40CFR52.21(b)(21)(iii) 2-yrs data

Table 2-6. Comparison of Actual Baseline Emissions and Proposed Permit Limits After Upgrade

Regulated Pollutant	Actual Baseline Emissions[a] (TPY)	Proposed Permit Limits After Upgrade (TPY)	Net Change (TPY)
Particulate (TSP)	247.6	116.0	-131.6
Particulate (PM10)	220.4	116.0	-104.4
Sulfur Dioxide	1,564.7	858.4	-706.3
Hydrogen Chloride	1,713.7	536.0	-1,177.7
Nitrogen Oxides	1,555.8	2,460.0	904.2[e]
Carbon Monoxide	661.2	1,070.4	409.2[e]
Volatile Organic Compounds	12.5	77.4[b]	64.9[e]
Lead	4.10	1.80	-2.30
Mercury	0.89	0.536	-0.35[f]
Beryllium	0.0082	0.0022	-0.006
Arsenic	0.0522	0.0428	-0.009
Fluorides	6.0	3.8	-2.2
Sulfuric Acid Mist	71.9	39.6	-32.3
Total Reduced Sulfur	--	--	--
Asbestos	--	--	--
Vinyl Chloride	--	--	--
MWC Organics[c]	0.00228	0.00028	-0.00200
MWC Metals (as PM)	247.6	116.0	-131.6
MWC Acid Gases[d]	3,278.4	1,394.4	-1,884.0

BACT BACT

Note: MWC = municipal waste combustor.
TPY = tons per year.

[a] Reference Table 3-3 (revised) of PSD permit application.
[b] Includes 76.6 TPY from Units 1 through 4 and 0.8 TPY from solvent cleaning tanks.
[c] As total tetra- through octa- dioxins/furans.
[d] Sum of SO_2 and HCl emissions.
[e] Actual emissions of these pollutants will not increase. The indicated increase is due to the comparison of current actual emissions versus future permit limits after upgrade.
[f] Indicates future maximum emissions will be lower than current actual emissions by 0.35 TPY (700 lb/yr).

4 x 2
4 x 2

Originally: 2 new units operating & four existing units shutdown

1.0 INTRODUCTION

Metro-Dade County owns a resource recovery facility located in northwest Dade County. The facility, known as the Dade County Resources Recovery Facility (DCRRF), is currently operated under contract by Montenay Power Corp. (MPC). At this facility, municipal solid waste (MSW) is processed into refuse-derived fuel (RDF) by removing ferrous metal, glass, dirt, other non-combustables, and aluminum from the MSW. The RDF is then burned in four boilers located on-site. The boilers produce steam which in turn is used to drive two steam turbines/generators generate electrical power. A portion of this electricity is consumed to operate the plant, while the remainder is exported off-site for sale.

DCRRF was originally designed and constructed from 1979-1982 after receiving licensing approval under the Florida Power Plant Siting Act (FPPSA) on January 9, 1978. The U.S. Environmental Protection Agency (EPA) issued a federal prevention of significant deterioration (PSD) permit for construction of the facility on February 27, 1978. The facility has operated under these approvals since initial construction and operation.

DCRRF was constructed to provide an alternate method of disposal of MSW in Dade County, while providing beneficial byproducts to the community. It is designed as a 3,000-ton-per-day (TPD) resource recovery facility [936,000-ton-per-year (TPY) facility receiving MSW 6 days per week]. The original design of the plant included different techniques for processing of trash and garbage, and two separate process lines were established:

1. Trash System--A dry-line shredding system for processing trash, and
2. Garbage System--A wet-line system for processing garbage.

However, the wet system originally installed to process garbage proved to be inefficient and environmentally problematic, and hence was abandoned. The facility was modified during the period from 1987-1990 to provide dry processing systems on both trash and garbage, as well as general renovation of the facility. This renovation is known as the Capital Improvements Project (CIP).

Table 1-1. Summary of Certified, Existing, and Upgraded DCRRF (Page 1 of 2)

Attribute	Facility as Certified	Existing Capital Improvements Project	Proposed Upgrade Project
SITE			
Total Land Area	160 acres	No change	No change
Plant Site	40 acres	No change	No change
Landfill	80 acres	No change	No change
LAND USE AND ZONING	Consistent with Dade County Rules	No change	No change
CAPACITY			
MSW-Daily	3,000 tons	No change	No change
-Yearly	936,000 tons	No change	No change
Electrical	77 MW	No change	No change
RDF PROCESS			
Type	Wet garbage	Dry	Dry
Ferrous Separation	Included	Upgraded	No change
Glass Separation	Included	Upgraded	No change
Aluminum Separation	Included	Upgraded	No change
FACILITIES			
Scales	Included	No change	New scale for ash
Garbage Receiving	Included	No change	No change
Garbage Processing	Included	Refurbished	No change
Trash Receiving	Included	Upgraded	No change
Trash Processing	Included	Refurbished	No change
RDF Storage	Included	No change	No change
Ferrous Processing	Included	Relocated/upgraded	No change
Ash Handling	Included	Upgraded	To be upgraded
Tire Shredding	–	Added	No change
Cooling Towers	Included	No change	No change
Fuel Storage Bins	–	–	To be added at boilers
RDF Boiler Feed System	Included	Refurbished	No change
Boilers	Included	Refurbished	No change
Turbines	Included	No change	Add dump condenser
Switchyard	Included	No change	No change
Water Treatment	Included	No change	To be relocated
Pathological Incinerator	Included	Removed (prior to CIP)	Not included
Heavy Equipment Maintenance	Included	Relocated	No change
Administration Offices	Included	No change	To be expanded
FUEL	RDF	Process change	No change
BOILERS			
Number	Four	No change	No change
RDF Burning Capacity	Four units at 39.1 TPH each	Four units at 27 TPH each	No change
AIR POLLUTION CONTROL			
Type	ESP	No change	Spray dryer absorber/fabric filters (for particulate, acid gas, heavy metal, and dioxin/furan control)
Standard	NSPS: 40 CFR 60 Subpart E	No change	NSPS: 40 CFR 60 Subpart Ca (for PM, SO_2, HCl, CO, and dioxins/furans)
Mercury Control	Not required	Not required	To be installed on existing units

In 1992, Dade County submitted a site certification application (SCA) for a two-unit expansion at DCRRF. This SCA included the upgrade of the existing units. However, at that time, the upgrade was scheduled to be implemented after the two new units were installed. The upgrade was to begin in June 1996 and to be completed in September 1997.

Since the time of the SCA submittal, Dade County has been evaluating the need for expanded RDF combustion capacity. Based on these evaluations, it has been concluded that only a one-unit expansion would be necessary. In addition, it is anticipated that the upgrade may be required as early as 1996 based upon federal regulations promulgated in February 1991. These requirements have been promulgated in the Code of Federal Regulations (CFR), Title 40, Part 60, Subpart Ca. Subpart Ca requires that acid gas controls be installed on existing MSW combustors within 3 years of the state air pollution control agency passing regulations requiring these controls. The State of Florida is scheduled to adopt such regulations by December 1993. If adopted at that time, existing facilities would have until December 1996 to install the pollution control equipment.

The purpose of this document is to formally request approval to immediately proceed with the upgrade of the existing units. This project will significantly reduce air emissions from the existing units much sooner than realized under the previous schedule. This reduction will result in a significant benefit to the environment.

Information regarding the upgraded units was presented in detail in the SCA submitted for the two-unit expansion in 1992. In the following section, the information presented in the SCA is discussed in regard to the upgrade project. Each section of the SCA is reviewed, and any changes to the information presented in the SCA are identified.

2.0 PROJECT DESCRIPTION

2.1 UPGRADED FACILITIES

The existing facilities at DCRRF are described in Section 3.1.2 of the SCA. This information remains valid for the upgrade project.

The additional facilities associated with the upgrade of the existing units are described in Section 3.0 of the SCA and are identified in Table 1-1. The additional facilities are described briefly below, and any changes from the SCA are identified.

Water Treatment

Due to the siting of the new air quality control systems and stacks, the water treatment plant will be relocated to the west of the new stacks. A similar relocation was planned for the two-unit expansion (reference Section 3.1.3.3.1 of the SCA). There will be no process system change as a result of this relocation. Some older equipment such as the boiler demineralizer will be replaced, but the system will function the same as the current system. An updated site plan is provided in Figure 2-1.

Ash Handling System

The proposed ash handling system for the upgraded units is described in Section 3.7.1.2 of the SCA. The system consists of separate handling of the bottom ash and the fly ash to allow future recycling or use of the bottom ash material. All bottom ash will be collected and conveyed to a new ash building. In the SCA, this ash building was to be located immediately north of the new air quality control systems and stacks. However, due to the moving of these systems and stacks further to the north, the new ash building will now be located to the west of the existing Unit 4 trubine building.

In the SCA, up to two fly ash silos, one for each pair of existing units, were envisioned. Presently, one fly ash silo is planned to accommodate all four existing units. This is shown in the revised site plan (Figure 2-1). A single bin vent filter of 2,000 acfm capacity, instead of two bin vent filters of 1,000 acfm capacity each, is anticipated. Total particulate matter emissions as presented in the PSD permit application (Table 2-8) will remain the same.

Table 1-1. Summary of Certified, Existing, and Upgraded DCRRF (Page 2 of 2)

Attribute	Facility as Certified	Existing Capital Improvements Project	Proposed Upgrade Project
STACKS			
Height	Two @ 150 ft	No change	Two @ 250 ft
Type	Common flue	No change	Dual flue serving two units
WATER USE			
Groundwater			
Well Capacity	Three @ 1,222 gpm	No change	No change
Maximum Daily Use	1.85 mgd	<1.85 mgd	No increase expected
Average Daily Use	1.85 mgd	<1.85 mgd	No increase expected
City Water	4,500 gpd	Maximum 0.41 mgd	No increase expected
		Average 0.21 mgd	No increase expected
INDUSTRIAL WASTEWATER DISCHARGE			
To Waters of the U.S.	No discharge	No change	No change
To Waters of the State	No discharge	No change	No change
Cooling Tower Blowdown	Recycled	Sanitary sewer	No change
Boiler Blowdown	Recycled	Sanitary sewer	No change
Leachate	Pond and recycled	Sanitary sewer	No change
Contact Stormwater	Recycled	Sanitary sewer	No change
SOLID WASTE			
Leachate Collection	Included	Upgraded	No change-alternative uses to be sought
STORMWATER	Included	Upgraded	System upgrade underway[a]

[a]Pursuant to Settlement Agreement with DER.

08-11-93

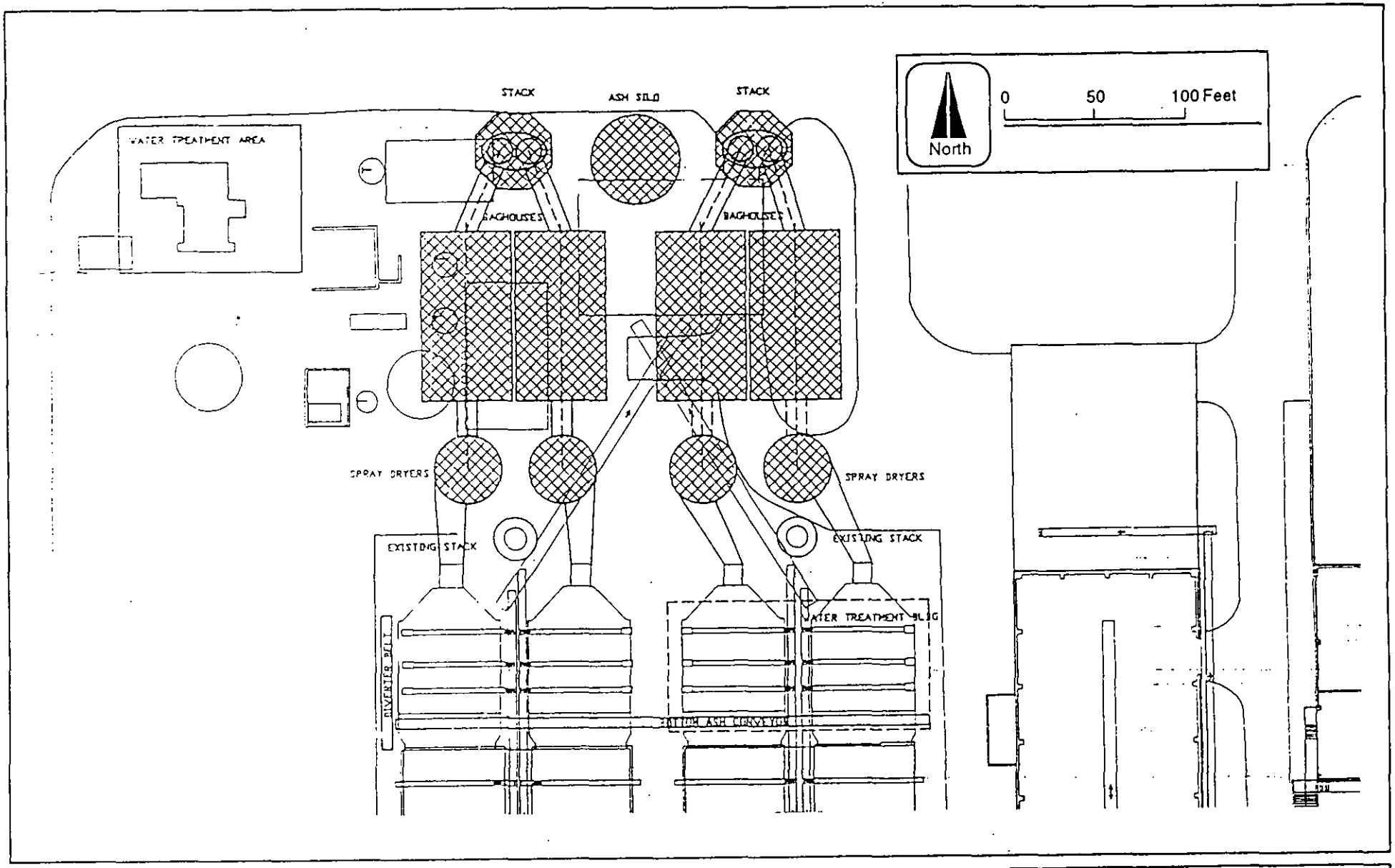

Figure 2-1 REVISED DCRRF SITE PLAN DETAILING UPGRADED UNITS

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Table 2-1. Maximum Emissions of Regulated Pollutants From Existing DCRRF Units After Upgrade

Regulated Pollutant	Basis	Heat Input Basis[a] (lb/MMBtu)	Maximum Emissions per Unit (lb/hr)	Annual Emissions per Unit (TPY)	Annual Emissions All Four Units (TPY)
Particulate (TSP)	0.011 gr/dscf @ 7% O_2	0.0235	6.61	29.0	116.0
Particulate (PM10)	100% of PM	0.0235	6.61	29.0	116.0
Sulfur Dioxide	3-hr; 150 ppmvd @ 7% O_2	0.374	105.0	–	–
	24-hr; 70 ppmvd @ 7% O_2	0.175	49.0	214.6	858.4
Hydrogen Chloride	24-hr; 78 ppmvd @ 7% O_2	0.109	30.6	134.0	536.0
Nitrogen Oxides	24-hr; 0.5 lb/MMBtu; 280 ppmvd @ 7% O_2	0.50	140.4	615.0	2,460.0
Carbon Monoxide	1-hr; 800 ppmvd @ 7% O_2	0.870	244.4	–	–
	24-hr; 200 ppmvd @ 7% O_2	0.218	61.1	267.6	1,070.4
Volatile Organic Compounds	25 ppmvd @ 7% O_2	0.0156	4.37	19.14	76.56
Lead	0.25 mg/Nm^3	3.63×10^{-4}	0.10	0.45	1.8
Mercury	0.075 mg/Nm^3; 0.0142 ppmvd @ 7% O_2	1.09×10^{-4}	0.031	0.134	0.536
Beryllium	0.0003 mg/Nm^3	4.36×10^{-7}	0.00012	0.00054	0.00216
Arsenic	0.006 mg/Nm^3	8.72×10^{-6}	0.0024	0.0107	0.0428
Fluorides	0.008 lb/ton; 1.1 ppmvd @ 7% O_2	7.69×10^{-4}	0.22	0.95	3.8
Sulfuric Acid Mist	3% of sulfur	0.00802	2.25	9.9	39.6
Dioxin/Furan[b]	60 ng/Nm^3 @ 7% O_2	5.59×10^{-8}	1.57×10^{-5}	6.88×10^{-5}	2.75×10^{-4}

Note: gr/dscf = grains per dry standard cubic foot.
lb/hr = pounds per hour.
lb/MMBtu = pounds per million British thermal units.
lb/ton = pounds per ton.
mg/Nm^3 = milligrams per normal cubic meter.
MMBtu = million British thermal units.
ng/Nm^3 = nanograms per normal cubic meter.
PM10 = particulate matter with an aerodynamic diameter less than or equal to 10 micrometers.
ppmvd = parts per million by volume dry.
TPY = tons per year.
TSP = total suspended particulate.

[a] Based on heat input of 280.8 MMBtu/hr for existing units.
[b] As total tetra- through octa-dioxins/furans.

Table 2-2. Comparison of Federal Emission Guidelines for Municipal Waste Combustors and Basis of Proposed Limits for Upgraded Units

Pollutant	Emission Guideline[b]	Basis of Proposed Limit
Plant Size > 1,100 TPD[a]		
MWC metals (as PM)	0.015 gr/dscf	0.011 gr/dscf
Opacity	10% opacity (6 minutes)	10% opacity
MWC organics (dioxin/furan)	60 ng/dscm (24 gr/billion dscf)	60 ng/dscm
Sulfur dioxide	70% reduction or 30 ppmvd[c] (24-hour)	70 to 92.6% reduction[d]
Hydrogen chloride	90% reduction or 25 ppmvd[c]	Up to 90% reduction[e]
Plant Size > 250 TPD[a]		
Carbon monoxide	RDF stoker - 200 ppmvd	200 ppmvd
Operating practices	1. Cannot exceed 110% of maximum demonstrated unit load	Operational parameter
	2. Cannot exceed 30°F above maximum demonstrated temperature at inlet to PM control device	Operational parameter

Note: Guidelines apply to all units constructed before December 20, 1989.
Standards do not apply during periods of startup, shutdown, or malfunction; limited to 3 hours per occurrence.
NA = Not applicable.

[a] Unit capacity based on 4,500 Btu/lb for MSW and 8,500 Btu/lb for medical waste.
[b] All limits are at 7 percent oxygen.
[c] Whichever is less stringent.
[d] 92.6% reduction would be achieved during periods of highest uncontrolled SO_2 emissions.
[e] 90% reduction would be achieved unless a lower control efficiency would result in less than 25 ppmvd.

Table 2-3. Emissions Due To Propane Combustion in Existing Units After Upgrade

Pollutant	Emission Factor lb/1000 gal[a]	Emission Factor lb/MM Btu[b]	Emissions From Each Upgraded Unit[c] (lb/hr)
Particulate Matter (TSP)	0.6	0.0063	0.50
Particulate Matter (PM10)	0.6	0.0063	0.50
Sulfur Dioxide	0.4 [d]	0.0042	0.34
Nitrogen Oxides	19	0.20	16.00
Carbon Monoxide	3.2	0.034	2.72
Volatile Organic Compounds	0.5	0.0053	0.42

[a] Reference EPA Publication AP-42, Section 1.5 (10/92).
[b] Based on average heating value of 95,000 Btu/gal.
[c] Maximum heat input of 80.0 MMBtu/hr or 842 gal/hr.
[d] Based on Exxon specification of 4 gr Sulfur/100 cu. ft. of vapor.

Table 2-4. Stack Parameters for Existing and Upgraded Units

Parameter	Existing Units (each)	Upgraded Units (each)
Stack Height (ft)	150	250
Stack Diameter (ft)	9.00[a]	8.50[b]
Exhaust Gas Flow (acfm)	190,000	177,200[b]
Exhaust Gas Velocity (ft/min)	5,973[a]	3,123[b]
Exhaust Gas Temperature (°F)	370	270

Note: Currently, a common stack serves Units 1 and 2, and a common stack serves Units 3 and 4. A dual-flue stack will serve each pair of units in the future (i.e., one stack for Units 1 and 2; and one stack for Units 3 and 4).

acfm = actual cubic feet per minute.
°F = degrees Fahrenheit.
ft = feet.
ft/min = feet per minute.

[a] Value is for common stack.
[b] Value is for each flue of the dual-flue stack.

Source: Birwelco-Montenay, Inc., 1993.

Table 2-5. Summary of Air Quality Control Equipment Design Data for Upgrade

Parameter	Upgraded Units (27 TPH RDF each)
Spray Dryers	
Flue Gas Inlet Temperature	482°F
Quench Reactors	27 ft diameter x 104 ft high
Type	Downflow
Reagents	Lime or equivalent
Reagent Consumption	1,000 lb/hr (maximum)
Fabric Filters	
Cleaning Mechanism	Pulse Jet or Reverse Air
Number of Modules	8 (minimum)
Number of Bags per Module	324
Effective Bag Area	
Per Module	7,668 ft^2
Total Baghouse	61,344 ft^2
Air/Cloth Ratio	3.0:1
Material	Fiberglass
Weight	16 oz/yd^2
Guaranteed Bag Life	24 months
Outlet Grain Loading (@ 7% O_2)	0.011 gr/dscf
Flue Gas Outlet Temperature	270°F
Mercury Control System	
Reactant	Activated carbon or equivalent
Overall System	
Pressure Drop	10.5 inches w.c.
Power Consumption	450 kW
Water Consumption	100 gpm

Note: All data are per unit. Actual selected control equipment will be equivalent in performance to stated design but may vary from data shown.

°F = degrees Fahrenheit.
ft^2 = square feet.
gpm = gallons per minute.
gr/dscf = grains per dry standard cubic feet.
kW = kilowatts.
lb/hr = pounds per hour.
oz/yd^2 = ounces per square yard.
RDF = refuse-derived fuel.
TPH = tons per hour.
w.c. = water column.

Source: Birwelco-Montenay, Inc., 1993.

Post-It™ brand fax transmittal memo 7671 | # of pages ▸ 2

To Clair Fancy	From Dave Buff
Co. FDER	Co. KBN Engineering
Dept. 90086	Phone # 331-9000
Fax # 904 922 6979	Fax # 332 4189

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October 18, 1991

Mr. Clair Fancy
Division of Air Resources Management
Florida Department of Environmental Regulation
2600 Blair Stone Road
Tallahassee, FL

Re: Proposed Utilization of Incinerator Ash as Raw Material
Tarmac Cement Plant
Dade County, Florida

Dear Mr. Fancy:

In May of this year, Metro Dade County Division of Solid Waste informed the Department as to its desire to utilize ash from the Dade County Resources Recovery facility as a raw material in Tarmac Florida's portland cement plant (refer to letter from Tanhum Goldshmid to Steve Smallwood dated May 28, 1991). The Department responded to this inquiry in a letter dated July 1, 1991. The response indicated that a federally enforceable air construction permit would have to be obtained prior to implementing this change, and even prior to a trial run with this material.

I have reviewed Dade County's request to the Department, and Tarmac's most recent operating permit renewal application and subsequent operating permit. Based on this review, it is apparent that the incinerator ash Tarmac desires to utilize is already approved for use. The previous applications submitted by Tarmac have stated a raw material used in the process is "ash/mineral aggregates". Clearly, Dade County incinerator ash would fall under this raw material category. Therefore, I do not believe that a permit modification or amendment is needed in order for Tarmac to use this raw material.

Although Tarmac and I do not believe any FDER approvals are necessary to utilize this ash, Tarmac has asked me to provide you with information to allow a better understanding of the utilization of this ash. Tarmac currently uses combustor ashes as a raw material in the manufacture of Portland cement clinker. The ashes are needed to provide the required alumina, iron and silica components of the raw mix. These components, along with high calcium carbonate limestone, undergo a chemical transformation in the kiln to produce portland cement clinker.

In order to present an absolute worst case estimate of the potential effect of utilizing the Dade County ash in the process, I have taken a very conservative approach. Tarmac currently projects to utilize a limestone-to-ash ratio of 7 to 1 in the process. This equates to a maximum of 14.3% ash in the raw feed. Tarmac currently is permitted to emit 42.6 lb/hr of particulate at a feed rate of 142 tons/hr for kiln 3. It was assumed that Tarmac currently emits no trace metals, and that 14.3% of the particulate emitted from the kiln is ash (same proportion as in the raw feed). This 14.3% of the particulate

KBN ENGINEERING AND APPLIED SCIENCES, INC.
1934 Northwest 67th Street Gainesville, Florida 32605 904/331-9000 FAX: 904/332-4189

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emission was then assumed to contain trace metals in the same concentration as indicated in the attached analysis of Dade County ash. The following conservative emission estimates were obtained:

Arsenic-	42.6 lb/hr x 0.143 x 25 ppm = 0.00015 lb/hr
Beryllium-	42.6 lb/hr x 0.143 x 0.9 ppm = 0.0000055 lb/hr
Cadmium-	42.6 lb/hr x 0.143 x 30 ppm = 0.00018 lb/hr
Chromium-	42.6 lb/hr x 0.143 x 54 ppm = 0.00033 lb/hr
Lead-	42.6 lb/hr x 0.143 x 1,500 ppm = 0.0091 lb/hr
Mercury-	42.6 lb/hr x 0.143 x 0.1 ppm = 0.00000061 lb/hr
Chloride-	42.6 lb/hr x 0.143 x 7,000 ppm = 0.043 lb/hr
Copper-	42.6 lb/hr x 0.143 x 5,800 ppm = 0.035 lb/hr
Nickel-	42.6 lb/hr x 0.143 x 86 ppm = 0.00052 lb/hr
Vanadium-	42.6 lb/hr x 0.143 x 38 ppm = 0.00023 lb/hr
Iron-	42.6 lb/hr x 0.143 x 27,300 ppm = 0.17 lb/hr

As shown, these emissions are extremely small.

Pursuant to DER Rule 17-2.210, any "modification" to an existing source must be the subject of an air construction permit. Rule 17-2.100(127) provides that a "modification" is any "change in the method of operation of" an existing source. Utilizing incinerator ash is not a "change" because Tarmac's previous applications identified "ash/mineral aggregates" as the contemplated raw material, and the conditions of Tarmac's permits authorize operation in accordance with the representations made in the applications.

Tarmac desires to move forward with this project. Please advise if this is acceptable, since Tarmac is proceeding with a test burn and stack testing as recommended in your letter.

Sincerely,

David A. Buff

David A. Buff, M.E., P.E.
Principal Engineer

cc: Al Townsend

90086/A1/1

Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Lawton Chiles, Governor

Carol M. Browner, Secretary

September 27, 1991

Donald H. Udelson
11906 Southwest 48th Street
Cooper City, Florida 33330

Dear Mr. Udelson:

Secretary Browner asked me to respond to your recent card concerning the potential expansion of the Montenay operated Dade County Resource Recovery Facility. The Department is aggressively seeking corrections at the facility. We have implemented a mercury review task force and are now requiring air pollution control systems capable of reducing mercury emissions. Before we allow building of new facilities, we will require Montenay to provide additional control equipment on the old units.

State policy requires achievement of at least 30% recycling. Dade County will have to satisfy such policies before we would support more incineration.

Thank you for your interest in this matter.

Sincerely,

Hamilton S. Oven, Jr.

Hamilton S. Oven, Jr., P.E.
Administrator
Siting Coordination Office
Division of Air Resources
Management

HSO/ah

Brown and Caldwell
Consultants

6101 Northwest 11th Street
Suite 200
Miami
Florida 33126-2049
(305) 266-6667
FAX (305) 266-6620

Dade RRF

September 20, 1991

CERTIFIED MAIL NO: P818 375 837

Mr. Joe Lurix
Solid Waste Section
Florida Department of Environmental Regulation
1900 South Congress Avenue, Suite A
West Palm Beach, FL 33406

5674-10

Subject: Ash Residue Management Plan Dade County Resources Recovery Facility.

This letter serves as Dade County's Department of Solid Waste Management response to the FDER letter of July 22, 1991 to Ms. Dolores Smith, requesting additional information for the Ash Residue Management Plan (ARMP) to comply with the Florida Administrative Code Rule 17-702. Per our telephone conversation of September 13, 1991, this letter provides the information requested and serves as an addendum to the ARMP, dated June 1991.

The items identified by the FDER requiring additional information are: 1) an estimate of the quantities of bottom ash and fly ash to be generated by the facility on an annual and daily basis, 2) an identification and estimate of the quantity of ash residue that can be segregated for recycling before disposal, 3) the addressing of beneficial uses of ash residue, 4) a Quality Assurance/Quality Control plan, and 5) the identifying of contractual requirements, notification, and inspection procedures to assure that hazardous wastes are not received or burned at the facility. Our response to these items is as follows:

Item 1) The estimated quantities of bottom ash and fly to be generated by the facility on a yearly and daily basis have been calculated and are presented in Attachment I. These quantities have been prepared for the 3 scenarios described in the ARMP Chapter 2, pages 9-13.

Item 2) An identification and quantification of ash that can be recycled prior to disposal is presented in Attachment I under Scenario 1. The recyclable materials have not been identified or quantified for Scenarios 2 and 3 since these cases are not in use at this time.

Item 3) The possible beneficial uses of ash residue are described in the ARMP, Chapter 3 pages 4-6.

Item 4) The Quality Assurance/Quality Control (QA/QC) plan will be submitted as part of the Dade County Solid Waste System Quality Assurance Plan which is now being finalized for submittal to the Quality Assurance Section of the FDER in Tallahassee. A copy will be sent to you in Palm Beach and per our

conversation of September 13, 1991, approval of the Quality Assurance Plan by the Quality Assurance Section shall be sufficient for acceptance of the plan as the QA/QC plan required for the ARMP.

Item 5) Contractual requirements, notification and inspection procedures to ensure that hazardous wastes are not received or burned at the facility are present in the Amended and Restated Operations and Management Agreement between Dade County and Montenay Power Corp, the facility operator, dated December 20, 1990. A copy of the pertinent sections of this agreement are found in Attachment II. Additionally, the facility is inspected during all hours of operation by Code Enforcement Officers to insure that no hazardous wastes are processed at the facility. The ash is analyzed using the TCLP method and the results are submitted to the Dade County Department of Environmental Resources Management on a quarterly basis.

I trust that this letter addresses and satisfies your concerns with the ARMP for the Dade County Resources Recovery Facility dated June 1991. If more information is needed or you have any questions, please give me a call.

Very truly yours,

BROWN AND CALDWELL

Benjamin F. Gilbert, Jr.
Project Engineer

Edward W. Znoj, P.E.
Project Manager

RECEIVED
SEP 26 1991
Division of Air
Resources Management

BFG:mcs
Enclosures

cc: T. Goldshmid, DCDSWM, w/o Attachment II
L. Moscato, DCDSWM, w/o Attachment II
R. Donelon, FDER, OCG/Tlh, w/o Attachment II
B. Oven, FDER, Power Plant Coordinator/Tlh, w/o Attachment II
J. Reese, FDER, SW/Tlh, w/o Attachment II
S. Labie, FDER, QAS/Tlh, w/o Attachment II
L. Cuniff, MDCDERM, w/o Attachment II
C. Meeds, DER/WPB, w/o Attachment II

ATTACHMENT I

Items 1 and 2

This section presents estimates of the quantities of bottom ash and fly ash to be generated by the facility on an annual and on a daily basis (F.A.C. Chapter 17-702.400(2)). The quantities are presented for the three scenarios as analyzed in Chapter 2, page 9, of the Ash Residue Management Plan (ARMP) for the Dade County Resources Recovery Facility, June 1991. All rates are based on 80 percent facility operating availability. Data is taken from Appendix B of the ARMP.

Scenario 1

Bottom Ash Generated:	(4523 lbs/hr * 80% * 24hrs/day * 4 boilers) / 2000 lbs/ton =	173.7 tons/day
Fly Ash Generated:	(4523 lbs/hr * 80% * 24 hrs/day * 4 boilers) / 2000 lbs/ton =	173.7 tons/day
Combined Total Ash Generated		347.4 tons/day

Bottom Ash Generated:	173.7 tons/day * 365 days/yr =	63,400 tons/yr
Fly Ash Generated:	173.7 tons/day * 365 days/yr =	63,400 tons/yr
Combined Total Ash Generated		126,800 tons/yr

Estimated quantities of ash that can be segregated for recycling prior to disposal:

The 126,800 tons/yr of ash consists of 95 percent fine ash and 4 percent metals (e.g. ferrous, copper, brass) which can be recycled and 1 percent oversized material which is not recyclable, therefore, 99 percent of the ash can be recycled.

5,072 tons/yr of metals and 1,268 tons/yr of oversize
+ 120,460 tons/yr of recyclable ash = 126,800 tons/yr

Scenario 2

Bottom Ash Generated:	(4704 lbs/hr * 80% * 24 hrs/day * 4 boilers) / 2000 lbs/ton =	180.6 tons/day
Fly Ash Generated:	(5804 lbs/hr * 80% * 24 hrs/day * 4 boilers) / 2000 lbs/ton =	222.9 tons/day
Combined Total Ash Generated		403.5 tons/day

ATTACHMENT 1 (Continued)

Bottom Ash Generated:	180.6 tons/day * 365 days/yr =	65,919 tons/yr
Fly Ash Generated:	222.9 tons/day * 365 days/yr =	81,358 tons/yr
Combined Total Ash Generated		147,277 tons/yr

Scenario 3

Bottom Ash Generated:	[(4704 lbs/hr * 4 blrs) + (5880 lbs/yr * 2 blrs)] * 80% * 24 hrs/day / 2000 lbs/ton =	293.5 tons/day
Fly Ash Generated:	[(5804 lbs/hr * 4 blrs) + (7255 lbs/hr * 2 blrs)] * 80% * 24 hrs/day / 2000 lbs/ton =	362.2 tons/day
Combined Total Ash Generated		655.7 tons/day

Bottom Ash Generated:	293.5 tons/day * 365 days/yr =	107,127 tons/yr
Fly Ash Generated:	362.2 tons/day * 365 days/yr =	132,203 tons/yr
Combined Total Ash Generated		239,330 tons/yr

Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Lawton Chiles, Governor

Carol M. Browner, Secretary

September 4, 1991

Mr. Juan M. Portuondo
President
Montenay Power Corp.
3225 Aviation Avenue
Miami, FL 33133

Dear Mr. Portuondo:

This is to clarify Special Condition I.A.4. of the Conditions of Certification for the Dade County Resource Recovery Facility (Case No. PA 77-08) which states:

> The incinerator boiler(s) shall not be loaded in excess of their capacity of 156,400 pounds per hour.

The units (pounds per hour) referred to in the above referenced condition applies to RDF throughput capacity, <u>not</u> steam capacity.

Sincerely,

Hamilton S. Oven, Jr.

Hamilton S. Oven, Jr., P.E.
Administrator
Siting Coordination Office
Division of Air Resources Management

1L0904FG

State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

For Routing To Other Than The Addressee	
To	Location
To	Location
To	Location
From	Date

Interoffice Memorandum

TO: Steve Palmer

FROM: Preston Lewis

DATE: July 1, 1991

SUBJ: Dade County Resource Recovery Plant Expansion (POS)

The subject POS was reviewed by Air Permitting and Standards. The POS did discuss air emissions, BACT and PSD. The application should provide considerable detail on the type of controls, emission levels not only for the primary pollutants but for the toxins as well. Each pollutant exceeding the PSD Significance Level must be included in the BACT analysis evaluating the various methods of control, economic evaluations and rationale. Since this is not only an expansion but a modification of the existing facilities as well separate discussions may be appropriate for "existing" and "new".

METRO DADE
SOLID WASTE MANAGEMENT

RECEIVED
JUN 07 1991
Division of Air Resources Management

May 28, 1991

Mr. Steve Smallwood, Director
Division of Air Resources Management
Florida Department of Environmental Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Dear Mr. Smallwood:

The Dade County Department of Solid Waste Management (DSWM) is currently investigating recycling of ash residue generated from our Resources Recovery Facility. One possible way to utilize the ash is to incorporate it into cement which would subsequently be used in building materials such as concrete blocks. The Department has conducted preliminary meetings with local companies expressing interest in this idea, along with DERM representatives.

John Glunn of DER has indicated that a trial burn must be conducted prior to utilization of waste materials by an existing facility. Test parameters are determined by the composition of the waste and the potential for generation of secondary pollutants. The DSWM has taken the initiative in characterizing the source material by processing a representative ash sample and having it analyzed for the parameters recommended by DER. The sample was sized to a 3/4-inch diameter and a portion of the ferrous component removed by magnets. The sample was then coned and quartered according to ASTM Standards, and analyzed for metals and various organics (see attached).

The TCLP results indicate that the ash does not contain toxic levels of metals. The concentrations of the five metals with TCLP standards were well below the regulatory level. Based on a comparison of the total quantity of these metals to the TCLP quantity, the leaching potential appears to be minimal.

The presence of total cadmium, chromium, lead and arsenic in quantities above the previous DER guidance levels (BAQM, 1987) for decontamination of soils in asphalt plants does warrant further consideration. The ash will be incorporated into the cement process in approximately a one to seven ratio, however, which will bring the concentration of chromium and arsenic below the guidance level.

8675 Northwest 53rd Street, Suite 201, Miami, Florida 33166 • 305-592-1776

The organics analyses indicate no phthalates, dioxins, or furans present in the sample. Napthalene was the only polyaromatic hydrocarbon detected, at a concentration of less than 1 ppm. Based on the fact that organics generally were not detected in the source material, and conditions in the cement rotary kiln (temperature and residence time) which would effectively destroy fugitive organics, we do not feel that further testing of organics is warranted.

The preliminary results are encouraging and do not indicate that incorporation of Resource Recovery ash residue into cement would endanger human health or the environment. The ratio at which the ash will be incorporated into the cement will further minimize environmental impacts. The focus in stack testing should be on the metals which may have a negative impact on air quality. The results of the stack test will be the determining factor in whether this process is acceptable and if modifications in existing air permits will be required at the facilities.

The DSWM intends to strictly comply with criteria listed in DER 17-702.600 for recycling of ash residue. I am confident that we can work together to establish an outstanding program. Utilizing the ash in this manner will help the County to meet its 1994 recycling goal, and reduce the need to site additional ash monofills. I look forward to your concurrence on the stack test parameters.

Sincerely,

T Gold

Tanhum Goldshmid
Assistant Director
Technical Services

DS/CD

Attachment

cc: Carl Pfaffenberger, DERM
Pat Wong, DERM
Rick Poley, DERM
John Glunn, DER
Buck Oven, DER
II. F207

SPECTRUM
Laboratories, Inc. FORT LAUDERDALE • SAVANNAH

CLIENT	DCSW	DATE REPORTED:	05/15/91
SAMPLE LOCATION	#1 ASH	EPA:	# FL095
SAMPLE NUMBER	001-041891	FL DRINKING WATER:	# 86144
DATE RECEIVED	04/18/91	FL ENVIRONMENTAL:	# E86006
DATE SAMPLED	04/11/91	GEORGIA:	# 828
SAMPLE TYPE	SOIL	SOUTH CAROLINA:	# 96015
SUBMITTER	RALPH TARDIF		

TEST		RESULTS	
TCLP EXTRACTION - METALS		05/01/91	
CADMIUM TCLP	SM 304	0.03	MG/L
CHROMIUM TCLP	SM 304	0.04	MG/L
LEAD TCLP	SM 303A	0.24	MG/L
MERCURY TCLP	SM 303F	<0.0002	MG/L
ARSENIC TCLP	SM 304	0.006	MG/L
COPPER TCLP	EPA 220.1	0.32	MG/L
CADMIUM,T	3050/7131	30.00	MG/KG D.W.
CHROMIUM,T	3050/7191	54.0	MG/KG D.W.
LEAD,T	3050/7421	1500.0	MG/KG D.W.
MERCURY,T	7471	<0.1	MG/KG D.W.
ARSENIC,T	3050/7060	25.00	MG/KG D.W.
IRON,T	3050/7380	27300	MG/KG D.W.
COPPER,T	3050/7210	5800.0	MG/KG D.W.
NICKEL,T	3050/7520	86.0	MG/KG D.W.
VANADIUM,T	3050/7911	38	MG/KG D.W.
BERYLLIUM,T	3050/7091	0.9	MG/KG D.W.
IRON TCLP		0.05	MG/L
NICKEL TCLP		<0.03	MG/L
VANADIUM TCLP		0.55	MG/L
BERYLLIUM TCLP		<0.002	MG/L
CHLORIDE IN SOLID SAMPLE		7000	MG/KG
EPA 8280		NEGATIVE	
EPA 8100		POSITIVE	
EPA 8060		NEGATIVE	
DIOXIN	EPA 625	<0.1	UG/L

IF YOU HAVE ANY QUESTIONS PLEASE CONTACT ME.

DONALD S. MCCORQUODALE, JR. PH.D.
MICROBIOLOGIST

4550 N. Dixie Hwy., Ft. Lauderdale, Fla. 33334 • Phone: (305) 491-4691 • 630 Indian Street, Savannah, Ga. 31401 • Phone (912) 238-5050

SPECTRUM
Laboratories, Inc. FORT LAUDERDALE • SAVANNAH

-CERTIFICATIONS-
EPA: #FL095
FL DRINKING WATER: #86144
FL ENVIRONMENTAL: #E86006
GA # 828
SC # 96015

CLIENT: D.C.S.W./001-041891
SAMPLE: #1 ASH
DATA FILE: >5A84A::D5
DATE ANALYZED: 5/11/91 0:42
DILUTION FACTOR: 100.00

EPA METHOD 8100

CAS NO.	PARAMETER	CONCENTRATION (ug/kg)	* MDL (ug/kg)
83-32-9	ACENAPHTHENE	0.0	0.50
208-96-8	ACENAPHTHYLENE	0.0	0.50
120-12-7	ANTHRACENE	0.0	1.00
56-55-3	BENZO(a)ANTHRACENE	0.0	1.00
50-32-8	BENZO(a)PYRENE	0.0	2.00
205-99-2	BENZO(b)FLUORANTHENE	0.0	1.25
191-24-2	BENZO(ghi)PERYLENE	0.0	2.50
207-08-9	BENZO(k)FLUORANTHENE	0.0	1.25
218-01-9	CHRYSENE	0.0	2.50
53-70-32	DIBENZO(ah)ANTHRACENE	0.0	1.00
206-44-0	FLUORANTHENE	0.0	1.00
86-73-7	FLUORENE	0.0	0.50
193-39-5	INDENO(1,2,3-cd)PYRENE	0.0	0.50
91-20-3	NAPHTHALENE	550.0	0.50
85-01-8	PHENANTHRENE	0.0	1.00
129-00-0	PYRENE	0.0	1.00
	MISCELLANEOUS ANALYTES		
	1-METHYLNAPHTHALENE	0.0	0.50
	2-METHYLNAPHTHALENE	0.0	0.50

* MDL METHOD DETECTION LIMIT - Is actually MDL * DILUTION FACTOR.

LYLE A. JOHNSON - Chemist

4550 N. Dixie Hwy., Ft. Lauderdale, Fla. 33334 • Phone: (305) 491-4691 • 630 Indian Street, Savannah, Ga. 31401 • Phone (912) 238-5050

SPECTRUM
Laboratories, Inc. FORT LAUDERDALE • SAVANNAH

-CERTIFICATIONS-
EPA: # FL095
FL DRINKING WATER: #86144
FL ENVIRONMENTAL: #E86006
GA # 828
SC # 96015

CLIENT: D.C.S.W./001-041891
SAMPLE: #1 ASH
DATA FILE: >5A84A::D5
DATE REPORTED: 5/11/91 0:42
DILUTION FACT: 100.0

EPA METHOD 8060
PHTHALATES IN - SOILS

CAS No.	PARAMETER	CONCENTRATION (ug/kg)	* MDL (ug/kg)
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	0.0	0.50
85-68-7	BUTYLBENZYLPHTHALATE	0.0	0.50
84-74-2	DI-n-BUTYLPHTHALATE	0.0	1.00
84-66-2	DIETHYLPHTHALATE	0.0	1.00
131-11-3	DIMETHYLPHTHALATE	0.0	0.50
117-84-0	DI-n-OCTYL PHTHALATE	0.0	0.50

* MDL METHOD DETECTION LIMIT - Is actually MDL x DILUTION FACTOR.
A CONCENTRATION OF 0.0 = BMDL (BELOW METHOD DETECTION LIMIT)

LYLE A. JOHNSON - Chemist

Analyte	50-m CP-Sil-88	30-m DB-5	3--m SP-2250
2,3,7,8-TCDF	25.2	17.8	26.7
2,3,7,8-TCDD	23.6	17.4	26.7
1,2,3,4-TCDD	24.1	17.3	26.5
1,2,3,4,7-PeCDD	30.0	20.1	28.1
1,2,3,4,7,8-HxCDD	39.5	22.1	30.6
1,2,3,4,6,7,8-HpCDD	57.0	24.1	33.7
OCDD	NM	25.6	NM

*Retention time in min, using temperature programs shown below.

NM = not measured.

Temperature Programs:

CP-Sil-88	60°C-190°C at 20°/min; 190°-240° at 5°/min.
DB-5 30 m x 0.25 mm thin film (0.25 um)	170°, 10 min; then at 8°/min to 320°C, hold at 320°C 20 min (until OCDD elutes).
SP-2250	70°-320° at 10°/minute.

Column Manufacturers

CP-Sil-88	Chrompack, Incorporated, Bridgewater, New Jersey
DB-5,	J and W Scientific, Incorporated, Rancho Cordova, California
SP-2250	Supelco, Incorporated, Bellefonte, Pennsylvania

SOLID WASTE FILE

Fine Jacobson Schwartz Nash Block & England

One CenTrust Financial Center
100 Southeast 2nd Street
Miami, Florida 33131-2112
(305) 577-4000
Fax (305) 577-4088

Bernard Jacobson
(305) 577-4100 Direct Dial

January 31, 1991

Morgan I. Levy
President
West Dade Federation of
Homeowner Associations
One Costa del Sol Boulevard
Miami, FL 33178

Dear Mr. Levy:

We represent Montenay Power Corp., the operator of the Dade County Resource Recovery Plant ("Plant"). Our client has provided us with a copy of your letter of January 14 to Alex Padvor of the Florida Department of Environmental Regulation, copies of which were furnished to Senator Bob Graham, Representative Lawrence Smith and three Dade County Commissioners. Our client is shocked and angered by your blatant effort to damage its business and Dade County's plans to expand the Facility by wrongly accusing Montenay of the problems which allegedly afflict you and others who live in your neighborhood.

Montenay representatives have met with you on several occasions to point out to you that within the vicinity of your residence there are numerous parcels of land upon which waste is dumped. Prior to your letter of January 14, Montenay representatives showed you aerial photographs taken recently of garbage and trash dumps, illegal burning of tires and many other sources of odors in the general vicinity. Some of these sites are authorized landfills, others are not. Moreover, your residential area borders an industrial area. Many of these industries are sources of odors as you well know. These factors speak for themselves. NOT TRUE

The Resource Recovery Plant has an odor control system that works effectively. Substantial monies has been expended in the past few years to insure that odors are contained inside the plant and they are. The day after your January

Barnett Bank Plaza · Suite 1100
One East Broward Boulevard
Ft. Lauderdale, Florida 33301-1806
(305) 462-2800
Fax (305) 527-8747

Barnett Bank Building · Suite 348
315 South Calhoun Street
Tallahassee, Florida 32301-1836
(904) 681-9500
Fax (904) 681-6651

14 letter was received by Montenay, an inspector for the Department of Environmental Regulation visited the Plant and made an inspection and determined that noxious odors were not emanating from the Plant.

NOT TRUE

You have wrongly and falsely accused Montenay of creating the foul odors that you claim harm you and others. That is a serious charge and in and of itself is harmful. The false charge you have made is designed to hurt Montenay in the conduct of its business. The false charge you have made is slanderous. The false charge you have made gives rise to a claim by Montenay for compensative and punitive damages. Your motives in bringing this spurious charge against Montenay are transparent. Among them is your aim to sabotage the program to expand the Plant. To achieve that end you have made slanderous, false charges against Montenay and made those harmful statements to persons of power and prominence. Montenay will hold you, your Corporation and those working with you responsible for all the damage all of you cause unless you cease this wrongful conduct now.

Very truly yours,

Bernard Jacobson

Bernard Jacobson

cc: Joan A. Remington
Michael Ginsberg
Russell Geyer
Terri Vivaldi

Edmond Benson
Senator Bob Graham
Representative Lawrence Smith
Commissioners Harvey Ruvin, Charles Dusseau, Alex Penelas

Dennis Carter, Assistant County Manager

Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Bob Martinez, Governor Dale Twachtmann, Secretary Assistant Secretary

January 3, 1991 File

1/3/91

Mr. Morgan I. Levy, President
West Dade Federation of Homeowner
Associations
One Costa del Sol Boulevard
Miami, Florida 33178

Dear Mr. Levy:

Your letter of November 14, 1990 was referred to me by Mr. Benyon. The facility is permitted under the Power Plant Certification Act. Both the air and the solid waste programs here in the Southeast District make inspections and monitor compliance with rules and Power Plant Certification (PPC) conditions.

Your letter was forwarded to me in Tallahassee. I am the Power Plant Coordinator for the Department who co-ordinates all of the concerns of the various regulatory agencies in the PPC process. Final recommendations are made to the Governor and Cabinet who decide if the expansion should be allowed based upon whether the applicant can achieve and demonstrate compliance with the Department's rules and regulations.

We share your concerns for the environment and equally criticized the prolonged history of non-compliance with solid waste management rules at the Resource Recovery of Dade County Combustor facility. This facility is currently operated by Montenay Power, Inc. for Dade County under a fifteen year contract.

Be assured that the Department is working diligently to bring this facility into compliance. It has been a long hard task since March 21, 1985 when it was necessary for the Department to file a complaint in court against Dade County and the previous operator of the facility (RRDCI). A Consent Final Judgement was ordered by the Court for Dade County.

The current operator, Montenay took over the facility in June of 1985. Since then, the facility has been under major construction and renovation through capital improvement projects to correct serious existing operational problems. While it was under construction, it was harder to achieve compliance. Twenty two DER inspections by the waste program and many more Department of Environmental Resources Management (DERM) inspections were conducted since January of 1989. They document

spillage, discharges of contaminated water, particulates in the air, broken equipment and in general an inefficient operation. We have waited out this period of repair and refurbishment through a number of delays and extensions of time.

In February of this year, construction work on the refurbishment required by the Consent Final Judgement was complete. Inspections in April and August once again documented conditions of non-compliance. These primarily have to do with spillage, and contaminated water runoff. We are now negotiating a Consent Order with Montenay and the County in an effort to resolve all these issues and bring the facility into full compliance with our rules.

Montenay has responded by designing and installing some improvements to the drainage and stormwater management systems, and commits to make more improvements to the stormwater system when it expands its facility to add two more boilers.

Montenay also promises to upgrade the emissions control devices at the time it proposes to build the new stack for the two new boilers. The air program is interested in discussing any specific air quality violations which they may have overlooked, and suggests that you call them to arrange a meeting. Please call Mr. Tom Tittle at (407) 433-2650 of our office if you wish such a meeting.

The permit for expansion will be addressed by the Governor and the Cabinet after the coordinated review by numerous state and local agencies through the Siting Coordination Office. The local District office has limited involvement in the power plant certification process.

Sincerely,

Hamilton S. Oven

Hamilton S. Oven, Jr., P.E.
Administrator
Office of Siting Coordination
Division of Air Resources
Management

HSO/ah

cc: Alex Padva, Ph.D., WPB
Tom Tittle, Air/WPB

ENERGY AND ENVIRONMENTAL ANALYSIS, INC.

1655 NORTH FORT MYER DRIVE ARLINGTON, VIRGINIA 22209 703/528-1900

October 9, 1987

DER

OCT 12 1987

BAQM

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

Dear Mr. Andrews:

Enclosed is a draft trip report on our visit to the Resource Recovery Plant on September 22. I apologize for the delay in sending it to you. We would appreciate your comments on this report and any additional information that you could provide.

We would like to thank you for your assistance and help in arranging the visits and for the data on plant emissions.

Sincerely,

Allan Taylor (for)

Viren Kothari

VK:kjw
Enclosure

Copied: Barry Andrews
Pradip Raval
CHF/BT
10/12/87 (mr)

TRIP REPORT
Visit to Miami Dade County RDF Plant

I. Combustor/Boiler Information

A. Site Information

1. Facility Name: Resource Recovery Plant
2. Address: Miami, Florida
3. Plant Contact: Mr. William A. Worrell, Chief Resource Recovery and Environmental Engineering
4. Phone Number: (305) 591-3534

B. Combustor Information

1. Facility Type: RDF Spreader Stoker
2. Number of Units: Four, three in operation at time of visit. All scheduled to be rebuilt.
3. Manufacturer: Boiler - Babcock & Wilcox, France, Grates - Detroit Stoker; to be replaced by Zurn

C. Operating Information

1. Operating Schedule: 24 hours/day, 7 days/week, 52 weeks/year
2. Waste Handling: Currently processing 12,000 tons/week; Burning 9,000 tons/week; equipment to be added
3. Power Production: Two 38.5 MW steam turbines; current generation = 50 MW

II. SITE VISIT

A. Background

On Tuesday, September 22, Viren Kothari and Robert Coleman of EEA and Barry Andrews of Florida DER were given a tour of the Miami Dade County RDF plant by Mr. William Worrell of Dade County and Mr. Charles Strong of Monternay Power Corp. who operates the plant for the county.

The RDF plant is a former Parsons-Brinheroff hydropulping facility which is in the process of being converted to RDF-3 (fluff RDF). The nominal capacity is about 3000 TPD but currently, due to renovation, the plant is able to shred only 12,000 tons per week and burns about 9,000 tons/week. Waste which can not be processed by the plant and the waste which is not burned is landfilled.

The renovations planned for the facility include the addition of additional shredder capacity and a complete rebuilding of the boilers. Current shredders have magnetic separation and glass/grit removal by means of an air knife. The new shredders will have these features and add trommel separation for small material.

The plant is receiving general municipal refuse with a heavier than normal contribution of lawn and tree clearing debris.

Electricity is produced at the plant and sold to Florida Power and Light at that company's avoided cost. Currently, the plant receives 2 to 4¢/Kwh for power. The rate fluctuates depending on the time of day.

B. Physical Plant

The facility is situated on a large property with adjacent ash disposal areas. Because of the renovation in progress, trash delivery and storage

are not handled efficiently. The storage pit feeding the shredder line is not adequate to handle the volume entering the plant and on-ground storage is used.

The general plant layout and condition also reflects the previous attempts to produce an RDF fuel via the hydropulping process. Material flow and conveyors are not designed to minimize travel times and handling of the shredded fuel and the conveyor system has a large number of transfer points and is extremely long and complicated.

Overall, the current condition and appearance of the plant is less than desirable and should improve when the renovation is complete.

C. Combustion Equipment

The plant presently uses four Detroit Stoker RDF boilers. The boilers are an adaptation of Detroit Stoker's spreader stoker used to fire coal. The current boilers use about a 70% underfire and 30% overfire air split. However, the equipment is in such poor condition (e.g., inspection doors cannot be closed, visible holes in the boiler sides) that the actual split between under and overfire air cannot be determined. At present, the grates are giving at least 8% unburned carbon in the ash. This may be an optimistic estimate as observation indicated vigorous combustion at the ash dump end of the furnace. This would indicate that combustion was not complete when the ash was dumped.

The grates are designed with a residence time of about 15 minutes with half the RDF assumed to be burned in suspension. The primary control is based on keeping the furnace exit temperature less than 1600°F. Adjustments of underfire air are possible by manual adjustments at each boiler. Normal control is based on feed rate adjustment.

The boilers are being rebuilt. The boiler height will be increased seven feet and the grates replaced with Zurn traveling grates. Overfire air will be added as cold air rather than preheated air to increase turbulence and provide additional oxygen.

D. Pollution Control Equipment

Each furnace is controlled by an ESP. The ESP's were recently rebuilt to add a third field and replace the internals of the first two fields. The precipitators are wire and plate design. Problems with the two field precipitator were some wire breakage but more severe were problems with corrosion of the plates due to cold air leakage near the bottom of the precipitator. The old ESP's were in use only five years before corrosion became so severe they had to be replaced.

The plant is subject to the NSPS limit of 0.08 grains/dscfm. The plant was tested in January and after adjustments to rapping frequencies demonstrated an emission rate of 0.03 grains/dscfm at 50% excess air.

The plant continuously records opacity. During our visit, the monitor was reading between 8 and 10% opacity which matched our observation. At the beginning of our visit, a spike in opacity was observed and was recorded on the monitors. No data is available on other pollutants. The plant expects to test for dioxins when the boiler rebuild is complete.

E. Ash

Ash is handled wet and is landfilled on site. Old ash piles have been regenerated with sod.

F. Power Sales

With three boilers running, the plant produces about 50 MW of electricity for sale to FPL. The sale price is approximately 2¢/Kwh but varies during the day up to about 4¢/Kwh. After rebuilding, the plant will generate about 76MW.

G. Costs

The rebuilding of the plant to replace the boilers and add additional processing capacity will cost about $45 million. Boiler replacement alone will cost $17 million.

In south Florida, the cost of RDF is about three times the cost of landfill. The plant charges a tipping fee of $27/ton and a total cost of $40-50/ton including pickup and transport.

Florida Department of Environmental Regulation

Southeast District • 1900 S. Congress Ave., Suite A • West Palm Beach, Florida 33406 • 407-964-9668

Bob Martinez, Governor Dale Twachtmann, Secretary John Shearer, Assistant Secretary
Scott Benyon, Deputy Assistant Secretary

NOV 30 1990

Mr. Lee Emerson
Sierra Club
P.O. Box 43-0741
South Miami, Florida 33243-0741

SW - Dade County
RRDCI
Compliance Files

Dear Mr. Emerson:

Thank you for your letter of November 6, 1990. The Combustor is permitted under The Power Plant Certification Act. Both the air and the solid waste programs here in this District make inspections and monitor compliance with rules and Power Plant Certification (PPC) conditions.

Your letter has been forwarded to Mr. Buck Oven in Tallahassee. He is the Power Plant coordinator for the Department who co-ordinates all of the concerns of the various regulatory agencies in the PPC process. Final recommendations are made to the Governor and Cabinet who decide if the expansion should be allowed based upon whether the applicant can achieve and demonstrate compliance with the Department's rules and regulations.

We share your concerns for the environment and equally criticized the prolonged history of non-compliance with solid waste management rules at the Resource Recovery of Dade County Combustor facility. This facility is currently operated by Montenay Power, Inc. for Dade County under a fifteen year contract.

Be assured that the Department is working diligently to bring this facility into compliance. It has been a long hard task since March 21, 1985 when it was necessary for the Department to file a complaint in court against Dade County and the previous operator of the facility (RRDCI). A Consent Final Judgement was ordered by the Court for Dade County.

The current operator, Montenay took over the facility in June of 1985. Since then, the facility has been under major construction and renovation through capital improvement projects to correct serious existing operational problems. While it was under construction, it was harder to achieve compliance. Twenty two DER inspections by the waste program and many more Department of Environmental Resources Management (DERM) inspections were conducted since January of 1989. They document spillage, discharges of contaminated water, particulates in the air, broken equipment and in general an inefficient operation. We have waited out this period of repair and refurbishment through a number of delays and extensions of time.

In February of this year, construction work on the refurbishment required by the Consent Final Judgement was complete. Inspections in April and August once again documented conditions of non-compliance. These primarily have to do with spillage, and contaminated water runoff. We are now negotiating a Consent Order with Montenay and the County in an effort to resolve all these issues and bring the facility into full compliance with our rules.

Montenay has responded by designing and installing some improvements to the drainage and stormwater management systems, and commits to make more improvements to the stormwater system when it expands its facility to add two more boilers.

Montenay also promises to upgrade the emissions control devices at the time it proposes to build the new stack for the two new boilers. At this time we do not require monitoring or testing for the toxic substances you mention in your letter. Nor, do we have standards for them for the current existing stacks. The air program is interested in discussing any specific air quality violations which they may have overlooked, and suggests that you call them to arrange a meeting. Please call Mr. Tom Tittle at (407) 433-2650 of our office if you wish such a meeting.

The permit for expansion will be addressed by the Governor and the Cabinet after the coordinated review by numerous state and local agencies through Mr. Buck Oven of DER in Tallahassee. The local District office has limited involvement in the power plant certification process.

In response to your comments about recycling, while it is true that many counties and local governments are not close to meeting the 30 percent recycling goal, Dade County now has the largest curbside recycling program in the country. It is also true that this goal could be more easily achieved if commercial and industrial waste recycling was more aggressively pursued. With respect to composting, the main obstacle is finding and developing markets for the product as the experience of Agripost shows.

Sincerely,

Vivek Komath
for Alexander Padva, Ph.D.
Waste Programs Administrator

DAP:cmm

cc: Buck Oven, P.E., DER/Tallahassee
Tom Tittle, Air/WPB

ENERGY AND ENVIRONMENTAL ANALYSIS, INC.
1655 NORTH FORT MYER DRIVE ARLINGTON, VIRGINIA 22209 703/528-1900

October 9, 1987

DER
OCT 12 1987
BAQM

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

Dear Mr. Andrews:

Enclosed is a draft trip report on our visit to the Resource Recovery Plant on September 22. I apologize for the delay in sending it to you. We would appreciate your comments on this report and any additional information that you could provide.

We would like to thank you for your assistance and help in arranging the visits and for the data on plant emissions.

Sincerely,

Allan Taylor (for)

Viren Kothari

VK:kjw
Enclosure

Copied Barry Andrews
Pradip Rawal
10/12/87

TRIP REPORT
Visit to Miami Dade County RDF Plant

I. Combustor/Boiler Information

A. Site Information

1. Facility Name: Resource Recovery Plant
2. Address: Miami, Florida
3. Plant Contact: Mr. William A. Worrell, Chief Resource Recovery and Environmental Engineering
4. Phone Number: (305) 591-3534

B. Combustor Information

1. Facility Type: RDF Spreader Stoker
2. Number of Units: Four, three in operation at time of visit. All scheduled to be rebuilt.
3. Manufacturer: Boiler - Babcock & Wilcox, France, Grates - Detroit Stoker; to be replaced by Zurn

C. Operating Information

1. Operating Schedule: 24 hours/day, 7 days/week, 52 weeks/year
2. Waste Handling: Currently processing 12,000 tons/week; Burning 9,000 tons/week; equipment to be added
3. Power Production: Two 38.5 MW steam turbines; current generation - 50 MW

II. SITE VISIT

A. Background

On Tuesday, September 22, Viren Kothari and Robert Coleman of EEA and Barry Andrews of Florida DER were given a tour of the Miami Dade County RDF plant by Mr. William Worrell of Dade County and Mr. Charles Strong of Monternay Power Corp. who operates the plant for the county.

The RDF plant is a former Parsons-Brinheroff hydropulping facility which is in the process of being converted to RDF-3 (fluff RDF). The nominal capacity is about 3000 TPD but currently, due to renovation, the plant is able to shred only 12,000 tons per week and burns about 9,000 tons/week. Waste which can not be processed by the plant and the waste which is not burned is landfilled.

The renovations planned for the facility include the addition of additional shredder capacity and a complete rebuilding of the boilers. Current shredders have magnetic separation and glass/grit removal by means of an air knife. The new shredders will have these features and add trommel separation for small material.

The plant is receiving general municipal refuse with a heavier than normal contribution of lawn and tree clearing debris.

Electricity is produced at the plant and sold to Florida Power and Light at that company's avoided cost. Currently, the plant receives 2 to 4¢/Kwh for power. The rate fluctuates depending on the time of day.

B. Physical Plant

The facility is situated on a large property with adjacent ash disposal areas. Because of the renovation in progress, trash delivery and storage

are not handled efficiently. The storage pit feeding the shredder line is not adequate to handle the volume entering the plant and on-ground storage is used.

The general plant layout and condition also reflects the previous attempts to produce an RDF fuel via the hydropulping process. Material flow and conveyors are not designed to minimize travel times and handling of the shredded fuel and the conveyor system has a large number of transfer points and is extremely long and complicated.

Overall, the current condition and appearance of the plant is less than desirable and should improve when the renovation is complete.

C. Combustion Equipment

The plant presently uses four Detroit Stoker RDF boilers. The boilers are an adaptation of Detroit Stoker's spreader stoker used to fire coal. The current boilers use about a 70% underfire and 30% overfire air split. However, the equipment is in such poor condition (e.g., inspection doors cannot be closed, visible holes in the boiler sides) that the actual split between under and overfire air cannot be determined. At present, the grates are giving at least 8% unburned carbon in the ash. This may be an optimistic estimate as observation indicated vigorous combustion at the ash dump end of the furnace. This would indicate that combustion was not complete when the ash was dumped.

The grates are designed with a residence time of about 15 minutes with half the RDF assumed to be burned in suspension. The primary control is based on keeping the furnace exit temperature less than 1600°F. Adjustments of underfire air are possible by manual adjustments at each boiler. Normal control is based on feed rate adjustment.

The boilers are being rebuilt. The boiler height will be increased seven feet and the grates replaced with Zurn traveling grates. Overfire air will be added as cold air rather than preheated air to increase turbulence and provide additional oxygen.

D. Pollution Control Equipment

Each furnace is controlled by an ESP. The ESP's were recently rebuilt to add a third field and replace the internals of the first two fields. The precipitators are wire and plate design. Problems with the two field precipitator were some wire breakage but more severe were problems with corrosion of the plates due to cold air leakage near the bottom of the precipitator. The old ESP's were in use only five years before corrosion became so severe they had to be replaced.

The plant is subject to the NSPS limit of 0.08 grains/dscfm. The plant was tested in January and after adjustments to rapping frequencies demonstrated an emission rate of 0.03 grains/dscfm at 50% excess air.

The plant continuously records opacity. During our visit, the monitor was reading between 8 and 10% opacity which matched our observation. At the beginning of our visit, a spike in opacity was observed and was recorded on the monitors. No data is available on other pollutants. The plant expects to test for dioxins when the boiler rebuild is complete.

E. Ash

Ash is handled wet and is landfilled on site. Old ash piles have been regenerated with sod.

F. Power Sales

With three boilers running, the plant produces about 50 MW of electricity for sale to FPL. The sale price is approximately 2¢/Kwh but varies during the day up to about 4¢/Kwh. After rebuilding, the plant will generate about 76MW.

G. Costs

The rebuilding of the plant to replace the boilers and add additional processing capacity will cost about $45 million. Boiler replacement alone will cost $17 million.

In south Florida, the cost of RDF is about three times the cost of landfill. The plant charges a tipping fee of $27/ton and a total cost of $40-50/ton including pickup and transport.

R.A. gh (3)

Bill Gunter
STATE TREASURER
INSURANCE COMMISSIONER
FIRE MARSHAL

State of Florida

RECEIVED
AUG 17 1987
Office of the Secretary

Department of Insurance and Treasurer

THE CAPITOL
TALLAHASSEE 32301

August 11, 1987

RECEIVED
AUG 20 1987
DIVISION OF
ENVIRONMENTAL PERMITTING

Mr. David M. Kingsberg
3527 Estepona Avenue
Miami, Florida 33178

Dear Mr. Kingsberg:

Thank you for your recent letter concerning the N.W. 58th Street garbage incinerator in Dade County. I was sorry to hear of your illness.

As a member of the Power Plant Siting Board, I give the decisions that body makes my most careful consideration. Please be assured that I will take your personal situation and comments into account when we review the location of these facilities in the future.

Also, I have taken the liberty of forwarding a copy of your letter to Mr. Dale Twachtmann, Secretary of the Department of Environmental Regulation. His agency is directly responsible for maintaining air quality.

I too believe that all Floridians have a right to clean air. While this letter will not alleviate your malady, please know that your protest has been heard.

No enclosure
Ow 8/18/87
8 6392

Sincerely,

Bill Gunter
State Treasurer and
Insurance Commissioner

BG:wah

✓ cc & enclosure: Dale Twachtmann, Secretary, DER

DEPARTMENT OF ENVIR MENTAL REGULATION

ROUTING AND TRANSMITTAL SLIP

ACTION NO

ACTION DUE DATE

1. TO: (NAME, OFFICE, LOCATION) — Initial / Date
Juke Stacklyn

2. — Initial / Date
Randy Armstrong

3. — Initial / Date
Ricky Buck ok by to

4. — Initial / Date
get enclosure and o.e. of

REMARKS:
response is necessary. Let me know.

Called Ms. Howard in Gunter's office. She will be sending attachment over. CW

RECEIVED AUG 19 1987 DIVISION OF ENVIRONMENTAL PERMITTING

Attachment rec'd 8/24 CW

FROM: Pam McVety

DATE 8/18

PHONE

INFORMATION
- Review & Return
- Review & File
- Initial & Forward

DISPOSITION
- Review & Respond
- Prepare Response
- For My Signature
- For Your Signature
- Let's Discuss
- Set Up Meeting
- Investigate & Report
- Initial & Forward
- Distribute
- Concurrence
- For Processing
- Initial & Return

DEPARTMENT OF ENVIRONMENTAL REGULATION

ROUTING AND TRANSMITTAL SLIP

ACTION NO

ACTION DUE DATE

1. TO: (NAME, OFFICE, LOCATION) — Initial / Date
~~Rick Wilkins~~

2. — Initial / Date
~~Randy Armstrong~~

3. — Initial / Date
Buck

4. — Initial / Date
OK 9/1

REMARKS:
I do not think a reply is necessary. Residence is no closer than 1.4 miles. Wind from source to home no more than 10% of time. His assertion that the incinerator is killing him is based on lead levels in his hair. For people living in air conditioned houses, not that much lead should becoming in. In urban areas near heavy traffic, kids can pick up lead via injection of dirty objects. Not likely in adults unless from unwashed garden vegetables

Buck Owen

FROM:

DATE

PHONE

INFORMATION
- Review & Return
- Review & File
- Initial & Forward

DISPOSITION
- Review & Respond
- Prepare Response
- For My Signature
- For Your Signature
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Bill Gunter
STATE TREASURER
INSURANCE COMMISSIONER
FIRE MARSHAL

State of Florida

Department of Insurance and Treasurer

THE CAPITOL
TALLAHASSEE 32301

August 11, 1987

Mr. David M. Kingsberg
3527 Estepona Avenue
Miami, Florida 33178

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Also, I have taken the liberty of forwarding a copy of your letter to Mr. Dale Twachtmann, Secretary of the Department of Environmental Regulation. His agency is directly responsible for maintaining air quality.

I too believe that all Floridians have a right to clean air. While this letter will not alleviate your malady, please know that your protest has been heard.

Sincerely,

Bill Gunter
State Treasurer and
Insurance Commissioner

BG:wah

✓cc & enclosure: Dale Twachtmann, Secretary, DER

David M. Kingsberg
3527 Estepona Ave.
Miami, FL 33178

July 30, 1987

The Honorable Bill Gunter
State of Florida
Treasurer
Capitol Building
Tallahassee, FL 32301

Dear Mr. Gunter:

I am a very ill resident of Dade County. I am so ill that I can no longer function in a normal manner, and can no longer cope with my everyday activities at home, nor with my everyday duties at work.

The N.W. 58th Street garbage incinerator is KILLING me, and please know that I am choosing my words very carefully.

My family and I have been residents of Dade County for 31 years. We carefully selected this area to live in. Our children grew up here. I love Miami and Dade County, and have no desire to live anywhere else.

However, my life is being sacrificed by living here.

I am enclosing a Mineral Analysis Report, dated 7/15/85. Please note the lead level. I know it is much higher now, and it was in the danger level then.

The human body was not meant to ingest the toxic, poisonous off-gasses that make up the very air that we breathe all the time.

After the garbage burning nights, I am always sick. I am in bed that night at 7:00 p.m., and can just barely get to my bed. Many mornings I cannot get out of bed until my wife has given me a cold face cloth to hold to my forehead so that I can come out of my semi coma state.

In this wonderful country many people demand various things as rights, when really they are privileges. However one right that people do have is the right to breathe - and that right has been taken away from me.

I am not alone, as many people living and working within several miles of the incinerator area are sick - very sick.

I am appealing to you Dade County and State of Florida officials to remove this poison belching monster.

filename "DADEGB" 12 pitch 26

I am just one person but I am one very ill person. So far our pleas have met with indifference and a "Don't give a damn" attitude. I can't think of any one issue as important as the lives of hundreds of people who are systematically being poisoned.

I cannot continue to suffer in silence. Suffer is the right word, because this is Miami in July. The stifling stench does not allow me to open my windows, and my air conditioner is useless because it keeps re-circulating smelly, toxic air, and I stare at the ceiling almost all night, every night.

Please hear me because my life is on the line. The quality of my life, and those around me, is nil.

Please act - now.

Thank you for your understanding. I would like to be able to thank you soon for your caring actions.

Very truly yours,

David M. Kingsberg

David M. Kingsberg

P.S. I have just seen on T.V. that a second incinerator is to be voted upon on Sept. 3, 1987. With all of the miseries and suffering that the first incinerator has brought, how can a second incinerator even be considered?

DOCTOR'S DATA
P.O. Box 199 30W101 Roosevelt Rd.
West Chicago, IL 60185 U.S.A.
800/323-2784
In Illinois:
312/231-3649

PATIENT: [illegible] AGE: [illegible] SEX
DOCTOR: [illegible] ACCT: [illegible]
LAB NO: [illegible] DATE IN: [illegible] DATE OUT: [illegible]
DATE SAMPLED: [illegible] SHAMPOO: [illegible] SAMPLE SIZE: [illegible]
OFFICE CODE: [illegible] HAIR COLOR: [illegible] SAMPLE TYPE: [illegible]

Nutrient Mineral Levels

NUTRIENT MINERAL	PATIENT LEVEL (parts per million)	LOW ◆ REFERENCE RANGE ● HIGH	NUMERICAL VALUE OF REFERENCE RANGE
Calcium	[illegible]		[illegible]
Magnesium	[illegible]		[illegible]
Sodium	[illegible]		[illegible]
Potassium	[illegible]		[illegible]
Copper	[illegible]		[illegible]
Zinc	[illegible]		[illegible]
Iron	[illegible]		[illegible]
Manganese	[illegible]		[illegible]
Chromium	[illegible]		[illegible]
Cobalt	[illegible]		[illegible]
Lithium	[illegible]		[illegible]
Molybdenum	[illegible]		[illegible]
Phosphorus	[illegible]		[illegible]
Selenium	[illegible]		[illegible]
Silicon	[illegible]		[illegible]
Vanadium	[illegible]		[illegible]

Below 2 STD DEV | Two Standard Deviations ← Below | One Standard Deviation (STD) ← Below | One Standard Deviation (STD) Above → | Two Standard Deviations Above → | Above 2 STD DEV

WHY YOUR HAIR WAS USED FOR MINERAL ANALYSIS. [illegible]

ANALYSIS ACCURACY: [illegible]

LET'S DISCUSS MINERALS. [illegible]

TOXIC MINERAL LEVELS [illegible]

HOW MINERAL LEVELS ARE DETERMINED [illegible]

PHYSICIAN INTERPRETATION NEEDED [illegible]

DEFINITION OF REPORT TERMS

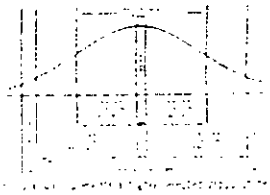
MEAN: [illegible]

REFERENCE RANGE: [illegible]

One Standard Deviation [illegible]

Two Standard Deviations [illegible]

More Than Two Standard Deviations [illegible]



NUTRIENT MINERAL LEVELS [illegible]

MALABSORPTION [illegible]

NOTICE [illegible]

Toxic Mineral Levels

TOXIC MINERAL	PATIENT LEVEL (parts per million)	HIGH → One Standard Deviation Above Mean	Two Standard Deviations Above Mean	More Than Two Standard Deviations Above Mean
Lead	[illegible]			
Arsenic	[illegible]			
Mercury	[illegible]			
Cadmium	[illegible]			
Aluminum	[illegible]			
Nickel	[illegible]			
Beryllium	[illegible]			

TOTAL TOXICS [illegible]

RACE: [illegible] SAMPLE CONDITION: [illegible]

HAIR PREPARATIONS: [illegible]

DRINKING WATER SOURCE: [illegible]

Lab Procedures According to ASETL Protocol — John J. Errera, Director

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

SOUTHEAST FLORIDA DISTRICT
1900 SOUTH CONGRESS AVENUE
WEST PALM BEACH, FLORIDA 33406

BOB MARTINEZ
GOVERNOR
DALE TWACHTMANN
SECRETARY
J. SCOTT BENYON
DISTRICT MANAGER

April 24, 1987

Dade County
SW-Resources Recovery

Mr. Joseph A. Ruiz, Jr.
Assistant Director
Metropolitan Dade County Public Works Dept.
111 Northwest 1 Street, Suite 1610
Miami, Florida 33128

Dear Mr. Ruiz:

REF: Resources Recovery, Metropolitan Dade County
Case No. PA 77-08
Conditions of Certification
Specific Condition V, Solid Wastes

SUB: Ash Residue

Since the issuance of Dade County's Power Plant Certification several years ago, the department has adopted the hazardous waste regulations promulgated by the United States Environmental Protection Agency. These regulations provide that under certain circumstances, a facility burning municipal solid wastes will not be deemed to be managing a hazardous waste subject to Subtitle C of the Resource Conservation and Recovery Act. However, this provision does not exempt such facilities from complying with the proper management and disposal of the ash residue if the ash itself is determined analytically to be a hazardous waste by failing the extraction procedure (EP) toxicity test setforth in 40 CFR 261.24.

Consequently, this office has requested that all municipal solid waste incinerators analyze their ash residue at least yearly for those parameters established in 40 C.F.R. 261.24 in accordance with those testing procedures outlined. Therefore, within sixty (60) days upon receipt of this letter, please submit the ash analysis to this office and on a yearly basis thereafter.

Should you have any questions concerning this matter, please contact Mr. Joe Lurix of this office at telephone number 305/964-9668.

Sincerely,

for Donald B. White
Vivek Kamath
Supervisor
Industrial and Solid Waste Permitting

VK:jl:lp

cc: Mr. Buck Oven, DER, Tallahassee
Ms. Stephanie Brooks, DER, WPB
Mr. Bob Johns, M-DCERM

TO: Joe Lurix

FROM: Hamilton S. Oven, Jr., P.E.

DATE: November 13, 1986

SUBJECT: Resource Recovery Dade County, Inc.

If the changes initiated by Dade County to their resource recovery plant should cause a change in any discharges or emissions, then a new power plant siting application is required by General Condition 1. If the process changes do not alter plant emissions, then Dade County need merely submit the appropriate plans and specifications to the department for review and approval. Such review and approval can be done in the District. Review of a new application would be coordinated in Tallahassee with final approval by the Siting Board.

A copy of the Conditions of Certification are attached.

HSOjr/sb

cc: Karen Brodeen

INTEROFFICE MEMORANDUM

TO: Buck Oven, Power Plant Coordinator, Tallahassee

FROM: Joe Lurix, SEF District

THRU: Scott Benyo, District Manager, SEF District

Alex Padva, Assistant District Manager, SEF District

Don White, Permitting Section Head, SEF District

DATE: October 24, 1986

SUBJ: Modification of Power Plant

REFE: Resources Recovery Dade County Inc.
97 Avenue and N.W. 58 Street
Dade County

An inspection on October 10, 1986 revealed that Metropolitan Dade County is changing the existing wet process to a conventional dry process. The hydra pulper system is being eliminated to change their process from a resource derived fuel to a mass burn facility. Please respond to the following questions pertaining to this facility.

1. Does this modification of process require that Metropolitan Dade County officially apply to change their power plant certification (PPC)?

2. Can the modification of their PPC be done by the district office or only through the governor and his cabinet?

3. Please review the Consent Final Judgement which is located in OGC to see if there are any contradictions to the above questions.

I assume that any structural changes will require the submission and approval of sealed engineering drawings by a Professional Engineer certified in the State of Florida.

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

SOUTHEAST FLORIDA DISTRICT

P.O. BOX 3858
3301 GUN CLUB ROAD
WEST PALM BEACH, FLORIDA 33402-3858

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

ROY M. DUKE
DISTRICT MANAGER

May 2, 1986

Dade County
SW-Resources Recovery
Power Plant Certification

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Received DER

MAY 5 1986

P.P.S

Mr. Lee Casey
Technical Services Manager
Montenay Power Corporation
6990 Northwest 97 Avenue
Post Office Box 6430
Miami, Florida 33152

Dear Mr. Casey:

RE: Combustible Storage Area; Drawing #GC 270-E001; Sheet 1 of 1

The Department acknowledges receipt of the above referenced design drawings. However, in order to complete this review pursuant to Section 403.087(7), Florida Statutes and Chapter 17-61 Florida Administrative Code (F.A.C.), please provide the following information:

1. Provide details and specifications of fuel storage tanks and associated piping. All details and specifications shall be signed and sealed by an engineer registered in the State of Florida including a statement from the engineer that the design is in conformance with Chapter 17-61, F.A.C.

Should you have any questions regarding this matter, please contact Mr. Joseph Lurix of this office at telephone 305/689-5800.

Sincerely,

Donald B. White

Donald B. White, P.E.
Permitting Section Head

DBW:jl:lp11

cc: Paul Ezatoff, Office of General Counsel
Buck Oven, DER, Tallahassee
Tony Clemente, Metro-Dade Cty. Env. Resources Management
Rich Walesky, DER, West Palm Beach
John Svec, DER, Tallahassee

LAW OFFICES

GREENBERG, TRAURIG, ASKEW, HOFFMAN, LIPOFF, ROSEN & QUENTEL, P.A.

LINDA KOOBRICK ADLER
MICHAEL O. ALBERTINE
CESAR L. ALVAREZ
RUDOLPH F. ARAGON
RICHARD A. ARKIN
REUBIN O'D. ASKEW
KERRI L. BARSH
HILARIE BASS
NORMAN J. BENFORD
MARK D. BLOOM
BURT BRUTON
STEVE BULLOCK
ROBERT K. BURLINGTON
ALAN R. CHASE
SUE M. COBB
KENDALL B. COFFEY
MARK B. DAVIS
OSCAR G. DE LA GUARDIA
RAFAEL O. DIAZ
ALAN T. DIMOND
CHARLES W. EDGAR, III
GARY M. EPSTEIN
THOMAS K. EQUELS
DIANE D. FERRARO
LAURA A. GANGEMI
RICHARD G. GARRETT
DAVID J. GAYNOR
LAWRENCE GODOFSKY
ALAN S. GOLD
HARVEY A. GOLDMAN
STEVEN E. GOLDMAN
STEVEN M. GOLDSMITH
LAWRENCE S. GORDON
MATTHEW B. GORSON
MELVIN N. GREENBERG
MARILYN D. GREENBLATT
ROBERT L. GROSSMAN
KENNETH C. HOFFMAN
LARRY J. HOFFMAN
ARNOLD M. JAFFEE
MARCOS D. JIMENEZ
MARTIN KALB
ROBERT A. KAPLAN
JUDITH KENNEY
TIMOTHY E. KISH
ALAN B. KOSLOW
STEVEN J. KRAVITZ
STEVEN A. LANDY
ALAN S. LEDERMAN
LAWRENCE B. LEVY
NORMAN H. LIPOFF
GARY D. LIPSON
CARLOS E. LOUMIET
JUAN P. LOUMIET
DEBBIE RUTH MALINSKY
PEDRO A. MARTIN
JOEL D. MASER
ALAN M. MITCHEL
ALICIA M. MORALES
LOUIS NOSTRO
ANTHONY J. O'DONNELL, JR.
JULIE K. OLDEHOFF
STEVAN J. PARDO
BYRON G. PETERSEN
ALBERT D. QUENTEL
DALE S. RECINELLA
LUIS REITER
NICHOLAS ROCKWELL
MARVIN S. ROSEN
RONALD M. ROSENGARTEN
DAVID L. ROSS
ROBERT D. RUBIN
KAREN D. RUNDQUIST
STEVEN T. SAMILJAN
GARY A. SAUL
CLIFFORD A. SCHULMAN
MARTIN B. SHAPIRO
MARLENE K. SILVERMAN
STUART H. SINGER
TIMOTHY A. SMITH
SAMUEL SUSI
HERBERT M. SUSKIN
YOLANDA MELLON TARAFA
GARY P. TIMIN
ROBERT H. TRAURIG
JONATHAN H. WARNER
DAVID M. WELLS
JERROLD A. WISH

AMBLER H. MOSS, JR.
ZACHARY H. WOLFF
OF COUNSEL

BRICKELL CONCOURS
1401 BRICKELL AVENUE
MIAMI, FLORIDA 33131

MIAMI (305) 579-0500
BROWARD (305) 523-8111
TELEX 80-3124
TELECOPY (305) 579-0718

100 SOUTH DIXIE HIGHWAY
WEST PALM BEACH, FLORIDA 33401
(305) 659-6333

WRITER'S DIRECT NO:

579-0777

REPLY TO: MIAMI OFFICE

June 20, 1985

Julie Cobb, Esquire
General Counsel's Office
Dept. of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301

Re: Metropolitan Dade County Electric Power Plant Siting Act Permit

Dear Ms. Cobb:

As discussed with Hilarie Bass of our office, effective this date, Metropolitan Dade County has closed on its purchase of the Electrical Generating Facility located at the Dade County Solid Waste Processing Facility and Resources Recovery (Dade County), Inc. is being replaced as the operator of the Solid Waste Processing Facility and the Electrical Generating Facility. Montenay International Corp. will now be operating the Solid Waste Processing Facility and the Electrical Generating Facility for the County.

You have previously informed this office that this change of operator will not constitute a modification of the permit requiring compliance with Florida Statue §403.516 or any other statutory or administrative procedure. Additionally, this substitution of operators is being done with the consent and authority of Resources Recovery (Dade County), Inc., as evidenced by the consent attached hereto as Exhibit "A". This letter is therefore intended only for the purposes of notifying you of this change as you previously requested.

I thank you very much for the prompt attention you have given this matter in the past. Please do not hesitate to contact me if you have any further questions or comments with reference to this matter.

Sincerely,

MATTHEW B. GORSON

MBG/sw

cc: Mr. Buck Oven
3301 Gun Club Road
P.O. Box 3858
West Palm Beach, FL 33402

CONSENT

Resources Recovery (Dade County), Inc. (the "Company"), hereby gives notice to all interested persons that as of midnight, June 20, 1985, it will no longer own or operate the Electrical Generating Facility or the Solid Waste Processing Facility located in Dade County, Florida and that it consents to Dade County's substitution of the Company with a replacement operator of its choosing.

RESOURCES RECOVERY (DADE COUNTY), INC.

By: _____
JAMES S. HAYES, President

DEPARTMENT OF ENVIRONMENTAL REGULATION

ROUTING AND TRANSMITTAL SLIP

ACTION NO

ACTION DUE DATE

1. TO: (NAME, OFFICE, LOCATION) ~~Buck Oven TLH/Pat-Bur. Bmt~~	Initial	KSO
	Date	1/22
2. ~~Suzanne~~	Initial	SPW
	Date	1/22
3. Steve Fox	Initial	
	Date	
4. Buck Oven	Initial	
	Date	

REMARKS:

I'm opposed to splitting up the certification

Buck

It sounds like John Bottcher is against it also.

SPW

INFORMATION

- [x] Review & Return
- [ ] Review & File
- [x] Initial & Forward

DISPOSITION

- [ ] Review & Respond
- [ ] Prepare Response
- [ ] For My Signature
- [ ] For Your Signature
- [ ] Let's Discuss
- [ ] Set Up Meeting
- [ ] Investigate & Report
- [ ] Initial & Forward
- [ ] Distribute
- [ ] Concurrence
- [ ] For Processing
- [ ] Initial & Return

FROM: John Bottcher

DATE 1-21

PHONE

STIPULATION FOR
TRANSFER OF CERTIFICATION

The State of Florida Department of Environmental Regulation ("DER"), Metropolitan Dade County (the "County"), and Resources Recovery (Dade County), Inc. ("RRD") hereby stipulate and agree as follows:

1. On January 9, 1978, the Governor and Cabinet of the State of Florida issued the County a certification (the "Certification") for the Dade County resources recovery facility ("the Facility"), pursuant to the provisions of the Florida Electrical Power Plant Siting Act. (A copy of the Certification is attached hereto as Exhibit "A".)

2. Under the terms of the Certification, RRD is the operator of the Facility.

3. On March 31, 1983, the County and RRD entered into a Stipulation And Final Order Confirming Arbitration Award, As Revised (the "Arbitration Award"). Paragraph 14 of Appendix A to the Arbitration Award requires the County to transfer the Certification to RRD. (A copy of Paragraph 14 of Appendix A to the Arbitration Award is attached hereto as Exhibit "B".)

4. As provided by paragraph 14 of Appendix A to the Arbitration Award, this transfer of the Certification from the County to RRD is made on the condition that such certification shall be immediately reassigned to the County upon a final adjudication that RRD has failed to operate the Facility or Electric Generation Facility in accordance with the Arbitration Award and the contracts and a final determination that reassignment is an appropriate remedy.

5. This Stipulation For Transfer Of Certification, and any reassignment of the Certification as provided in paragraph 4 hereof, shall be approved by the Governor and the Cabinet sitting as the Siting Board pursuant to the Florida Electrical Power Plant Siting Act.

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

By: _____ Dated: _____

METROPOLITAN DADE COUNTY

By: _____ Dated: _____

RESOURCES RECOVERY (DADE COUNTY), INC.

By: _____ Dated: _____

2200-R

LAW OFFICES

GREENBERG, TRAURIG, ASKEW, HOFFMAN, LIPOFF, ROSEN & QUENTEL, P.A.

LINDA KOOBRICK ADLER
MICHAEL O. ALBERTINE
CESAR L. ALVAREZ
RUDOLPH F. ARAGON
RICHARD A. ARKIN
REUBIN O'D. ASKEW
KERRI L. BARSH
HILARIE BASS
NORMAN J. BENFORD
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ALAN T. DIMOND
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GARY M. EPSTEIN
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ROBERT A. KAPLAN
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TIMOTHY E. KISH
ALAN B. KOSLOW
STEVEN J. KRAVITZ
STEVEN A. LANDY
ALAN S. LEDERMAN
LAWRENCE B. LEVY
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GARY D. LIPSON
CARLOS E. LOUMIET
JUAN P. LOUMIET
DEBBIE RUTH MALINSKY
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DALE S. RECINELLA
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RONALD M. ROSENGARTEN
DAVID L. ROSS
ROBERT D. RUBIN
KAREN D. RUNDQUIST
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GARY A. SAUL
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MARTIN B. SHAPIRO
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HERBERT M. SUSKIN
YOLANDA MELLON TARAFA
GARY P. TIMIN
ROBERT H. TRAURIG
JONATHAN H. WARNER
DAVID M. WELLS
JERROLD A. WISH

AMBLER H. MOSS, JR.
ZACHARY H. WOLFF
OF COUNSEL

BRICKELL CONCOURS
1401 BRICKELL AVENUE
MIAMI, FLORIDA 33131

MIAMI (305) 579-0500
BROWARD (305) 523-8111
TELEX 80-3124
TELECOPY (305) 579-0718

100 SOUTH DIXIE HIGHWAY
WEST PALM BEACH, FLORIDA 33401
(305) 659-6333

WRITER'S DIRECT NO:

January 17, 1985

REPLY TO: MIAMI OFFICE

RECEIVED
JAN 21 1985
Dept. of Environmental Regulation
Office of General Counsel

Mr. John Botcher
Department of Environmental Regulation
2600 Blair Stone Road
Tallahassee, Florida 32301

Re: Dade County Solid Waste Processing Facility Electric Power Plant Siting Permit

Dear Mr. Botcher:

I appreciate you taking the time in the last few days to discuss the Department of Environmental Regulation's ("DER") position with respect to the possible transfer of a portion of the Dade County Solid Waste Resources Recovery Facility Electric Power Plant Siting Act Permit from Metropolitan Dade County (the "County") to Resources Recovery (Dade County), Inc. ("RRD"). As you are aware, the Arbitration Award entered by the arbitration panel on March 1, 1983 provided that if the County did not purchase the electrical generating facility (the "EGF") by December 31, 1983, the County should endeavor to transfer that portion of the Power Plant Siting Act Permit relating to the EGF to RRD.

As I explained to you over the telephone, RRD has proposed that the County sign the enclosed stipulation in an effort to effectuate this transfer. From my prior discussions with Gary Early, and my recent conversation with you, it is apparent that the transfer can not be effectuated by the County's signature on this stipulation and that such a signature by the County would be

useless even if the County were to agree to the form. Specifically, DER representatives have indicated that the Department has some significant concerns about RRD's request that it sign off on the enclosed stipulation.

It is my understanding that DER's difficulty with signing the enclosed stipulation is based on two separate concerns. First, as you described to me on the telephone, no such severance of a permit has ever taken place. Moreover, to effectuate a severance of the Permit into two parts will require the parties to file a formal petition with DER, pursuant to the applicable Florida Statutes and administrative regulations of the Department, requesting that the Permit be modified. Such a request for modification of the Permit will require the approval of a number of state agencies, as well as final approval by the Governor and cabinet, and may require an administrative hearing before a hearing officer. While Gary Early was of the view that a modification request regarding severance of the Permit may require two separate modification proceedings, you were of the view that it might be able to be handled with one petition, although your informal opinion was that such a process would probably take a minimum of one year to be completed.

You also expressed your concern that in the event the modification procedure was successful, and the Permit was divided into two parts, the portion of the Permit relating to the EGF being issued to RRD and the remaining portion being issued to the County, additional problems would still exist. Specifically, since the Solid Waste Processing Facility does not contain an electric generator, that portion of the Permit which would relate to the Solid Waste Processing Facility would not be an Electric Power Plant Siting Act Permit. Since the original issuance of the Electric Power Plant Siting Act Permit for the Facility negated any necessity on the part of the County to obtain the numerous other permits which would otherwise have been required to be issued to the Facility, and since the modification of the Permit would provide that only the EGF portion of the Facility would retain a Power Plant Siting Act Permit, it would be necessary for the County to obtain the numerous other permits required by various state and local agencies before it would be allowed to continue to operate the Solid Waste Processing Facility.

As to the automatic retransfer provision provided by the stipulation, you suggested that it may be possible to request that the original Permit be modified to provide for this automatic retransfer in the same petition that requests that the Permit be severed. You cautioned, however, that such a modifica-

tion of the Permit would, once again, require a formal petition to the DER and potentially a full administrative hearing before such a provision could be added to the Permit. You also stated that even with DER approval, a modification of the Permit to provide for an automatic retransfer must also be approved by the eight other applicable state agencies, the governor and cabinet. You of course reminded me that DER had yet to make any determination as to whether or not it would approve such an effort at revising the requirement of the statute that any transfer of a Power Plant Siting Act Permit be approved pursuant to the statutory and regulatory requirements immediately prior to its transfer.

Now that you have a copy of the stipulation, I would appreciate you reviewing it and giving me any additional thoughts you may have on the subject of the feasibility of using such a document to attempt to effectuate a transfer of a portion of the County's Permit to RRD. I would also hope that you would let me know if any of the above information regarding DER's position in this regard is not accurate. I look forward to hearing from you soon in reference to this matter and hope that we can work together in resolving it to the satisfaction of all the interested parties.

Sincerely

Hilarie Bass

State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

INTEROFFICE MEMORANDUM

For Routing To District Offices And/Or To Other Than The Addressee		
To:	Loctn.:	
To:	Loctn.:	
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From:	Date:	
Reply Optional [ ]	Reply Required [ ]	Info. Only [ ]
Date Due:	Date Due:	

TO: Jim Williams/Roy Duke

THROUGH: Steve Fox

FROM: Hamilton S. Oven, Jr., HSO Power Plant Siting Section and Alfred J. Malefatto, Office of General Counsel AJM

SUBJECT: Dade County Resource Recovery Power Plant Site Certification

DATE: July 15, 1983

In response to your memo of June 7, 1983, concerning the Dade County Resource Recovery Facility, I am providing the following opinions:

1. You should not process or issue operating permits for the resource recovery facility. Site certification supersedes 17-4 permits.

2. The Bureau of Air Quality Management has been asked to send you a copy of the EPA-PSD permit.

3. We do not have full delegation of PSD from EPA. We have a partial "permitting" delegation. You should not enforce EPA's PSD permit. You should enforce the Conditions of Certification and requirements of Chapter 17-2, FAC.

4. Modification to the facility should be reflected by amendments to the power plant siting application and corresponding modifications to the Conditions of Certification. In addition, Condition No. 1 of the Certification requires the permittee to amend its application if additional pollutants, or pollutants in excess of what was originally revealed, are emitted. If permittee has not properly amended its application, it could be in violation. Refer to the appropriate condition.

5. The Power Plant Siting Section does not conduct compliance assurance. Compliance enforcement, inspections, etc.

should be carried out by the District staff. The PPS section would like to receive copies of field correspondence on the facility. Reports from the facility are not received in Tallahassee. The Groundwater Section may wish to see the groundwater reports.

6. The applicable groundwater reports received from the Dade County facility should be shared with the Water Management District. Any proposed changes in conditions of certification should be coordinated with the Water Management District by either Tallahassee or the DER District Office.

7. With respect to boiler rating and fuel input, your suggestion as to a modified condition of certification is welcome.

8. Special Condition I. requires compliance with Chapters 17-2 and 17-7, FAC. Subsection 403.511(5)(a) requires compliance with rules of the Department adopted subsequent to the issuance of certification. Therefore, the new testing requirements of Chapter 17-2, 17-3 or 17-7 are applicable.

9. Any suggestions for updating and modifying the current conditions of certification are welcome. The PPS Section is available to coordinate the necessary revisions.

Al Malefatto has already reviewed these matters with Jim Williams and his staff. If modifications to the certification are necessary, we should meet with DERM and the Water Management District to discuss what should be modified and how to go about accomplishing it. Al Malefatto has discussed this matter with the responsible Dade County attorney who has indicated the County would agree to modifications. Since the County (through DERM) is the permittee, modifications should not prove too difficult. We recommend scheduling the meeting August 9 or 10, if possible, in West Palm Beach.

HSO/AJM/tb

cc: John Bottcher

State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

INTEROFFICE MEMORANDUM

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And/Or To Other Than The Addressee

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To: _____ Loctn.: _____
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Date Due: _____ Date Rec'd _____

RECEIVED
JUN 10 1983
DIVISION OF
ENVIRONMENTAL PERMITTING

TO: Steve Fox

FROM: Jim Williams/Roy Duke

DATE: June 7, 1983

SUBJECT: Power Plant Site Certification (Dade County)

We are in the process of completing the review of an application for an operation permit on the Dade County Resource Recovery Facility. The operating corporation for this facility, because of time constraints, applied for and received air and solid waste construction permits in August and June 1977 respectively. Concurrently the owner, Dade County, applied for and received a Power Plant Site Certification (PPSC) on January 9, 1978. EPA issued a PSD permit with a BACT determination in March 1978 (revised May 1980). Since that time the Department has received PSD delegation. We have run into several problems in our review of this system as follows:

1. Are we allowed to process an operation permit, as called for in the construction permits, now that a PPSC has been issued and considering Section 403.511 Florida Statutes?
2. We have not received a copy of EPA's PSD permit which we should address if we have PSD delegation.
3. Should we be enforcing EPA's PSD permit and what mechanism should be used if the answer to question #1 is "No?"
4. Do modifications affecting pollution from the facility which do not include any additional generation capacity require a permit, modification to the site certification or other approval of the Department? If not what mechanism should be used to control these modifications?
5. Does the Tallahassee Power Plant Siting section conduct any compliance assurance on the certifications issued or is this expected to be done totally by the appropriate field office? Does that section receive or want to receive any of the reports from the facility or field correspondence on the facility?
6. How will coordination with the Water Management Districts be conducted on those PPSCs (i.e. recource recovery operations) with an associated Class I or II landfill?

7. The Dade County Resource Recovery certification specifies a maximum rating of 156,000 pounds per hour of fuel to each boiler. The system has no means of measuring fuel input to each boiler. Further the moisture content of the fuel is not specified which is extremly important when the fuel is approximately 50% water. As moisture content goes up the fuel feed rate increases and boiler output decreases. The boiler rating, if necessary, should be specified as dry weight fuel or preferably steam output. We know of no way to correct this problem without PPSC modification or expensive plant modifications.
8. Other PPSC problems for the Dade site include an old reference for testing of particulate matter and it does not include other testing required.

At the present time the site and the facility are owned by Dade County and operated under long term lease (20 years) by Resource Recovery (Dade County), Inc. The Power Plant Site Certification is over 5 years old and needs to be brought up to date because of the numerous rule changes in that period. A mechanism for reviewing the certification needs to be set up along with a schedule for such.

Because of the numerous problems we are having in sorting out the various permits, certifications, etc. we feel a formal policy should be developed for handling PPSC under an operating mode. With regard to this specific facility we recommend no operation permit be issued by reason of 403.511 F.S. We have initial discussion had of this with Al Malefatto and he concurs. We feel a written confirmation of this is needed. Also any permits, notices, etc. issued to the facility should be sent to the owner a copy to the operator.

Your early responses to the above questions and comments would be appreciated as we have a potential default date of July 18, 1983 on their application.

Attached are 2 memos we received on this facility which may be useful in finalizing Department policy. We also recommend the Department pursue a statute revision to have power plant site certification only apply to construction and require 5 year operation permits thereafter.

JW:RD:bj/6

Enclosure
cc: Steve Smallwood
Al Malefatto
Suzanne Walker

ts of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

INTEROFFICE MEMORANDUM

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To: _____ Loctn.: _____
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To: _____ Loctn.: _____
From: _____ Date: _____

Reply Optional [ ] Reply Required [ ] Info. Only [ ]
Date Due: _____ Date Due: _____

TO: Steve Burian

FROM: Hamilton S. Oven, Jr. HSO

DATE: February 24, 1983

SUBJECT: Dade County Resource Recovery Facility

Attached per your request are copies of the Certification Order, the Conditions of Certification and a copy of a portion of the application for the Dade County Resource Recovery Facility. Dade County applied for the power plant site certification. Resource Recovery (Dade County), Inc. applied for other related permits which were superceded by site certification. The Hearing Officer recognized that Resource Recovery (Dade County), Inc. would operate the facility. However, the Hearing Officer's recommended order was "that certification pursuant to Chapter 403, Florida Statutes, be granted to Dade County for the construction and operation of the proposed resource recovery facility". The order, signed by Governor Askew on behalf of the Florida Cabinet, adopted the Hearing Officer's recommended order. In my opinion, Dade County is the permittee and Resource Recovery (Dade County, Inc. may operate the facility.

cc: Mary Clark
Al Malefatto

RECEIVED
FEB 28 1983
Dept. of Environmental Reg.
West Palm Beach

[illegible] as the special and general conditions referred

MENT OF ENVIRONMENTAL REGULATION

INTEROFFICE MEMORANDUM

Time:
To:
From: Date:

TO: Roy Duke
Jim Williams
Steve Conn

FROM: Tom Maurer TKM

DATE: February 17, 1982

SUBJECT: Dade County Power Plant Certification

On January 9, 1978, Dade County was issued a power plant certification to construct and operate a 3,000 ton per day resource recovery facility. The facility was to be owned by Dade County and operated by Resources Recovery (Dade County), Inc.

Resources Recovery has applied for an operation permit under Florida Administrative Code Chapter 17-7. A question has been raised as to the necessity of such a permit since a power plant certification has been raised.

Section 403.511(2), Florida Satutes, provides "(T)he certification shall authorize the electric utility named therein to construct and operate the proposed electric power plant, ..." (Emphasis supplied.) Therefore, a power plant certification relieves the party to which it is issued from any obligation to obtain additional permits. Any other party must still obtain all applicable Department permits.

Since this power plant certification was issued to Dade County, and Dade County has not assumed ownership of the facility, Resources Recovery (Dade County), Inc. must obtain an operation permit. This permit should contain conditions at least as stringent as the conditions to the power plant certification.

TKM:gmg

RECEIVED
FEB 18 1982
Dept. of Environmental Reg.
West Palm Beach

HS - Rev 7/78

Dade Co

State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

INTEROFFICE MEMORANDUM

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RECEIVED
JAN 26 1982
Dept. of Environmental Regulation
Office of General Counsel

TO: Mary Clark Office of General Counsel

FROM: Roy Duke/Jim Williams/Steve Conn

RD JW SC

DATE: January 22, 1982

SUBJECT: Power Plant Site Certification

Resources Recovery (Dade County) Inc. was issued a power plant site certification in 1977 to construct and operate a 3,000 ton/day resource recovery facility. Prior to the issuance of the certification, solid waste and air pollution construction permits for the facility were issued in June 1977 and August 1977.

We have now received an application from Resources Recovery (Dade County), Inc. to operate the facility under Chapter 17-7, F.A.C., (Solid Waste Rules). Resources Recovery (Dade County), Inc. claims that under Section 403.511, F.S., there is a possibility that no Department operation permit is necessary for facilities that have received a power plant site certification. Therefore, we request a legal opinion on the following:

> Are facilities, that have been issued a power plant site certification, required to apply for any Department operating permit(s)?

Your prompt attention to this question would be greatly appreciated.

Enclosure

RD/JW/sch

RECEIVED
FEB 12 1982
DIV ENVIRONMENTAL PERMITTING

energy

RESOURCES
RECOVERY
(DADE COUNTY)
CONSTRUCTION
CORP.

December 22, 1981

GEB - 81 - 215

Mr. James C. Williams
Section Head Industrial/Solid/Air
Department of Environmental Regulation
South Florida Subdistrict
3301 Gun Club Road
P.O. Box 3858
West Palm Beach, Florida 33402

Re: SO - Dade County Resources Recovery, Inc.
File Number SO-12-49315

Dear Mr. Williams:

This will acknowledge receipt of your letter of December 3rd directed to Mr. Martinez. You request certain information which we are pleased to enclose as follows:

1. Resources Recovery respectfully requests that, as it reads the applicable statutes and regulation, a performance bond is not required for the resource recovery facility. Section 403.511 of the Electric Power Plant Siting Act supersedes the need for any other state permits to operate an electric power plant and "associated facilities." The resource recovery facility is an "associated facility" for purpose of the Siting Act. DER recognized the resource recovery facility to be an "associated facility" in the permit issued to Resources Recovery under the Siting Act, since the permit states certain requisites for the disposal of solid waste from operation of the facility. While the Siting Act permit stated that such disposal must satisfy the "applicable" regulations of Chapter 17-7 of the Florida Administrative Code, we do not believe that the bond required in section 17-7.03 is such an "applicable" regulation. Section 17-7.03 is merely a procedural requirement that is superseded by the permit issued under the Electric Power Plant Siting Act.

As a condition of its Siting Act permit, Resources Recovery recognizes that it is required to comply with applicable substantive regulations of Section 17-7, such as sanitary landfill criteria in Section 17-7.05 and the closing procedure in Section 17-7.07. Resources Recovery has submitted the Application For Permit To Operate A Solid Waste Recovery Facility in recognition of its substantive environmental obligations and to verify compliance therewith.

P.O. BOX 524056
MIAMI, FLORIDA 33152
PHONE: (305) 593-7000

Resources Recovery also believes that it would not be appropriate at this time for Metropolitan Dade County to set the amount of bond required by Section 17-7.03. Resources Recovery and Dade County currently are engaged in an arbitration proceeding regarding the County's refusal to pay for construction of the resource facility.

2. Dade County has contracted to take the ash residue from this plant per attached contract. This material will be utilized for landfill cover at their South Dade landfill facility. The subject material is odor free. Attached is a chemical analysis of same. The inert residual ash is a combination of front travelling stoker ash as well as fly ash removed from the mechanical cyclones and precipitators. The front ash is dropped from the moving stoker into a water submerged drag conveyor system. The fly ash from the rear boiler hoppers as well as from the mechanical cyclones and precipitators is also conveyed by enclosed drag conveyors to a collection conveyor which also transports the front ash. All of the material is moist as it is transported to either one of two three day storage silos. Since the material is in a wet condition it will set up as an impervious cement like material. In fact, we had to install vibra bins on the lower conical bottoms of the ash silos to enable removal of the material. Prior to its discharge it goes through a conditioning screw where additional water can be added if required. If left standing for any period of time, this material can set up as a concrete like material. This ash has frequently been used in the manufacture of structural blocks - such blocks were made in our other facility. It is our understanding that the County will employ approximately two foot of material cover. Due to the nature of material, as it dries it will form an impermable barrier thus providing excellent odor control as well as very low permability and would completely inhibit rats and mice. In short, based on analysis and work with the ash residue it should have excellent characteristics for landfill cover.

3. The 30 mil PVC liner was selected by our soil's engineering consultant, Mr. Larry M. Jacobs and Associates, Inc., P.E. Florida Registered License #19690, (see attached report). It should be noted that some eight different alternates were under consideration. Please also note the specifications from the Water Saver Company, Inc. on the PVC plastic liner as well as some of the applications where it has been utilized. Use of the word "nylon liner" as stated on page 14 of the application was a mistake as it should have been "PVC liner". It is noted that on the original landfill permit, no liner was required.

4. There are a total of six independent processing lines in this plant including four lines in the Hydrasposal system and two independent shredder lines. It is highly unlikely that more than two of these lines would be down at any given time. The shredder lines alone have a capability close to the incoming rate of delivery. Plant residue at design capacity is about 10% by weight of the incoming solid waste. However, the greatest amount of this residue namely the ash from the boilers would be delivered to the South Dade Landfill or utilized for other purposes (i.e. structural blocks).

Cell capacity will always be well ahead of requirements. It will require only approximately two weeks to construct a proper one acre cell.

5. The leachate ponds are primarily utilized in the water recirculation systems for the front boiler ash. The front submerged ash hoppers overflow to the leachate ponds. The leachate ponds provide settingly time and storage for whatever entrained ash is carried out. Free of ash water from the southern end of the ponds is recycled to the front ash system. There is a net requirement of water on the ash system at all times since the ash itself is moist as it leaves the plant. Also since the incoming solid waste has a moisture content of approximately 25% and leaves the Hydrasposal system at about 50%, there is always a net input of water. Since there is a net input of water and virtually constant circulation and makeup on the ponds, there should be no problem with overflow or odor.

6. This plant has been designed with great emphasis on housekeeping. A careful inspection will reveal that all floors have been very carefully pitched and wash up hose stations provided through out. Fourteen floor sumps with automatic pump control have been provided to transfer wash up to either the tile emergency dump tank or main dump tank, each 43' dia. x 27' high with 290,000 gallons capacity. The plant follows Factory Mutual (insurers Engineers) and Dade County Building and Zoning requirements as to the inclusion of sprinklers over the receiving pit, machine shop, fuel storage, the shredder area, and the cooling tower. Plant has an organized active fire brigade, (enclosed fire brigade instructions). There is a complete fire ring main with suitable hydrants surrounding this entire site. Hose stations and extinguishers are distributed throughout the facility. Diesel fire pumps as well as jockey pumps with pressure control have been provided separately for the cooling tower as well as for the process area. Automatic alarms and controls have been provided through out the fire system.

7. It would appear that you may not have the most recent drawing #04-3008-R6 (enclosed). Apparently the drawing you have shows the original design with a perforated pipe inside the berms. This was changed due to potential damage to the pipe inside the berms. You will note on the present drawing that there are drainage pipes on the inside going through the berm and connecting to the exterior twelve inch galvanized corrugated drainage pipe which is not perforated. There is no possibility or seepage from this pipe prior to reaching the leachate collection pond. In a subsequent meeting with Dean Kohlhepp, Larry Jacobs, our soils engineer as well as Ferendino, Grafton, Spillis, engineer - architects for the project; it was concluded by all those present that galvanized corrugated drainage pipe would be more than adequate for the service.

8. For overall general building arrangement by departments, see enclosed drawing #04-3009-R20. In this same drawing we have circled the wells identified as #1, #2, and #2 which are located generally in the northwest section of the general site arrangement just to the north of the boiler stacks. This well water is for process usage only.

(1) For landfill run off control/drainage, please observe drawings #04-3008-R6 and #04-3006-R6. There should provide you with full particulars on the run off control as well as drainage.

(2) The piping system for the leachate collection system is contained on the same drawings as #1.

(3) The water supply wells are referred to above.

(4) Other general information on the layout should be contained on the referenced drawings #04-3009-R20 and #04-1002-R3. These indicate the location of all process facilities as well as surface drainage. Roadway systems are as indicated.

Very truly yours,

George E. Boyhan
Executive Vice President

GEB/cc

Enclosures

P.S. We are enclosing updated drawing copies of those referred to in the letter of October 3, 1980.