facility emissions are strictly regulated by state and federal agencies, as are handling and disposal of combustion ash.

AN INTEGRATED SYSTEM

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

Other elements of the County's integrated system include curbside recycling of

paper goods, aluminum cans, glass and plastic containers. White goods and other metals are also recycled. The County also runs special disposal programs for household hazardous waste, used motor oil, tires and construction and demolition debris. In an effort to reduce the amount of mercury in the waste stream, the County places battery collection buckets in public buildings and retail stores to

provide citizens with a safe means of disposing of household batteries. In addition, ferrous metal recovered from combustion ash is a major contributor to the County's recycling efforts.

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

FACILITY SPECIFICATIONS

Rated Refuse Combustion Capacity
1,050 tons per day

Unit Design
Three 350 ton per day waterwall furnaces

Guaranteed Throughput
326,000 tons per year

Guaranteed Waste Delivery
316,500 tons per year

Energy Generation at Rated Capacity
Up to 31.2 MW, sold to Florida Power Corporation

OGDEN MARTIN SYSTEMS OF PASCO, INC.

14230 Hayes road
Spring Hill, Florida 34610



AN OGDEN PROJECTS COMPANY

OGDEN MARTIN SYSTEMS OF MARION, INC.



OGDEN
MARTIN
SYSTEMS
OF
MARION, INC.

OGDEN

THE MARION COUNTY SOLID WASTE-TO-ENERGY FACILITY

THE MARION COUNTY SOLID WASTE-TO-ENERGY FACILITY

The Marion County Solid Waste-to-Energy Facility began commercial operation in March, 1987 and converts up to 550 tons per day of non-recycled solid waste into saleable energy. The facility is capable of generating 13.1 megawatts of electricity and runs on the energy it produces, consuming about two megawatts; the remainder is sold to the local utility and used to power area homes

and businesses. Marion County retains 90% of energy sales revenues which helps offset construction and operation expenses.

The facility was designed, built and is owned and operated by Ogden Martin Systems of Marion, Inc. (OMSM). Under a 20-year agreement, OMSM will provide environmentally safe,



effective solid waste management to Marion County residents well into the future.

RECYCLING WASTE INTO ENERGY

The facility's mass burn combustion system incorporates the technology of German-based Martin GmbH. Waste is combusted at furnace temperatures exceeding 1,800 degrees Fahrenheit and reduced to an

inert ash residue which is approximately 10% of the original volume; combustion ash is disposed of in a specially lined ash monofill which is owned and operated by the County and located about 10 miles north of

the facility. Before leaving the facility, combustion air is directed through technologically advanced air pollution control equipment, including dry flue gas scrubbers and fabric filter baghouses.

AN INTEGRATED SYSTEM

The Marion County Solid Waste-to-Energy Facility is the cornerstone of the County's integrated waste management system. In addition to converting waste into energy, the County provides curbside pick-up of recyclable materials such as metals, glass and newspapers. The County also runs a drop-off program for collection of yard waste; these

organic materials are then composted and used in agricultural applications. Ferrous metal recovered from combustion ash is also a major contributor to the County's recycling efforts. A unique feature of the County's integrated system is its state-of-the-art ash monofill and leachate irrigation system—one of the first in the nation. Leachate from the ash

monofill is mixed with well water and used to irrigate grass seed crops grown on adjacent County-owned land.

The Marion County Solid Waste-to-Energy Facility is located in Brooks, about 4 miles north of Salem. For information or to arrange a tour, please call 503-393-0890.

FACILITY SPECIFICATIONS

Rated Refuse Burning Capacity
550 tons per day

Unit Design
Two 275 ton per day waterwall furnaces

Guaranteed Throughput
170,000 tons per year

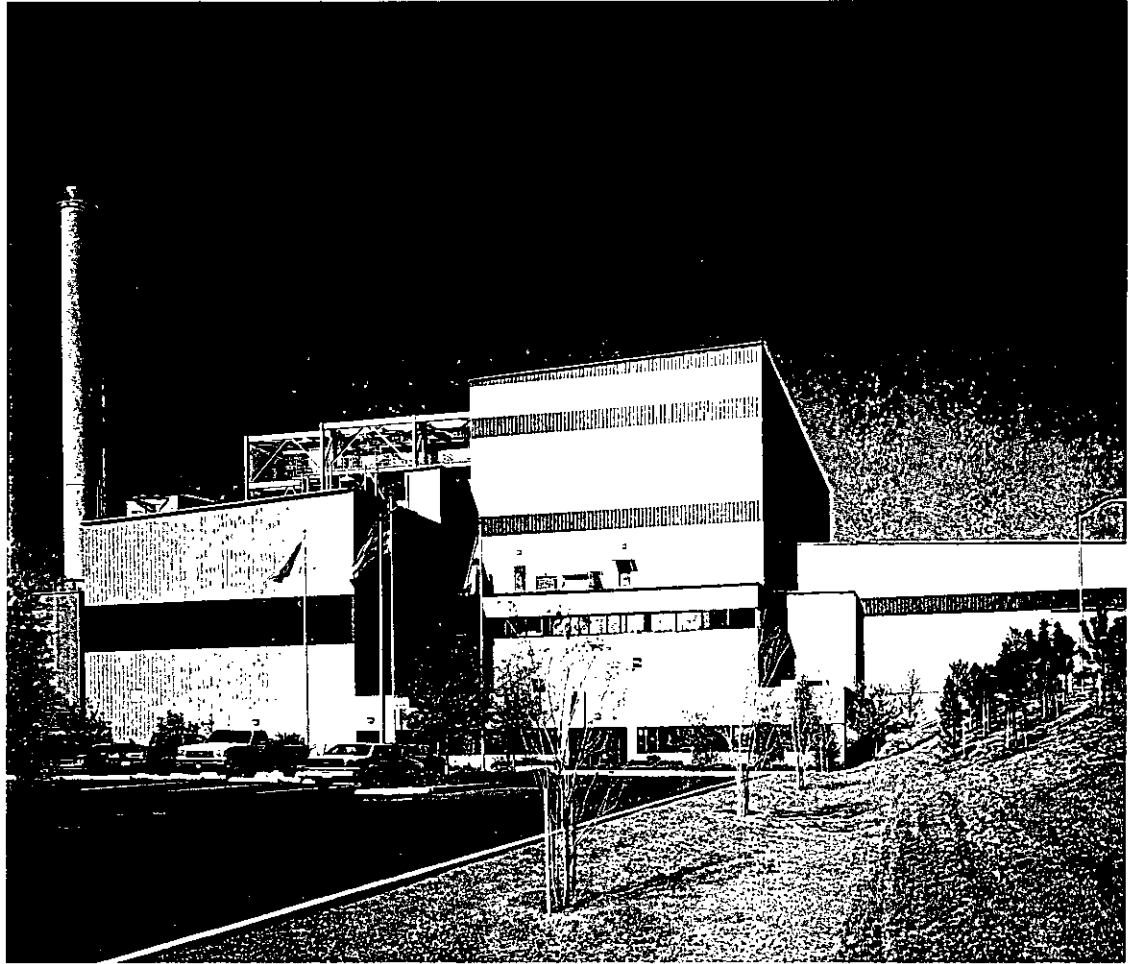
Guaranteed Waste Delivery
145,000 tons per year

Energy Generation at Rated Capacity
Up to 13.1 MW, sold to Portland General Electric Company

OGDEN MARTIN SYSTEMS OF MARION, INC.

4850 Brooklake Road, NE
PO Box 9126
Brooks, Oregon 97305

OGDEN MARTIN SYSTEMS OF LAKE, INC.



The Lake County
Resource Recovery
Facility

**OGDEN MARTIN SYSTEMS
OF LAKE, INC.**



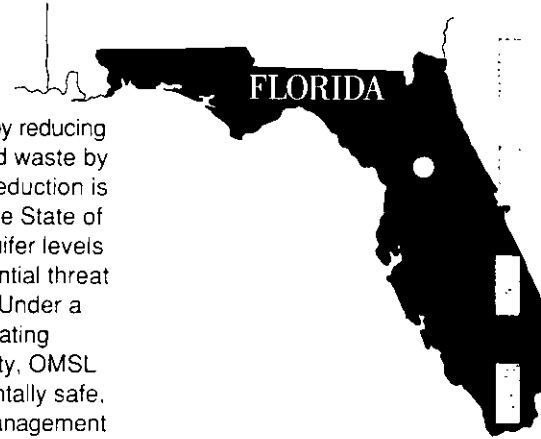
THE LAKE COUNTY RESOURCE RECOVERY FACILITY

THE LAKE COUNTY RESOURCE RECOVERY FACILITY

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

project costs.

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



RECYCLING WASTE INTO ENERGY

The facility's mass burn combustion system incorporates the technology of German-based Martin GmbH. Waste is combusted at furnace temperatures exceeding 1,800 degrees Fahrenheit and reduced to an

inert ash residue which is approximately 10% of the original volume of delivered waste. Before leaving the facility, combustion air is directed through technologically advanced air pollution control equipment consisting of dry flue

gas scrubbers and fabric filter baghouses. Facility emissions are strictly regulated by state and federal agencies, as are handling and disposal of combustion ash.

AN INTEGRATED SOLUTION

The resource recovery facility anchors an integrated solid waste management system which includes recycling via City- and County-sponsored curbside collection programs, private buy-back centers and County-run drop-off centers. Materials recycled include plastic and glass containers, aluminum cans and

newspapers. In addition, the County encourages citizens to deposit batteries in collection buckets placed at retail outlets and public buildings and operates a permanent household hazardous waste collection center—one of the first in Florida. In addition, ferrous metal recovered from combustion ash is a major

contributor to local recycling efforts.

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

FACILITY SPECIFICATIONS

Rated Refuse Combustion Capacity
528 tons per day

Unit Design
Two 264 ton per day waterwall furnaces

Guaranteed Throughput
163,000 tons per year

Guaranteed Waste Delivery
130,000 tons per year

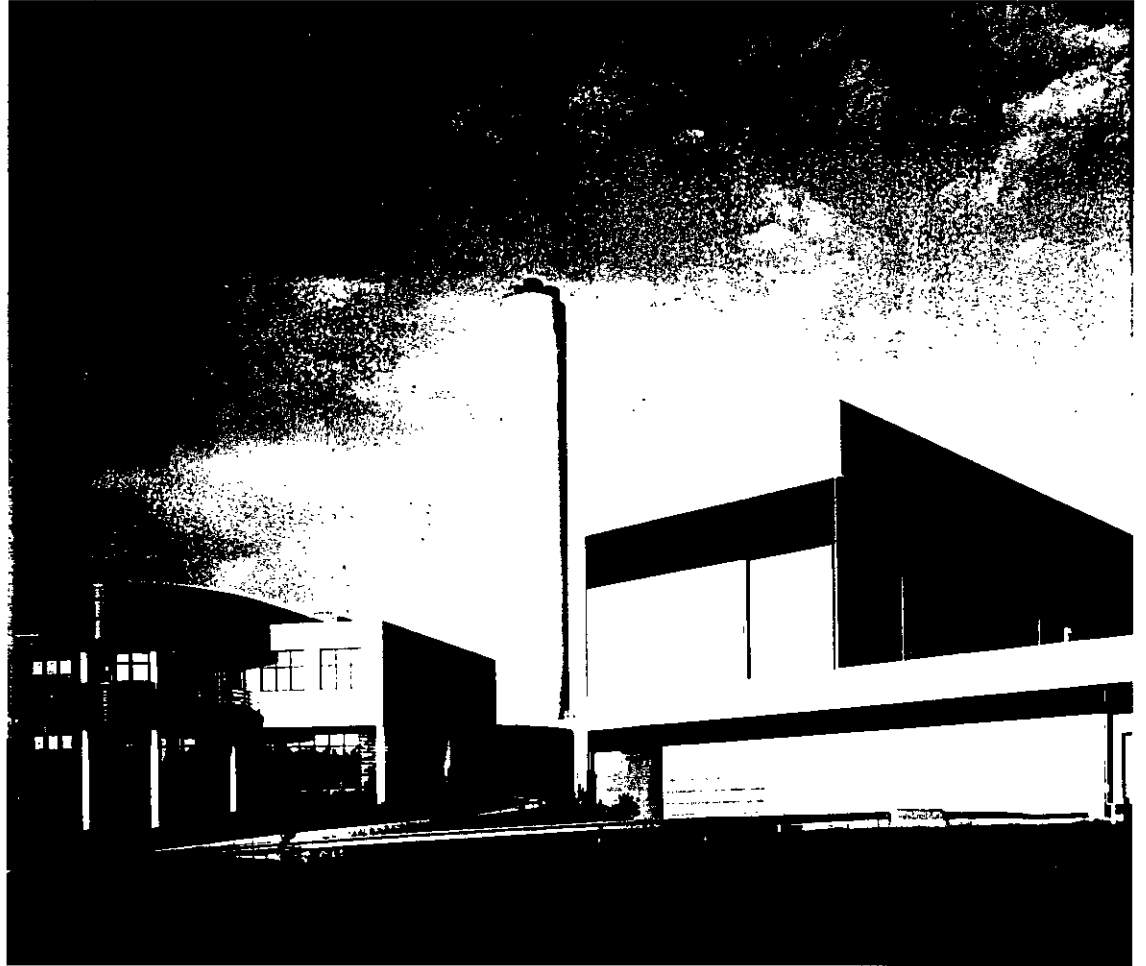
Energy Generation at Rated Capacity
Up to 14.5 MW, sold to Florida Power Corporation

OGDEN MARTIN SYSTEMS OF LAKE, INC.

3830 Rogers Industrial Park Road
PO Box 189
Okahumpka, Florida 34762



OGDEN MARTIN SYSTEMS OF INDIANAPOLIS, INC.



The Indianapolis
Resource Recovery
Facility

**OGDEN MARTIN SYSTEMS
OF INDIANAPOLIS, INC.**



THE INDIANAPOLIS RESOURCE RECOVERY FACILITY

THE INDIANAPOLIS RESOURCE RECOVERY FACILITY

The Indianapolis Resource Recovery Facility, which began commercial operation in December, 1988, is capable of processing 2,362 tons of solid waste each day. For each ton of solid waste combusted, the facility produces 4,500 pounds of steam, which is purchased by Indianapolis Power & Light Company and used to heat nearly all of the downtown business district, as well as the Indiana University, Purdue University Indianapolis campus. To help offset operating and construction expenses, the City receives 90% of steam sales revenues.

Plant operations also reduce the volume of solid waste by 90%, thus conserving rapidly diminishing landfill capacity. In fact, in its first five and a half years of operation, over 11.5 million cubic yards of landfill space were preserved. With a twenty-year operating contract in place, this statistic represents only a fraction of the environmental savings the facility will achieve over its lifespan. Designed, built, owned and operated by Ogden Martin Systems of Indianapolis, Inc., the facility serves over 750,000 residents.



CLEANING UP THE ENVIRONMENT

The Indianapolis Resource Recovery Facility provides a cleaner alternative to traditional means of generating energy; and by reducing the utility's need to burn coal, plant operations

eliminate substantial quantities of atmospheric emissions. In fact, an Indianapolis Department of Public Works study concluded that ambient levels of five air pollutants monitored by the

United States Environmental Protection Agency (EPA) were significantly reduced after the facility's first year of operation.

RECYCLING WASTE INTO ENERGY

The facility's mass burn combustion system incorporates the technology of German-based Martin GmbH. Waste is combusted at furnace temperatures exceeding 1,800 degrees Fahrenheit and reduced to an inert ash residue. Before leaving the facility, combustion air is directed through technologically advanced air pollution control equipment including dry flue gas scrubbers and fabric filter baghouses. Facility emissions are

strictly regulated by state and federal agencies, as are handling and disposal of combustion ash.

Anchored by the resource recovery facility, Indianapolis' integrated waste management plan includes recycling of aluminum cans, glass bottles, newspaper, used motor oil and other materials; in addition, the City-County Building recycles office paper. The City's "Indianapolis Recycles" program increases public awareness of

solid waste management issues and has boosted participation in City-run recycling and special disposal programs. In addition, ferrous metal recovered from combustion ash is a major contributor to the City's recycling efforts.

For additional information on the Indianapolis Resource Recovery Facility or to arrange a tour, please call 317-634-7367.

FACILITY SPECIFICATIONS

Rated Refuse Combustion Capacity
2,362 tons per day municipal solid waste

Unit Design
Three 787.3 ton per day waterwall furnaces

Guaranteed Throughput
718,300 tons per year

Guaranteed Waste Delivery
525,600 tons per year

Energy Generation at Rated Capacity
4,500 lbs of steam per ton of

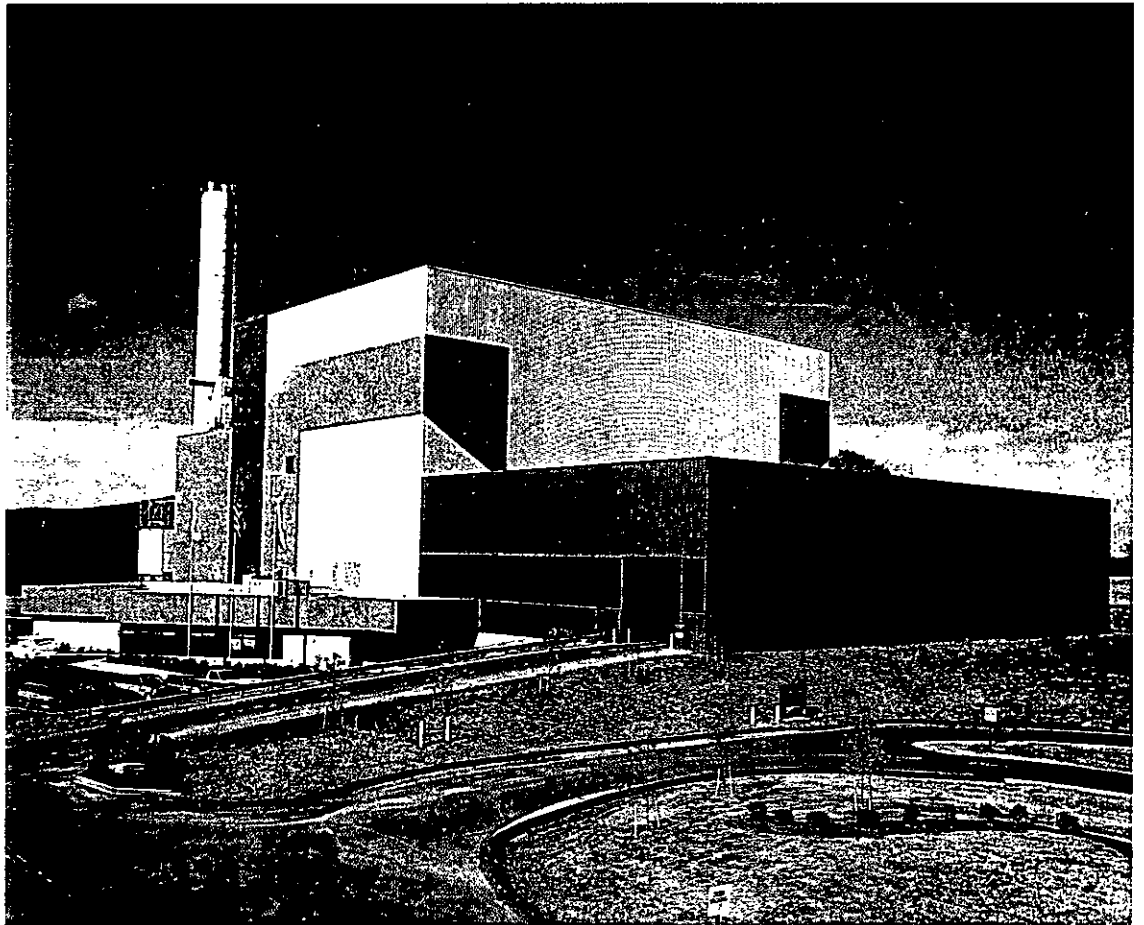
municipal solid waste, sold to Indianapolis Power & Light Company

OGDEN MARTIN SYSTEMS OF INDIANAPOLIS, INC.

2320 South Harding Street
Indianapolis, Indiana 46221



OGDEN MARTIN SYSTEMS OF HUNTSVILLE, INC.



The Huntsville
Refuse Fired Steam
Facility

**OGDEN MARTIN SYSTEMS
OF HUNTSVILLE, INC.**



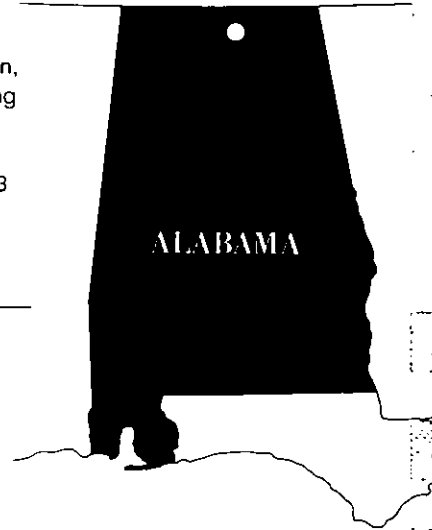
AN OGDEN PROJECTS
COMPANY

THE HUNTSVILLE REFUSE FIRED STEAM FACILITY

THE HUNTSVILLE REFUSE FIRED STEAM FACILITY

The Huntsville Refuse Fired Steam Facility, which began commercial operation in July, 1990, is the cornerstone of an integrated waste management system developed and implemented by The Solid Waste Disposal Authority of the City of Huntsville. The facility was

designed, built and is operated by Ogden Martin Systems of Huntsville, Inc. Across the nation, Ogden Martin Systems operating resource recovery facilities provide effective, reliable waste management services to over 13 million Americans.



AN INTEGRATED SOLUTION

Designed to complement a city-wide recycling program, the Huntsville Refuse Fired Steam Facility meets four key objectives: (1) the plant burns 690 tons per day of municipal solid waste, significantly reducing the volume of garbage to be landfilled; (2) it supplies energy in the form of steam to the nearby U.S. Army Redstone Arsenal, virtually eliminating the Arsenal's

dependence on its own steam plants; (3) its combustion process destroys odorous methane gases extracted from the Authority's landfill; and (4) the plant burns sewage sludge from Huntsville's wastewater treatment plant as fuel, thus providing a practical means of sludge disposal. In addition to the environmental benefits derived from this

alternative energy source, the Authority receives 100% of all energy sales revenues earned by the facility to help offset plant construction and operation costs.

RECYCLING WASTE INTO ENERGY

The facility's mass burn combustion system incorporates the technology of German-based Martin GmbH. Waste is combusted at furnace temperatures exceeding 1,800 degrees Fahrenheit and reduced to an inert ash residue that is approximately 10% of the original volume. Before leaving the facility, combustion air is directed through technologically advanced

air pollution control equipment including dry flue gas scrubbers and fabric filter baghouses. Facility emissions are strictly regulated by state and federal agencies as are handling and disposal of combustion ash.

The Huntsville Refuse Fired Steam Facility is the key component of the Authority's integrated waste management system which also includes

curbside and white goods recycling and a household hazardous waste disposal program. In addition, ferrous metal recovered from combustion ash is a major contributor to Huntsville's recycling efforts.

For additional information about the Huntsville Refuse Fired Steam Facility or to arrange a tour, please call 205-882-1019.

FACILITY SPECIFICATIONS

Rated Refuse Burning Capacity
690 tons per day

Unit Design
Two 345 ton per day waterwall furnaces

Guaranteed Throughput
214,000 tons per year (212,570 tons municipal solid waste, plus 10% sewage sludge)

Guaranteed Waste Delivery
195,000 tons per year

Energy Generation at Rated Capacity
89,310 lbs of steam per hour per refuse boiler, sold to the U.S. Army's Redstone Arsenal for heating and air conditioning

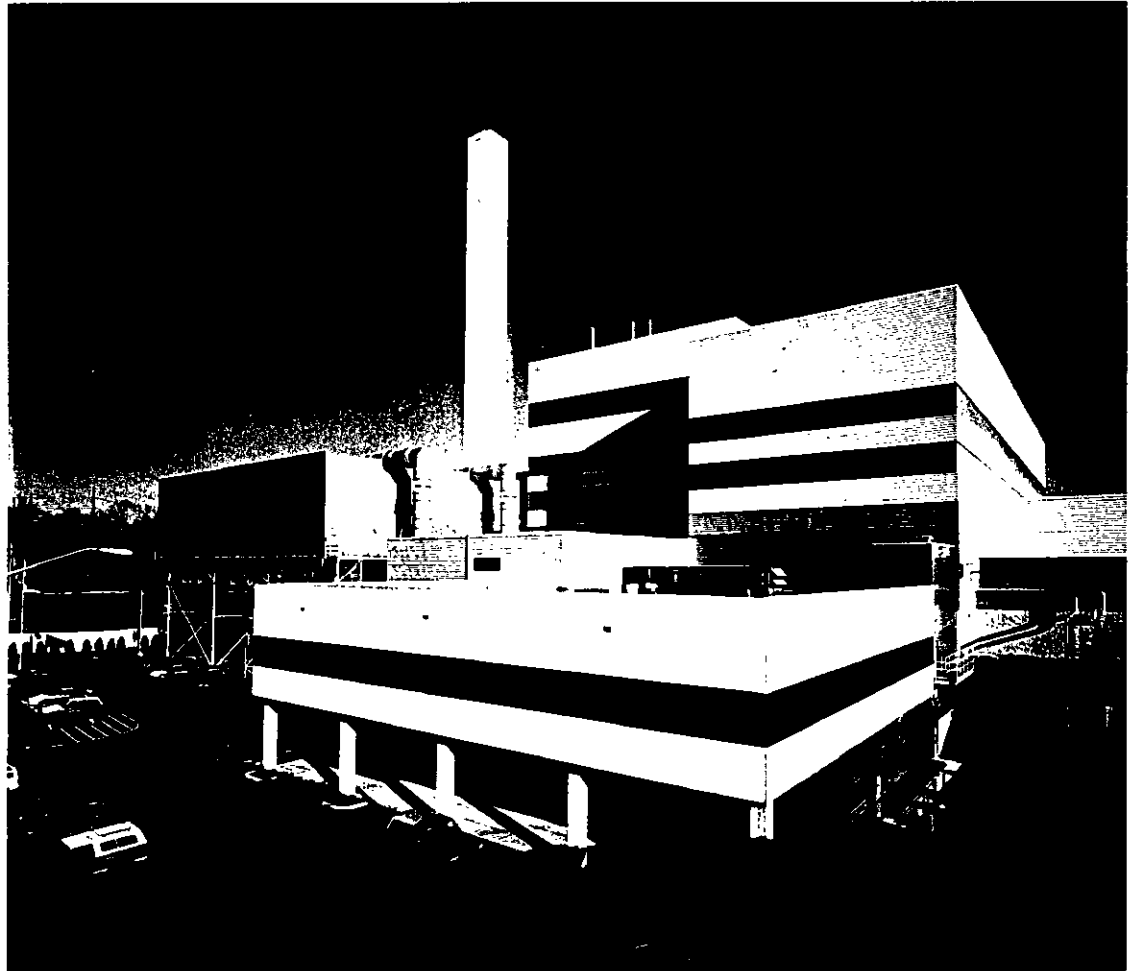
OGDEN MARTIN SYSTEMS OF HUNTSVILLE, INC.

5251 Triana Boulevard
Huntsville, Alabama 35805



AN OGDEN PROJECTS COMPANY

OGDEN MARTIN SYSTEMS OF HUNTINGTON, L.P.



The Huntington
Resource Recovery
Facility

**OGDEN MARTIN SYSTEMS
OF HUNTINGTON, L.P.**

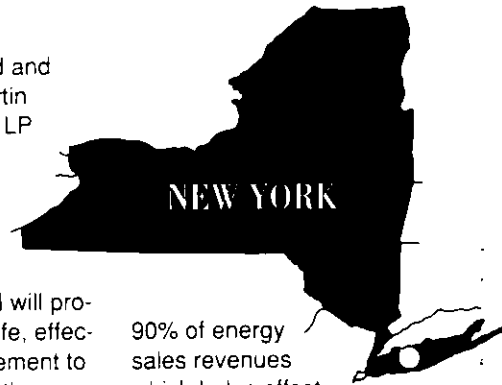


THE HUNTINGTON RESOURCE RECOVERY FACILITY

THE HUNTINGTON RESOURCE RECOVERY FACILITY

The Huntington Resource Recovery Facility, which began commercial operation in December, 1991, converts up to 750 tons per day of non-recycled solid waste into saleable energy. Generating up to 25 megawatts of electricity, the facility runs on the energy it produces, consuming about two-and-a-half megawatts. The remainder is sold to the local utility and used to power approximately 12,000 area homes and businesses.

Designed, built, owned and operated by Ogden Martin Systems of Huntington, LP (OMSH), the facility accepts waste from the Town of Huntington, as well as neighboring Smithtown. Under a 20-year agreement, OMSH will provide environmentally safe, effective solid waste management to area residents well into the future. In addition, the Towns of Huntington and Smithtown retain



90% of energy sales revenues which helps offset construction and operation expenses.

RECYCLING WASTE INTO ENERGY

The facility's mass burn combustion system incorporates the technology of German-based Martin GmbH. Waste is combusted at furnace temperatures exceeding 1,800 degrees Fahrenheit and reduced to an

inert ash residue which is approximately 10% of the original volume. Before leaving the facility, combustion air is directed through technologically advanced air pollution control equipment including dry flue gas

scrubbers and fabric filter baghouses. In addition, state-of-the-art NO_x controls remove nitrogen oxides. The facility also features a zero-water discharge system meaning that all process water is re-used on-site.

AN INTEGRATED SOLUTION

The Huntington Resource Recovery Facility is the cornerstone of Huntington's integrated solid waste management system. Its substantial waste volume reduction is particularly significant given a New York State law prohibiting landfilling on

Long Island. In addition, the Town provides curbside collection of recyclable materials such as aluminum, glass, plastic and newspapers. Huntington operates a successful yard waste reuse program and a household hazardous waste drop-off facility.

Ferrous metal recovered from combustion ash is also a major contributor to the Town's recycling efforts.

For information on the Huntington Resource Recovery Facility or to arrange a tour, please call 516-754-1100.

FACILITY SPECIFICATIONS

Rated Refuse Combustion Capacity
750 tons per day

Unit Design
Three 250 ton-per-day waterwall furnaces

Guaranteed Throughput
252,000 tons per year

Guaranteed Waste Delivery
140,000 tons per year

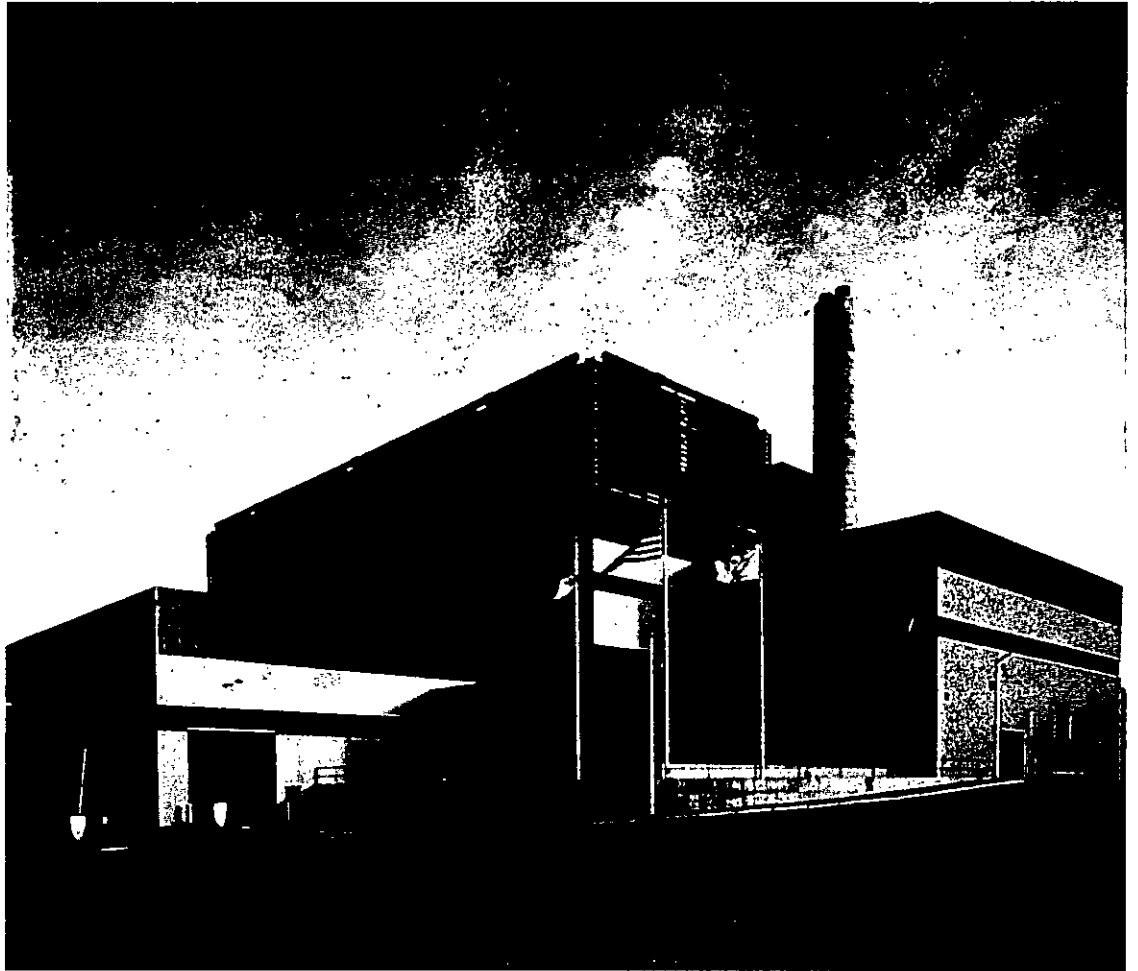
Energy Generation at Rated Capacity
Up to 25 MW, sold to Long Island Lighting Company

OGDEN MARTIN SYSTEMS OF HUNTINGTON, L.P.

99 Town Line Road
East Northport, New York 11731



**OGDEN MARTIN SYSTEMS OF
HAVERHILL, INC.**



The Haverhill
Resource Recovery
Facility

**OGDEN MARTIN SYSTEMS
OF HAVERHILL, INC.**



THE HAVERHILL RESOURCE RECOVERY FACILITY

THE HAVERHILL RESOURCE RECOVERY FACILITY

The Haverhill Resource Recovery Facility, which began commercial operation in June, 1989, converts up to 1,650 tons of non-recycled solid waste into saleable energy each day. Producing up to 46 megawatts of electricity, the facility consumes approximately five megawatts of the power it generates and sells the remainder to the local utility. Owned

and operated by Ogden Martin Systems of Haverhill, Inc. (OMSH), the facility provides long-term, environmentally sound waste management services.



RECYCLING WASTE INTO ENERGY

The facility's mass burn combustion system incorporates the technology of German-based Martin GmbH and features two 825 ton-per-day waterwall furnaces - the largest high-pressure, high-temperature Ogden Martin combustion units in use in North America. Waste is combusted at furnace temperatures

exceeding 1,800 degrees Fahrenheit and reduced to an inert ash residue. The ash is disposed of at an adjacent ash monofill which is operated by Ogden. Before leaving the facility, combustion air is directed through technologically advanced air pollution control equipment, including dry flue gas scrubbers

and electrostatic precipitators. In addition, the facility is the first of its kind to use rooftop mounted, air-cooled condensers to minimize process water consumption. Facility emissions are strictly regulated by both state and federal agencies, as are handling and disposal of combustion ash.

AN ENVIRONMENTALLY SOUND SOLUTION

The Haverhill Resource Recovery Facility provides a cleaner alternative to traditional means of generating energy and offsets the burning of non-renewable fuels. In addition, plant operations achieve a 90% volume reduction, thus preserving rapidly diminishing landfill

capacity. In fact, in its first two years of operations, the facility saved more than one million cubic yards of landfill space. While the State of Massachusetts has set a recycling goal of 25% by 1995, ferrous metal recovered from combustion ash is a major contributor to the area's

recycling efforts. The Haverhill Resource Recovery Facility is located approximately 35 miles north of Boston. For more information or to arrange a tour, please call 508-372-6288.

FACILITY SPECIFICATIONS

Rated Refuse Combustion Capacity
1,650 tons per day

Unit Design
Two 825 ton-per-day waterwall furnaces

Guaranteed Throughput
550,000 tons per year

Guaranteed Waste Delivery
550,000 tons per year

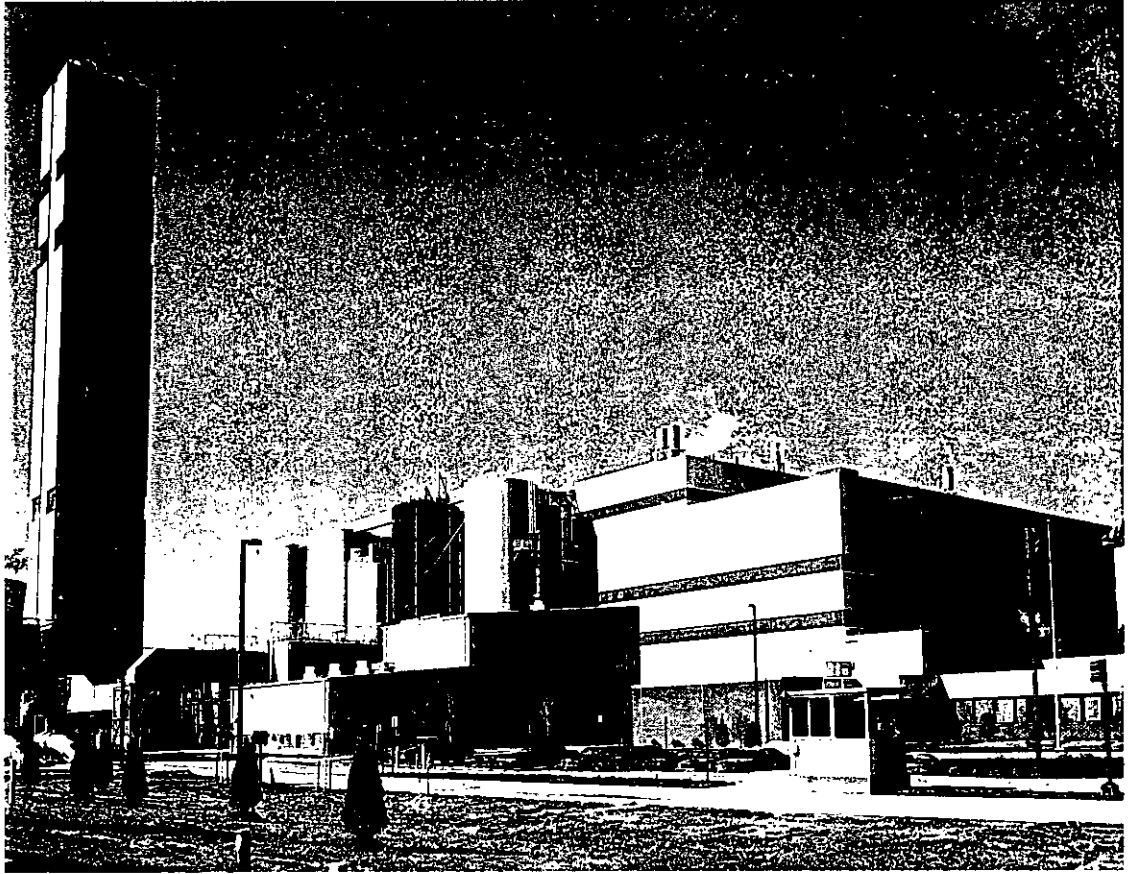
Energy Generation at Rated Capacity
Up to 46MW, sold to New England Power Company

OGDEN MARTIN SYSTEMS OF HAVERHILL, INC.

100 Recovery Way
Haverhill, Massachusetts 01835



OGDEN MARTIN SYSTEMS OF FAIRFAX, INC.



The I-95
Energy/Resource
Recovery Facility

**OGDEN MARTIN SYSTEMS
OF FAIRFAX, INC.**



AN OGDEN PROJECTS
COMPANY

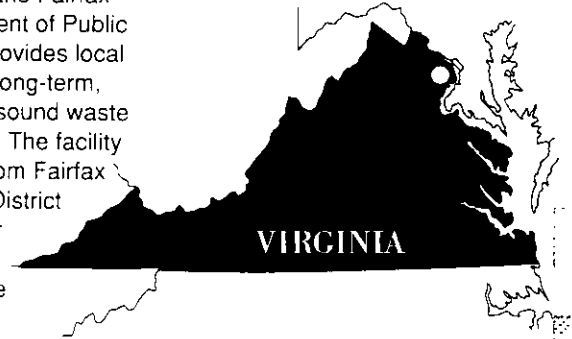
THE I-95 ENERGY/RESOURCE RECOVERY FACILITY

THE I-95 ENERGY/RESOURCE RECOVERY FACILITY

The I-95 Energy/Resource Recovery Facility, which began commercial operation in June, 1990, is the nation's largest publicly-bid mass burn waste-to-energy facility. Designed, built, owned and operated by Ogden Martin Systems of Fairfax, Inc. (OMSF), the facility converts up to 3,000 tons per day of non-recycled solid waste into 79 megawatts of saleable electricity—enough to power up to 75,000 homes. In addition, the facility is completely self-sufficient, consuming about 10 megawatts of

the electricity it generates, and selling the remainder to the local utility.

Together with the Fairfax County Department of Public Works, OMSF provides local residents with a long-term, environmentally sound waste disposal method. The facility accepts waste from Fairfax County and the District of Columbia after recyclables are removed from the waste stream.



RECYCLING WASTE INTO ENERGY

The facility's mass burn combustion system incorporates the technology of German-based Martin GmbH. Waste is combusted at furnace temperatures exceeding 1,800 degrees Fahrenheit, and reduced to an

inert ash residue that is approximately 10% of the original volume; the ash is disposed at the adjacent County-operated landfill. Before leaving the facility, combustion air is directed through technologically advanced

air pollution control equipment, including dry flue gas scrubbers and fabric filter baghouses. Facility emissions are strictly regulated by state and federal agencies, as are handling and disposal of combustion ash.

A COMMUNITY PARTNERSHIP

Throughout the I-95 Energy/Resource Recovery Facility's life span, it will convert millions of tons of non-recycled waste into valuable energy and reduce the volume of waste to be landfilled, thus preserving precious land for more productive uses. In addition to benefitting from this additional energy source which helps conserve fossil fuel, Fairfax County will

continue to receive 90% of the facility's electricity sales revenue to offset financing costs.

The facility is the key component of the County's integrated waste management system, which also includes waste reduction, recycling and household hazardous waste disposal programs. In addition, ferrous metal recovered from combustion ash is a major

contributor to the County's recycling efforts.

The I-95 Energy/Resource Recovery Facility is located in Lorton, Virginia, 25 miles from our nation's capital. For additional information or to arrange a tour, please call 703-690-6860.

FACILITY SPECIFICATIONS

Rated Refuse Combustion Capacity
3,000 tons per day

Unit Design
Four 750 ton per day waterwall furnaces

Guaranteed Throughput
930,750 tons per year

Guaranteed Waste Delivery
930,750 tons per year

Energy Generation at Rated Capacity
Up to 79 MW, sold to Virginia Power Company

OGDEN MARTIN SYSTEMS OF FAIRFAX, INC.

9898 Furnace Road
Lorton, Virginia 22079



OGDEN MARTIN SYSTEMS OF BABYLON, INC.



The Babylon
Resource Recovery
Facility

**OGDEN MARTIN SYSTEMS
OF BABYLON, INC.**



AN OGDEN PROJECTS
COMPANY

THE BABYLON RESOURCE RECOVERY FACILITY

THE BABYLON RESOURCE RECOVERY FACILITY

The Babylon Resource Recovery Facility, which began commercial operation in April, 1989, converts up to 750 tons per day of non-recycled solid waste into saleable energy. Of the 17 megawatts of electricity the facility is capable of generating, plant operations consume less than three; the remainder is sold to the local utility and used to power area homes and businesses. The Town of Babylon retains 90% of

energy sales revenues which helps offset construction and operation expenses.

The facility was designed and built and is owned and operated by Ogden Martin Systems of Babylon, Inc. (OMSB). Under a 20-year operating agreement with the Town, OMSB will provide area residents with long-term, environmentally sound waste management services well into the twenty-first century.



RECYCLING WASTE INTO ENERGY

The facility's mass burn combustion system incorporates the technology of German-based Martin GmbH. Waste is combusted at furnace

temperatures exceeding 1,800 degrees Fahrenheit, and reduced to an inert ash residue that is approximately 10% of the original volume. Before leaving the

facility, combustion air is directed through technologically advanced air pollution control equipment, including dry flue gas scrubbers and fabric filter baghouses.

AN EARTH-SAVING SOLUTION

With a moratorium on landfilling on Long Island, the Babylon Resource Recovery Facility provides an environmentally safe way for the Town to dispose of its waste. In addition, by generating electricity, facility operations offset the burning of fossil fuels by the local utility. Enhancing the facility's positive effect on the environment is a water purification process in which polluted leachate from the adjacent landfill, originally used

by the Town, is treated and utilized in waste-to-energy operations. It is the first resource recovery facility in the United States to perform this function. In addition, it is this country's first zero-water discharge waste-to-energy facility, meaning that all wastewater from facility operations is treated on-site and recycled through the system.

Anchored by the resource recovery facility, Babylon's integrated solid waste management

system includes curbside collection of such recyclables as aluminum cans, newspapers, glass and plastics; the Town also provides a white goods collection program. In addition, ferrous metal recovered from combustion ash is a major contributor to the Town's recycling efforts.

For information about the Babylon Resource Recovery Facility or to arrange a tour, please call 516-491-1976.

FACILITY SPECIFICATIONS

Rated Refuse Combustion Capacity
750 tons per day

Unit Design
Two 375 ton per day waterwall furnaces

Guaranteed Throughput
225,000 tons per year

Guaranteed Waste Delivery
225,000 tons per year

Energy Generation at Rated Capacity
Up to 17 MW, sold to Long Island Lighting Company

OGDEN MARTIN SYSTEMS OF BABYLON, INC.

125 Gleam Street
West Babylon, New York 11704



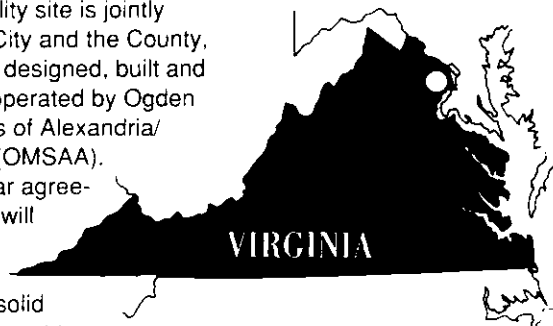
AN OGDEN PROJECTS COMPANY

THE ALEXANDRIA/ARLINGTON RESOURCE RECOVERY FACILITY

THE ALEXANDRIA/ARLINGTON RESOURCE RECOVERY FACILITY

The Alexandria/Arlington Resource Recovery Facility, which began commercial operation in February, 1988, converts up to 975 tons-per-day of non-recycled solid waste into saleable energy. The facility's two turbine generators produce up to 22 megawatts of electricity. The plant runs on the energy it produces, consuming about three megawatts; the remainder is sold to the local utility and used to power area homes and businesses.

While the facility site is jointly owned by the City and the County, the facility was designed, built and is owned and operated by Ogden Martin Systems of Alexandria/Arlington, Inc. (OMSAA). Under a 20-year agreement, OMSAA will provide environmentally safe, effective solid waste management to area residents well into the future.



RECYCLING WASTE INTO ENERGY

The facility's mass burn combustion system incorporates the technology of German-based Martin GmbH. Waste is combusted at furnace temperatures exceeding 1,800 degrees

Fahrenheit and reduced to an inert ash residue which is approximately 10% of the original volume. Technologically advanced air pollution control equipment includes a dry lime

injection system in which dry lime is introduced into each furnace to neutralize acid gases as they are formed. Electrostatic precipitators are used to further cleanse combustion gases.

A COMMUNITY PARTNERSHIP

The Alexandria/Arlington Resource Recovery Facility anchors a coordinated integrated solid waste management system in which newspaper, as well as aluminum, glass and plastic containers are gathered for

recycling through a combination of curbside collection and citizen drop-off centers. In addition, area residents are encouraged to deposit household batteries at special drop-off sites located at fire stations

throughout Arlington County. The Alexandria/Arlington Resource Recovery Facility is located in Alexandria, about 8 miles from our nation's capital. For information or to arrange a tour, please call 703-370-7722.

FACILITY SPECIFICATIONS

Rated Refuse Combustion Capacity
975 tons per day

Unit Design
Three 375 ton-per-day waterwall furnaces

Guaranteed Waste Delivery
226,000 tons per year

Energy Generation at Rated Capacity
Up to 22 MW, sold to Virginia Power Company

OGDEN MARTIN SYSTEMS OF ALEXANDRIA/ARLINGTON, INC.

5301 Eisenhower Avenue
Alexandria, Virginia 22304



**OGDEN MARTIN SYSTEMS OF ALEXANDRIA/
ARLINGTON, INC.**



The Alexandria/
Arlington
Resource Recovery
Facility

**OGDEN MARTIN SYSTEMS OF
ALEXANDRIA/ARLINGTON, INC.**



TABLE 2
PASCO COUNTY RRF SO₂ IMPACTS AT THE CHASSAHOWITZKA PSD CLASS I AREA

Paired Maximum Impacts ^(b)

<u>Year</u>	<u>Averaging Period</u>	<u>Julian Date</u>	<u>Receptor Reference Letter</u>	<u>Pasco Co. RRF Impact (ug/m³)</u>	<u>Background Sources ^(a) Impact (ug/m³)</u>	<u>Total Impact (ug/m³)</u>	<u>Total as Percent of PSD Increment</u>
1970	annual ^(c)	NA	A	0.021	1.422	1.44	72
	24-hour	85	D	0.27	2.33	2.60	52
	3-hour	85/2, hr 6	A	0.38	15.05	15.43	62
1971	annual	NA	A	0.026	1.251	1.28	64
	24-hour	252	F	0.28	2.79	3.07	61
	3-hour	252/1, hr 3	F	1.60	16.50	18.10	72
1972	annual	NA	F	0.013	1.485	1.50	75
	24-hour	237	H	0.34	4.04	4.38	88
	3-hour	316/21, hr 21	A	0.65	12.46	13.11	52
1973	annual	NA	A	0.022	1.328	1.35	68
	24-hour	39	A	0.30	4.61	4.91	98
	3-hour	39/1, hr 3	A	0.84	20.27	21.11	84
1974	annual	NA	A	0.021	1.378	1.40	70
	24-hour	182	H	0.16	2.64	2.78	56
	3-hour	187/3, hr 9	B	0.70	14.37	15.07	60

(%) = Percent of PSD Class I increment consumed; the 3-hour, 24-hour and annual SO₂ increments are 25-, 5- and 2-ug/m³, respectively.

(a) Fifteen SO₂ background sources were modeled.

(b) Maximum paired-in-space-and-time impacts. (See page 2 of letter.)

(c) Annual average concentrations were computed for the full 365- or 366-day duration.

NA = Not Applicable.