

Appendix H-1, Permit History/ID Number Changes

City of Tampa
McKay Bay Refuse-To-Energy

DRAFT Permit No.: 0570127-002-AV
Facility ID No.: 0570127

Permit History (for tracking purposes):

E.U. ID No	Description	Permit No.	Issue Date	Expiration Date	Extended Date ^{1,2}	Revised Date(s)
-001	MSW Incinerator #1	PSD-FL-086	7/2/82			
		AC29-47277	4/23/82	12/31/84		5/20/83, 11/7/86
		AO29-206279	9/1/92	8/1/97		
-002	MSW Incinerator #2	PSD-FL-086	7/2/82			
		AC29-47277	4/23/82	12/31/84		5/20/83, 11/7/86
		AO29-206279	9/1/92	8/1/97		
-003	MSW Incinerator #3	PSD-FL-086	7/2/82			
		AC29-47277	4/23/82	12/31/84		5/20/83, 11/7/86
		AO29-206279	9/1/92	8/1/97		
-004	MSW Incinerator #4	PSD-FL-086	7/2/82			
		AC29-47277	4/23/82	12/31/84		5/20/83, 11/7/86
		AO29-206279	9/1/92	8/1/97		
-005	Fly Ash Silo	PSD-FL-086(A)	4/1/98	3/31/2003		
-100	Ash Building & Handling System	PSD-FL-086(A)	4/1/98	3/31/2003		
-101	Lime Storage Silo	PSD-FL-086(A)	4/1/98	3/31/2003		
-102	Activated Carbon Storage Silo	PSD-FL-086(A)	4/1/98	3/31/2003		
-103	MSW Combustor & Auxiliary Burner – Unit 1	PSD-FL-086(A)	4/1/98	3/31/2003		
-104	MSW Combustor & Auxiliary Burner – Unit 2	PSD-FL-086(A)	4/1/98	3/31/2003		
-105	MSW Combustor & Auxiliary Burner – Unit 3	PSD-FL-086(A)	4/1/98	3/31/2003		
-106	MSW Combustor & Auxiliary Burner – Unit 4	PSD-FL-086(A)	4/1/98	3/31/2003		

(if applicable) ID Number Changes (for tracking purposes):

From: **Facility ID No.:**

To: **Facility ID No.:** 0570127

Notes:

1 - AO permit(s) automatic extension(s) in Rule 62-210.300(2)(a)3.a., F.A.C., effective 03/21/96.

2 - AC permit(s) automatic extension(s) in Rule 62-213.420(1)(a)4., F.A.C., effective 03/20/96.

{Rule 62-213.420(1)(b)2., F.A.C., allows Title V Sources to operate under existing valid permits that were in effect at the time of application until the Title V permit becomes effective}

Fold at line over top of envelope to

Is your RETURN ADDRESS completed on the reverse side?

SENDER:
 ■ Complete items 1 and/or 2 for additional services.
 ■ Complete items 3, 4a, and 4b.
 ■ Print your name and address on the reverse of this form so that we can return this card to you.
 ■ Attach this form to the front of the mailpiece, or on the back if space does not permit.
 ■ Write "Return Receipt Requested" on the mailpiece below the article number.
 ■ The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):
 1. Addressee's Address
 2. Restricted Delivery
 Consult postmaster for fee.

3. Article Addressed to:
 Mr. Dick Greco, Mayor
 City of Tampa
 306 E. Jackson St.
 Tampa, FL 33602

4a. Article Number
 P 265 659 330

4b. Service Type
 Registered Certified
 Express Mail Insured
 Return Receipt for Merchandise COD

7. Date of Delivery
 APR 14 1994

5. Received By: (Print Name)

8. Addressee's Address (Only if requested and fee is paid)

6. Signature: (Addressee or Agent)
 X

Thank you for using Return Receipt Service.

PS Form 3811, December 1994

Domestic Return Receipt

P 265 659 330

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

Sent to		Dick Greco
Street & Number		City of Tampa
Post Office, State, & ZIP Code		Tampa FL
Postage	\$	
Certified Fee		
Special Delivery Fee		
Restricted Delivery Fee		
Return Receipt Showing to Whom & Date Delivered		
Return Receipt Showing to Whom, Date, & Addressee's Address		
TOTAL Postage & Fees	\$	
Postmark or Date	49-98	
Notice of Post Correction 0570127-002-AC		

PS Form 3800, April 1995



Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

NOTICE OF PERMIT CORRECTION

In the Matter of an
Application for Permit

Mr. Dick Greco, Mayor
City of Tampa
306 E. Jackson Street
Tampa, Florida 33602

DEP File No. 0570127-002-AC
PSD-FL-086(A)

The Department has determined that several minor corrections to information contained in Final Permit Number 0570127-002-AC/PSD-FL-086(A) are required. These corrections are related to typographical errors, minor omissions, or result from the emissions unit number assignments of the Department's data management system. These corrections are minor in nature and do not alter, modify or revise any permit requirement. The corrections are:

The rule citations for condition B.8 of Section III (page 13 of 30) should read: [Rules 62-4.030 and 62-296.416, F.A.C., 40 CFR 60.33b and 40 CFR 60.34b, and request of applicant]

Condition B.11 of Section III (page 17 of 30) should include the following clarifying sentence at the end of the condition, and its citation should read: ...Test reports shall include the information required by 40 CFR 60.59b(f). [Rules 62-4.070(3), 62-297.310 and 62-204.800(8), F.A.C.; 40 CFR 60.38b, 40 CFR 60.58b and 40 CFR 60.59b]

The rule citations for condition B.19 of Section III (page 19 of 30) should read: [Rules 62-4.070(3) and 62-4.160(14)(b), F.A.C., 40 CFR 60.59b and 40 CFR 60.44b(d)]

The rule citations for condition B.22 of Section III (page 22 of 30) should read: [Rule 62-210.370(3), F.A.C. and 40 CFR 60.59b(g) and, if applicable, 40 CFR 60.59b(h)]

The rule citations for condition B.25 of Section III (page 23 of 30) should read: [40 CFR 60.49b(a)(1) & (3) and 40 CFR 60.59b(b)]

The emissions unit identification numbers have been changed from those specified in the permit because of the requirements of the Department's data management system. The emissions unit numbers referred to on pages 7, 8, 25 and 27 (of 30) have been changed as follows:

ORIGINAL EMISSIONS UNIT No.	NEW EMISSIONS UNIT No.	EMISSIONS UNITS DESCRIPTION
001	103	120 mmBtu/hr (maximum) Municipal Waste Combustor & Auxiliary Burners - Unit No. 1
002	104	120 mmBtu/hr (maximum) Municipal Waste Combustor & Auxiliary Burners - Unit No. 2
003	105	120 mmBtu/hr (maximum) Municipal Waste Combustor & Auxiliary Burners - Unit No. 3
004	106	120 mmBtu/hr (maximum) Municipal Waste Combustor & Auxiliary Burners - Unit No. 4
006	100	Ash Building and Handling System
007	101	Lime Silo
008	102	Carbon Silo

Please refer to the new numbers when making records or when corresponding with the Department.

This permit correction corrects and is a part of Final Permit Number 0570127-002-AC/PSD-FL-086(A). This permit correction is issued pursuant to Chapter 403, Florida Statutes.

"Protect, Conserve and Manage Florida's Environment and Natural Resources".

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

Executed in Tallahassee, Florida.



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

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF PERMIT CORRECTION (including the FINAL permit) was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 4-9-98 to the person(s) listed:

Dick Greco, Mayor, City of Tampa *
Daniel Kleman, Hillsborough County Administrator
Brian Beals, EPA
John Bunyak, NPS
Douglas W. Fredericks, P.E., CDM
Don Elias, RTP
David S. Dee, Landers & Parsons
Jerry Campbell, HCEPC
Bill Thomas, DEP SWD

Clerk Stamp

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

Keri Joben
(Clerk)

4-9-98
(Date)

is your RETURN ADDRESS completed on the reverse side?

SENDER: ■ Complete items 1 and/or 2 for additional services. ■ Complete items 3, 4a, and 4b. ■ Print your name and address on the reverse of this form so that we can return this card to you. ■ Attach this form to the front of the mailpiece, or on the back if space does not permit. ■ Write "Return Receipt Requested" on the mailpiece below the article number. ■ The Return Receipt will show to whom the article was delivered and the date delivered.		I also wish to receive the following services (for an extra fee): 1. <input type="checkbox"/> Addressee's Address 2. <input type="checkbox"/> Restricted Delivery Consult postmaster for fee.
3. Article Addressed to: Mr. Dick Greco, Mayor City of Tampa 306 E. Jackson St. Tampa, FL 33602	4a. Article Number P 265 659 324	4b. Service Type <input type="checkbox"/> Registered <input checked="" type="checkbox"/> Certified <input type="checkbox"/> Express Mail <input type="checkbox"/> Insured <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> COD
5. Received By: (Print Name) [Signature]	7. Date of Delivery [Signature]	
6. Signature: (Addressee or Agent) X [Signature]	8. Addressee's Address (Only if requested and fee is paid)	

PS Form 3811, December 1994 Domestic Return Receipt

Thank you for using Return Receipt Service.

P 265 659 324

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

Sent to		DICK GRECO
Street & Number		CITY OF TAMPA
Post Office, State, & ZIP Code		TAMPA FL
Postage	\$	
Certified Fee		
Special Delivery Fee		
Restricted Delivery Fee		
Return Receipt Showing to Whom & Date Delivered		
Return Receipt Showing to Whom, Date, & Addressee's Address		
TOTAL Postage & Fees	\$	
Postmark or Date	0570127-CE2 AC 4-1-98 PSD-FI-086(A)	

PS Form 3800, April 1995

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
NOTICE OF FINAL PERMIT

In the Matter of an
Application for Permit

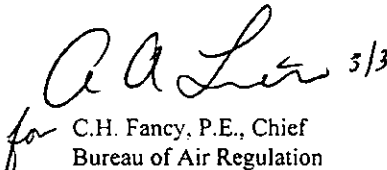
Mr. Dick Greco, Mayor
City of Tampa
306 E. Jackson Street
Tampa, Florida 33602

DEP File No. 0570127-002-AC
PSD-FL-086(A)

Enclosed is the FINAL Permit Number 0570127-002-AC/PSD-FL-086(A). This construction permit is to: replace and improve the air pollution control system; add natural gas auxiliary burners for improved combustion control; define process throughput parameters; increase amount of waste that can be burned on a short-term basis, and specify which materials can be burned at its solid waste energy recovery facility located at 107 North 34th Street, Tampa, Hillsborough County, Florida. A review for the Prevention of Significant Deterioration (PSD) and Best Available Control Technology determination were not required pursuant to Rule 62-212.400. and 410., F.A.C., as potential emissions will not significantly increase as a result of this project. This permit is issued pursuant to Chapter 403, Florida Statutes.

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

Executed in Tallahassee, Florida.

 3/31
for C.H. Fancy, P.E., Chief
Bureau of Air Regulation

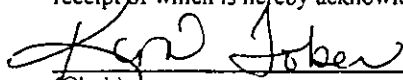
CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF FINAL PERMIT (including the FINAL permit) was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 4-1-98 to the person(s) listed:

Dick Greco, Mayor, City of Tampa *
Daniel Kleman, Hillsborough County Administrator
Brian Beals, EPA
John Bunyak, NPS
Douglas W. Fredericks, P.E., CDM
Don Elias, RTP
David S. Dee, Landers & Parsons
Jerry Campbell, HCEPC
Bill Thomas, DEP SWD

Clerk Stamp

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


(Clerk) 4-1-98
(Date)

FINAL DETERMINATION

City of Tampa
McKay Bay Refuse-to-Energy Facility
Tampa, Florida
Hillsborough County

Air Construction Permit No. 0570127-002-AC
PSD-FL-086(A)

An Intent to Issue an air construction permit for City of Tampa, McKay Bay Refuse-to-Energy Facility located at 107 North 34th Street, Tampa, Hillsborough County, Florida was distributed on February 5, 1998. The Public Notice of Intent to Issue Air Construction Permit was published in The Tampa Tribune on February 18, 1998. Comments were submitted in response to the public notice.

Comments were received by telephone from the City's Attorney, David Dee of Landers and Parsons, and the City's Consultants, Dan Strobridge of CDM and Don Elias of RTP Environmental Associates Inc., primarily related to identifying typographical errors or minor points of clarification. These changes were all made in the final permit. Written comments were received from Dan Strobridge of CDM related to revising limitations expressed in terms of pounds per hour and pounds per million Btu for the pollutants mercury, hydrochloric acid and sulfur dioxide; revising the steam production calculation, which was originally calculated by another of the City's consultants using the wrong fuel heating value basis; and deleting reference to dry activated carbon so that a slurry may be used. These changes were made.

Several details of the Technical Evaluation and Preliminary Determination require revision, primarily to correct typographical errors or for clarification. The first paragraph on page 6 of 17 refers to Pasco County's facility, but should have referred to Pinellas County. The definition of allowable wastes discussed starting on page 6 did not exactly match the language of the permit; the permit language was also slightly revised for clarity, so the permit properly reflects the Department's intent with respect to the definition of allowable wastes for this facility. The fourth paragraph of the Process Description on page 9 should have referred to combustion air drawn into "... the refuse-fired combustors where the waste is burned." The table of proposed limits in section 6.1 on page 12 has been revised to delete references to the "not to exceed" values for sulfur dioxide, mercury and hydrogen chloride. Hydrogen chloride in this table should have been listed as hydrochloric acid to match the permit. The revised table now appears:

POLLUTANT	PERMITTED LIMIT	PROPOSED LIMIT
Particulate Matter (PM)	0.025 gr/dscf @ 12% CO ₂ and 27.9 lb/hr (all four units combined)	0.012 gr/dscf @ 7% O ₂
Sulfur Dioxide (SO ₂)	170.0 lb/hr (all four units combined)	29 ppmdv @ 7% O ₂ or 75% removal (24-hr)
Nitrogen Oxides (NO _x)	300.0 lb/hr (all four units combined)	205 ppmdv @ 7% O ₂ (24-hr)
Carbon Monoxide (CO)	None	100 ppmdv @ 7% O ₂ (4-hr)
Volatile Organic Compounds (VOC)	9.0 lb/hr (all four units combined)	none - CO is surrogate
Lead (Pb)	3.1 lb/hr (all four units combined)	440 ug/dscm @ 7% O ₂

(Table continued next page.)

POLLUTANT	PERMITTED LIMIT	PROPOSED LIMIT
Mercury (Hg)	0.6 lb/hr (all four units combined)	70 ug/dscm @ 7% O ₂ or 85% removal
Cadmium (Cd)	None	40 ug/dscm @ 7% O ₂
Beryllium (Be)	0.00046 lb/hr (all four units combined)	0.000115 lb/hr
Hydrochloric Acid (HCl)	None	29 ppmv @ 7% O ₂ or 95% removal
Hydrogen Fluoride (HF)	6.0 lb/hr (all four units combined)	1.5 lb/hr
Dioxins/Furans	None	30 ng/dscm @ 7% O ₂

The Control Technology Assessment starting on page 13 erroneously refers to the capacity of the Pasco County facility as 900 TPD, although the facility is actually rated at 1050 TPD. Thus, the projected future actual emissions for PM and fluoride are improperly stated. Adjusting for the error, the equivalent emissions of PM from the McKay Bay facility would be less than 3 TPY, leading to a future actual decrease in emissions of PM of more than 33 TPY; annual estimated emissions of HF are 0.8 TPY. The first paragraph of section 7.2 refers to the technology for control of acid gases as a specific requirement of the emission guideline; it should have stated that the technology was used as the basis for the emission limits of the emission guideline. The last sentence of section 7.4 should read, "The SNCR system will reduce NOx actual emissions substantially from the current uncontrolled levels." Section 7.5 refers to injecting dry activated carbon for mercury control, although it was not the Department's intention to prohibit the use of slurry activated carbon. The reference to the absolute limit of 135 ug/dscm is no longer applicable, because that limit has been removed from the permit.

The RACT evaluation of section 8 refers to dust generation from the ash handling facility, and states that all portions of the facility with potential for fugitive emissions will be enclosed. In actuality, many portions of the facility with substantial potential for fugitive emissions will be enclosed.

The City's Consultants, Dan Strobridge of CDM and Don Elias of RTP Environmental Associates Inc. verbally requested the permit specify that PM testing using EPA Method 5 utilize the front-half catch of the sampling train. The Department considered this request and determined that this change was not required. The Department agrees that EPA Method 5 is a front-half catch method, and measurement of particulate matter captured in the back half is not required for this source, because the emissions limited pollutant is particulate matter as defined in 40 CFR 60.51b which refers specifically to EPA Reference Method 5. To further clarify that the emissions limited pollutant is particulate matter, specific condition B.8 has been changed to refer only to PM, not PM10, and the requirements for particulate matter testing from 40 CFR 60.58b(c)(3) have been added to specific condition B.10.

The final action of the Department will be to issue the permit with the changes noted above.

/jk



Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

PERMITTEE:

City of Tampa
McKay Bay Refuse-to-Energy Facility
306 East Jackson
Tampa, Florida 33602

ID No.	0570127
Permit No.	0570127-002-AC
PSD No.	PSD-FL-086(A)
SIC No.	4953
Expires:	March 31, 2003

Authorized Representative:
Mr. Dick Greco
Mayor

PROJECT AND LOCATION:

This permit allows the applicant to substantially replace or rebuild the existing municipal waste combustion facility. This retrofit project will upgrade the existing four mass-burn combustion units to achieve greater combustion control and improve combustion efficiency, as well as replace air pollution control equipment, to comply with the emission limits and monitoring requirements of the Federal emission guidelines for large municipal waste combustors, 40 CFR 60 Subpart Cb. Each municipal waste combustion unit will not exceed a short-term tonnage capacity of 288 TPD and maximum heat input of 120 million Btu per hour (mmBtu/hr), 104 mmBtu/hr, nominal. These capacities are not limited by this permit. This permit limits each unit's maximum steam flow to 79,300 pounds per hour, and limits long-term (nominal) capacity to 250 TPD, rolling 12-month average.

The facility is located at 107 North 34th Street, Tampa, Hillsborough County. The UTM coordinates of this facility are Zone 17 ; 360.0 km E ; 3091.9 km N.

STATEMENT OF BASIS:

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

Attached appendix is part of this permit:

Appendix GC Construction Permit General Conditions

Howard L. Rhodes, Director
Division of Air Resources
Management

SECTION I. FACILITY INFORMATION

SUBSECTION A. FACILITY DESCRIPTION

This existing facility consists of four mass-burn combustion units, each with a nominal capacity to combust 250 tons per day (TPD) when burning solid waste with a heat content of 5,000 British thermal units (BTU) per pound (lb). Therefore, the facility has a nameplate (nominal) waste processing rate of 1,000 TPD (5,000 Btu/lb). The heat input to each unit is 104 mmBtu/hr nominal. The facility generates electricity, and has an electrical generator with a nameplate rating of 22.5 megawatts for the entire facility. Each upgraded air pollution system will consist of a spray dryer absorber (SDA), fabric filter baghouse (FF), activated carbon injection (ACI) unit, and a selective non-catalytic reduction (SNCR) system.

This permit allows the applicant to substantially replace or rebuild the existing municipal waste combustion facility. This retrofit project will upgrade the existing four mass-burn combustion units to achieve greater combustion control and improve combustion efficiency, as well as replace air pollution control equipment, to comply with the emission limits and monitoring requirements of the Federal emission guidelines for large municipal waste combustors, 40 CFR 60 Subpart Cb. Each municipal waste combustion unit will not exceed a short-term tonnage capacity of 288 TPD and maximum heat input of 120 million Btu per hour (mmBtu/hr), 104 mmBtu/hr, nominal. These capacities are not limited by this permit. This permit limits each unit's maximum steam flow to 79,300 pounds per hour, and limits long-term (nominal) capacity to 250 TPD, rolling 12-month average.

A general description of this project is as follows: The existing grate furnaces, rotary kilns, electrostatic precipitators and ID fans will be replaced. New boiler systems will be installed to recover heat from the waste combustion. The boiler tubes may be integral to the furnace design (waterwall furnace) or may be constructed to recover heat by convective heat transfer (as with a refractory furnace with waste heat boiler). The existing waste heat boilers may be reused in the new boiler systems. The new air pollution control equipment for each line consists of a spray dryer absorber, a fabric filter, and activated carbon injection system. A selective non-catalytic reduction system (SNCR) and auxiliary gas burners will be installed in the furnaces. The two existing 165-foot stacks will be replaced with a single, multi-flued stack, 201 feet tall. New bottom ash and fly ash handling systems will be installed, and a new ash storage building will be constructed. Fugitive ash emissions will be controlled by enclosing the ash transfer and storage system.

Natural gas fired auxiliary burners and combustion control systems with continuous monitoring devices for combustion and process parameters and SO₂, NO_x and CO will be installed to improve combustion efficiency and control.

Project: Facility Improvements
Facility ID No. 0570127
SIC: 4953

City of Tampa
McKay Bay Refuse-to-Energy Facility
Tampa, Florida

AIR CONSTRUCTION PERMIT 0570127-002-AC, PSD-FL-086(A)

SECTION I. FACILITY INFORMATION

In addition to the physical changes described above, the permit: specifies steam flow as the main process throughput parameter to be monitored; establishes maximum steam flow at 79,300 pounds per hour (at a net steam energy of 1103 Btu/lb -- the net steam energy, which is the difference in enthalpy of the steam and the feedwater, is not required to be regularly calculated or monitored by this permit); provides for combustion of segregated waste streams and defines more precisely the types of wastes that may be burned; removes the VOC limitations imposed by the current operation permit; and specifies the requirements of the emission guidelines for fugitive PM emissions from the ash handling and storage processes, which constitute MACT, be substituted for the PM RACT requirements of Rule 62-296.711, F.A.C. (Materials Handling), pursuant to Rule 62-296.711(2)(c), F.A.C.

SUBSECTION B. REGULATORY CLASSIFICATION

This facility is listed in Table 62-212.400 of Chapter 62-212, F.A.C., "Major Facilities Categories". Stack and fugitives emissions of over 100 tons per year of particulate matter, carbon monoxide, volatile organic compounds, sulfur dioxide, and nitrogen oxides, characterize the installation as a major facility. The installation of the new air pollution control system will not subject this facility to PSD review under the requirement of Rule 62-212.400, F.A.C., since there is not an increase in actual emissions. As a Resource Recovery Facility (waste-to-energy facility), the affected emissions units are subject to applicable requirements of Rule 62-296.416, F.A.C. Waste to Energy, and Rule 62-204.800, F.A.C., which incorporates 40 CFR 60 Subpart Db, Subpart Cb, Subpart E, and the requirements of Subpart Eb specified by Subpart Cb.

SUBSECTION C. PERMIT SCHEDULE:

- February 18, 1998, notice of intent published in The Tampa Tribune
- January 29, 1998, issued notice of intent to issue permit
- November 13, 1997, application deemed complete

SUBSECTION D. RELEVANT DOCUMENTS:

The documents listed below are the basis of the permit. They are specifically related to this permitting action. These documents are on file with the Department.

Application received (Bureau of Air Regulation) on September 16, 1997

Department's letter dated October 14, 1997

Information submitted by the City's consultant and attorney received October 31, November 13, December 16, December 22, 1997, January 12, 15, and 21, 1998

Project: Facility Improvements
Facility ID No. 0570127
SIC: 4953

City of Tampa
McKay Bay Refuse-to-Energy Facility
Tampa, Florida

SECTION II. EMISSION UNIT(S) GENERAL REQUIREMENTS

SUBSECTION A. ADMINISTRATIVE

- A.1 Regulating Agencies: All documents related to applications for permits to construct, operate or modify an emissions unit should be submitted to the Bureau of Air Regulation (BAR), Florida Department of Environmental Protection (FDEP) at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400 and phone number 850/488-1344. All documents related to reports, tests, and notifications should be submitted to the Department's Southwest District office (DEPSWD), 3804 Coconut Palm Drive, Tampa, Florida 33619 and phone number 813/744-6100 and the Hillsborough County Environmental Protection Commission (HCEPC), 1900 Ninth Avenue, Tampa, Florida 33605 and phone number 813/272-5960.
- A.2 General Conditions: The owner and operator is subject to and shall operate under the attached General Permit Conditions G.1 through G.15 listed in Appendix GC of this permit. General Permit Conditions are binding and enforceable pursuant to Chapter 403 of the Florida Statutes. [Rule 62-4.160, F.A.C.]
- A.3 Terminology: The terms used in this permit have specific meanings as defined in the corresponding chapters of the Florida Administrative Code.
- A.4 Forms and Application Procedures: The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C. and follow the application procedures in Chapter 62-4, F.A.C. [Rule 62-210.900, F.A.C.]
- A.5 Application for Title V Permit: An application for a modification of the Title V operating permit, pursuant to Chapter 62-213, F.A.C., must be submitted to the DEP's Bureau of Air Regulation, and a copy to DEPSWD and HCEPC. [Chapter 62-213, F.A.C.]
- A.6 New or Additional Conditions: Pursuant to Rule 62-4.080, F.A.C., for good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time.

SECTION II. EMISSION UNIT(S) GENERAL REQUIREMENTS

SUBSECTION B. CONSTRUCTION REQUIREMENTS

B.1 Unless otherwise indicated in this permit, the construction and operation of the subject emissions unit (s) shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of Chapter 403, F.S. and Florida Administrative Code Chapters 62-4, 62-103, 62-204, 62-212, 62-213, 62-296, 62-297 and the Code of Federal Regulations Section 40, Part 60, adopted by reference in the Florida Administrative Code (F.A.C.) regulations [Rule 62-204.800, F.A.C.]. Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting or regulations [**Rule 62-210.300, F.A.C.**]

SUBSECTION C. OPERATIONAL REQUIREMENTS

- C.1 Changes/Modifications: The owner or operator shall submit to the Department's Bureau of Air Regulation, for review any changes in, or modifications to: the method of operation; process or pollution control equipment; increase in hours of operation; equipment capacities; or any change which would result in an increase in potential/actual emissions. Depending on the size and scope of the modification, it may be necessary to submit an application for, and obtain, an air construction permit prior to making the desired change. *Routine maintenance of equipment will not constitute a modification of this permit.* [**Rule 62-4.030, 62-210.300 and 62-4.070(3), F.A.C.**]
- C.2 Plant Operation - Problems: If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by fire, wind or other cause, the owner or operator shall notify the Department's Southwest District office (DEPSWD) and the Hillsborough County Environmental Protection Commission (HCEPC) as soon as possible, but at least within one working day, excluding weekends and holidays. The notification shall include: pertinent information as to the cause of the problem; the steps being taken to correct the problem and prevent future recurrence; and where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with the conditions of this permit and the regulations. [**Rule 62-4.130, F.A.C.**]
- C.3 Operating procedures shall include good combustion practices and proper training and certification of all operators. The good combustion practices shall meet the guidelines established in 40 CFR 60, Subpart Cb and procedures as established by recognized industry standards. All operators (including supervisors) of air pollution control device shall be properly trained and certified in plant specific equipment. A list of all such certified personnel shall be submitted to the Department's Southwest District office (DEPSWD) and

SECTION II. EMISSION UNIT(S) GENERAL REQUIREMENTS

the Hillsborough County Environmental Protection Commission (HCEPC). Department's staff shall be given notice of any formal training sessions related to operation and maintenance of air pollution control devices. [Rule 62-204.800(8), F.A.C. and 62-4.070 (3), F.A.C.]

- C.4 Exceptions and Approval of Alternate Procedures and Requirements: An Alternate Sampling Procedure (ASP) may be requested from the Bureau of Air Monitoring and Mobile Sources of the Florida Department of Environmental Protection in accordance with the procedures specified in **Rule 62-297.620, F.A.C.**

SUBSECTION D. MONITORING OF OPERATIONS

Determination of Process Variables

- D.1 The permittee shall operate and maintain equipment and/or instruments necessary to determine process variables, such as heat input, when such data is needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.
- D.2 Equipment and/or instruments used to directly or indirectly determine such process variables, including devices such as belt scales, weigh hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value. [Rule 62-297.310(5), F.A.C.]

SUBSECTION E. OTHER REQUIREMENTS

- E.1 Waste Disposal: The owner or operator shall treat, store, and dispose of all liquid, solid, and hazardous wastes in accordance with all applicable Federal, State, and Local regulations. This air pollution permit does not relieve the permittee from securing any other types of required permits, licenses, or certifications.

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SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

SUBSECTION A. 40 CFR 60, NSPS, GENERAL PROVISIONS

The following emission limitations shall apply to each affected emissions unit after the proposed improvements to comply with 40 CFR 60 Subpart Cb are made and compliance testing is completed. This section addresses the following emissions units:

EMISSIONS UNIT NO.	EMISSIONS UNITS DESCRIPTION
001	120 mmBtu/hr (maximum) Municipal Waste Combustor & Auxiliary Burners - Unit No. 1
002	120 mmBtu/hr (maximum) Municipal Waste Combustor & Auxiliary Burners - Unit No. 2
003	120 mmBtu/hr (maximum) Municipal Waste Combustor & Auxiliary Burners - Unit No. 3
004	120 mmBtu/hr (maximum) Municipal Waste Combustor & Auxiliary Burners - Unit No. 4
006	Ash Building and Handling System

{Note: Each unit will have a short term tonnage capacity of 288 tons of waste per day and a maximum heat input capacity of 120 mmBtu/hr. Nominal heat input capacity is 104 mmBtu/hr. These capacities are not limited by this permit. Instead the nominal capacity is limited to 250 tons of waste per day, as determined by a rolling 12 month average. Short-term capacity is limited by limiting steam production, which effectively limits heat input.}

The affected emissions units shall comply with all applicable requirements of 40 CFR 60, General Provisions, Subpart A, after improvements to comply with 40 CFR 60 Subpart Cb are completed.

- A.1 [40 CFR 60.7, Notification and record keeping]
- A.2 [40 CFR 60.8, Performance tests]
- A.3 [40 CFR 60.11, Compliance with standards and maintenance requirements]
- A.4 [40 CFR 60.12, Circumvention]
- A.5 [40 CFR 60.13, Monitoring requirements]
- A.6 [40 CFR 60.19, General notification and reporting requirements]

The affected emissions units shall comply with all applicable provisions of the 40 CFR 60, Subpart E, New Source Performance Standards for Incinerators, and Subpart Cb, Emissions Guidelines for Existing Municipal Waste Combustors, along with applicable requirements of Subpart Db, New Source Performance Standards for Steam Generating Units, 40 CFR 61.30, Subpart C, NESHAP for Beryllium and Rule 62-296.416, F.A.C., Waste-to-Energy Facilities. In addition these emissions units shall also comply with all the conditions listed in Section II (Emissions Unit General Requirements) of this permit.

[Rule 62-4.070(3), 62-204.800(8) and 62-296-416, F.A.C.]

{Note: This project is subject to the requirements of 40 CFR 60, Subpart Cb. This permit may refer to the requirements of 40 CFR 60, Subpart Eb where these requirements are referenced by Subpart Cb.}

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SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

SUBSECTION B. SPECIFIC CONDITIONS:

The following specific conditions apply to the following emissions units after improvements to comply with 40 CFR 60 Subpart Cb are completed.

EMISSIONS UNIT NO.	EMISSIONS UNITS DESCRIPTION
001	120 mmBtu/hr (maximum) Municipal Waste Combustor & Auxiliary Burners - Unit No. 1
002	120 mmBtu/hr (maximum) Municipal Waste Combustor & Auxiliary Burners - Unit No. 2
003	120 mmBtu/hr (maximum) Municipal Waste Combustor & Auxiliary Burners - Unit No. 3
004	120 mmBtu/hr (maximum) Municipal Waste Combustor & Auxiliary Burners - Unit No. 4

{Note: Each unit will have a short term tonnage capacity of 288 tons of waste per day and a maximum heat input capacity of 120 mmBtu/hr. Nominal heat input capacity is 104 mmBtu/hr. These capacities are not limited by this permit. Instead the nominal capacity is limited to 250 tons of waste per day, as determined by a rolling 12 month average. Short-term capacity is limited by limiting steam production, which effectively limits heat input.}

OPERATIONAL REQUIREMENTS

- B.1 The combustor boilers shall have a metal name plate affixed in a conspicuous place on the shell showing manufacturer, model number, type waste, and rated capacity.
- B.2 Process Operating Rates: Each of the four municipal waste combustor units (MWCs) shall have a maximum rated capacity of 79,300 pounds of steam produced per hour based on a 4-hour block averaged measurement, with a net steam energy of 1103 Btu/lb of steam (the net steam energy may be calculated as the difference in enthalpy between the steam at the superheater outlet and the feedwater at the inlet). This capacity shall not be exceeded. Additionally, each unit shall not be charged with more than 250 tons of waste per day, as determined by a rolling 12 month average.
[Rules 62-4.030(3) and 62-204.800(8), F.A.C., 40 CFR 60.31b, 60.38b, 60.51b, and 60.58b(j)]
- B.3 Load Level : *Unit load* means the steam load of the municipal waste combustor (MWC) measured as specified in 40 CFR 60.58b(i)(6). Compliance with load level requirements shall be determined by a steam meter using ASME Power Test Code for Steam Generating Units, Power Test Code 4.1, section 4 (see 40 CFR 60.58b(i)(6)(ii) & (iii)). Each MWC unit shall not operate at a load level greater than 110 percent of the unit's *maximum demonstrated unit load* based on 4-hour block averaged measurements of steam flow. The maximum demonstrated unit load is the highest arithmetic averaged measurement of steam flow recorded for four consecutive hours during the most recent dioxin/furan performance stack test in which compliance with the dioxin/furan emission limit was achieved. Higher loads

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are allowed for testing purposes as specified at 40 CFR 60.53b(b) and condition D.7 of this permit.

[Rule 62-204.800(8), F.A.C., 40 CFR 60.31b; 60.38b; 60.51b; 60.53b(b); and 60.58b(i) (6)&(8)]

B.4 Emission Control Equipment

Particulate Matter

Each unit shall be equipped with a particulate control baghouse designed, constructed and operated so as not to exceed a maximum emission rate of 27 mg/dscm corrected to 7 percent O₂. These baghouses shall be equipped with pressure drop monitoring equipment.

Spray Dryer Scrubber

Each unit shall be equipped with a spray dryer scrubber designed, constructed and operated so as to remove SO₂ at an efficiency of 75 percent, or not to exceed a maximum emission rate of 29 ppm_{dv} corrected to 7 percent O₂, 24-hour block geometric mean, whichever is less stringent.

Carbon Injection

Each unit shall be equipped with a carbon injection system. The carbon injection rate must be estimated and maintained in compliance with the requirements set forth in 40 CFR 60.58b(m).

Selective Non Catalytic Reduction System

Each unit shall be equipped with a selective non catalytic reduction system designed, constructed and operated so as not to exceed a maximum NO_x emission rate of 205 ppm_{dv} corrected to 7 percent O₂, 24-hour block arithmetic mean (midnight to midnight).

Within 30 days after it becomes available, but before commencement of construction of the air pollution control equipment, the Permittee shall submit to the Department's Southwest District office (DEPSWD) and the Hillsborough County Environmental Protection Commission (HCEPC) copies of technical data pertaining to the selected emission control systems. This data should include, but not be limited to guaranteed efficiency and emission rates, and major design parameters.

B.5 Stack Height: The height of the boiler exhaust stack shall not be less than 201 feet above grade.

SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

B.6 Fuels

The primary fuel for the facility is municipal solid waste (MSW), including the items and materials that fit within the definition of MSW contained in either 40 CFR 60.51b or Section 403.706(5), Florida Statutes (1995).

[Rule 62-4.070(3), F.A.C., and request of applicant]

B.6.1 Subject to the limitations contained in this permit, the authorized fuels for the facility also include the other solid wastes that are not MSW which are described below. However, the facility shall not burn:

- (a) those materials that are prohibited by state or federal law;
- (b) those materials that are prohibited by this permit;
- (c) lead acid batteries;
- (d) hazardous waste;
- (e) nuclear waste;
- (f) radioactive waste;
- (g) sewage sludge;
- (h) explosives.

B.6.2 The fuel may be received either as a mixture or as a single-item stream (segregated load) of discarded materials. If the facility intends to use an authorized fuel that is segregated non-MSW material, the fuel shall be either:

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

B.6.3 The facility operator shall prepare and maintain records concerning the description and quantities of all segregated loads of non-MSW material which are received and used as fuel at the facility, and subject to a percentage weight limitation, below (B.6.6. and B.6.7). For the purposes of this permit, a segregated load is defined to mean a container or truck that is almost completely or exclusively filled with a single item or homogeneous composition of waste material, as determined by visual observation.

B.6.4 To ensure that the facility's fuel does not adversely affect the facility's combustion process or emissions, the facility operator shall:

- (a) comply with good combustion operating practices in accordance with 40 CFR 60.53b;

SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

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

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

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

B.6.5 Subject to the conditions and limitations contained in this permit, the following other solid waste may be used as fuel at the facility:

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

B.6.6 Subject to the conditions and limitations contained in this permit, waste tires may be used as fuel at the facility. The total quantity of waste tires received as segregated loads and burned at the facility shall not exceed 3%, by weight, of the facility's total fuel. Compliance with this limitation shall be determined by using a rolling 30 day average in accordance with specific condition B.24 below.

B.6.7 Subject to the conditions and limitations contained in this permit, the following other solid waste materials may be used as fuel at the facility (i.e. the following are authorized fuels that are non-MSW material). The total quantity of the following non-MSW material received as segregated loads and burned at the facility shall not exceed 5%, by weight, of

SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

the facility's total fuel. Compliance with this limitation shall be determined by using a rolling 30 day average in accordance with specific condition B.24 below.

- (a) Construction and demolition debris.
- (b) Oil spill debris from aquatic, coastal, estuarine or river environments. Such items or materials include but are not limited to rags, wipes, and absorbents.
- (c) Items suitable for human, plant or domesticated animal use, consumption or application where the item's shelf-life has expired or the generator wishes to remove the items from the market. Such items or materials include but are not limited to off-specification or expired consumer products, pharmaceuticals, medications, health and personal care products, cosmetics, foodstuffs, nutritional supplements, returned goods, and controlled substances.
- (d) Consumer-packaged products intended for human or domesticated animal use or application but not consumption. Such items or materials include but are not limited to carpet cleaners, household or bathroom cleaners, polishes, waxes and detergents.
- (e) Waste materials that:
 - (i) are generated in the manufacture of items in categories (c) or (d), above and are functionally or commercially useless (expired, rejected or spent); or
 - (ii) are not yet formed or packaged for commercial distribution. Such items or materials must be substantially similar to other items or materials routinely found in MSW.
- (f) Waste materials that contain oil from:
 - (i) the routine cleanup of industrial or commercial establishments and machinery; or
 - (ii) spills of virgin or used petroleum products. Such items or materials include but are not limited to rags, wipes, and absorbents.
- (g) Used oil and used oil filters. Used oil containing a PCB concentration equal or greater than 50 ppm shall not be burned, pursuant to the limitations of 40 CFR 761.20(e).
- (h) Waste materials generated by manufacturing, industrial or agricultural activities, provided that these items or materials are substantially similar to items or materials that are found routinely in MSW, subject to prior approval of the Department.

B.7 Startup/Shutdown/Malfunctions

- (a) The emission limitations for this facility shall apply at all times, except during periods of warm-up, startup, shutdown, or malfunctions, provided that the duration of startup, shutdown, or malfunction periods do not exceed 3 hours per occurrence. The duration of warm-up periods is not limited. The startup period commences when the affected facility begins the continuous burning of waste and does not include any warm-up period when the affected facility is combusting only natural gas and waste is not being introduced to the combustor. The use of waste solely to provide thermal protection to the grate during

SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

the warm-up periods when waste is not being fed to the combustor is not considered to be continuous burning. During all startups, shutdowns, and malfunctions, the owner/operator shall use best operational practices to minimize air pollutant emissions.

- (b) A malfunction means any unavoidable failure of air pollution control equipment or process equipment to operate in a normal or usual manner. Excess emissions that are caused entirely or in part by poor maintenance, careless operation, any other preventable upset condition, or preventable equipment breakdown shall not be considered malfunctions. Excess emissions resulting from startup, shutdown or malfunction of any source shall be permitted providing: (1) best operational practices to minimize emissions are adhered to, and (2) the duration of excess emissions shall be minimized but in no case exceed 3 hours per occurrence.

[Rule 62-210.700, and 62-204.800(8), F.A.C., and 40 CFR 60.58b(a)(1)]

EMISSION LIMITATIONS & STANDARDS

B.8 Emissions from each MWC unit shall not exceed the limits listed in the following table. [Rules 62-4.030 and 62-296.416, F.A.C., 40 CFR 60.52b and 40 CFR 60.53b(b), and request of applicant]

POLLUTANT	EMISSION STANDARDS			
	Emission Guideline Limits	lb/mmBtu	lb/hr	ton/yr
PM ⁽¹⁾ Particulate Matter	27 mg/dscm, corrected to 7% O ₂	0.0230	2.76	12.1
VE Visible Emissions	10% (6 minute average)			
Cd Cadmium	0.040 mg/dscm corrected to 7% O ₂	3.42E-05	4.10E-03	0.0179
F Fluoride (as HF)	1.5 lb/hr	0.0125	1.5	6.57
Be ⁽²⁾ Beryllium	0.000115 lb/hr	9.58E-07	1.15E-04	5.04E-04
Pb Lead	440 ug/dscm corrected to 7% O ₂	3.76E-04	0.0451	0.197
Hg Mercury	70 ug/dscm corrected to 7% O ₂ or 85% reduction by weight (whichever is less stringent)	NA	NA	0.0605
SO₂ Sulfur Dioxide	29 ppmdv corrected to 7% O ₂ or 75% reduction by weight or volume (whichever is less stringent)	NA	NA	See Below ⁽³⁾
HCl Hydrochloric Acid	29 ppmdv corrected to 7% O ₂ or 95% reduction by weight or volume (whichever is less stringent)	NA	NA	67.9

(This table is continued on the next page.)

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POLLUTANT	EMISSION STANDARDS, CONTINUED			
	Emission Guideline Limits	lb/mmBtu	lb/hr	ton/yr
Dioxins/Furans	30 ng/dscm (total mass) corrected to 7% O ₂	2.56E-08	3.07E-06	1.35E-05
CO Carbon Monoxide	100 ppmdv corrected to 7% O ₂	0.0995	11.9	See Below ⁽³⁾
NO _x ⁽³⁾ Nitrogen Oxides	205 ppmdv corrected to 7% O ₂	0.335	40.1	See Below ⁽³⁾

Emissions from the facility shall not exceed the limits listed in the following table.

POLLUTANT ⁽⁴⁾	EMISSION STANDARDS	EMISSION LIMIT (Tons in any consecutive 12-month period)
SO ₂ Sulfur Dioxide	Emissions shall not to exceed 460 tons in any consecutive 12 month period	460
CO Carbon Monoxide	Emissions shall not to exceed 185 tons in any consecutive 12 month period	185
NO _x Nitrogen Oxides	Emissions shall not to exceed 679 tons in any consecutive 12 month period	679

Notes to tables:

- (1) This limit for PM is more restrictive than the emission limit for PM in 40 CFR 60.43b (Subpart Db).
- (2) The limit for Beryllium is more stringent than that imposed by the NESHAP, 40 CFR 61.32 (a) (Subpart C). This limit will remain the same as specified in previous permits.
- (3) The NO_x standard of 40 CFR 60.44b does not apply to these emissions units because this permit subjects this facility to a federally enforceable requirement that limits the facility to an annual capacity factor of 10 percent or less for natural gas.
- (4) Emissions of sulfur dioxide, carbon monoxide and nitrogen oxides are limited on a facility-wide basis to limit emission increases below PSD significance levels.

NA Standards expressed in terms of lb/mmBtu and lb/hr are not applicable to these pollutants.

Basis: Emissions calculations (lb/hr and ton/yr) are based on the maximum heat input rate of 120 mmBtu/hr (79,300 lb steam/hr) per unit and 8760 hours of operation.

Averaging Times

- SO₂: 24-hour daily block geometric mean (midnight to midnight).
- NO_x: 24-hour daily block arithmetic mean (midnight to midnight).
- CO: 4-hour block arithmetic mean beginning at midnight.
- Opacity: 6 minute arithmetic mean.

Abbreviations

- ug/dscm: Micrograms per dry standard cubic meter
- mg/dscm: Milligrams per dry standard cubic meter
- ng/dscm: Nanograms per dry standard cubic meter
- ppmdv: Part per million dry volume
- Dioxins/ furans: Total tetra through octa-chlorinated dibenzo-p-dioxins and dibenzofurans
- F: Fluorides as hydrogen fluoride

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Auxiliary Burners: Nitrogen oxides emission from the auxiliary burners are expected to be approximately 2.4 lb/hr and 10.5 ton/yr. per unit. These emissions are included in, and not in addition to, combustor emissions, as limited above. Allowable emissions for MSW combustors include emissions from auxiliary burners. The gross heat input from natural gas combustion in the auxiliary burners shall not exceed 10 percent of the total potential heat input in any calendar year. Auxiliary burners for each MWC unit shall be fired only with natural gas, and the annual capacity factor for natural gas is 10% or less; see 40 CFR 60.44b(d). See condition B.9 of this permit.

[40 CFR 60.44b, Rules 62-210.200, 62-204.800 (8) and 62-4.070(3), F.A.C., and request of applicant]

- B.9 Auxiliary Burners: Auxiliary burners for each unit shall be fired only with natural gas. The annual capacity factor for natural gas for each unit shall be limited to 10% or less. The annual capacity factor for natural gas is the ratio between the heat input to the unit from natural gas during a calendar year and the potential heat input to the unit had it been operated for 8,760 hours during a calendar year at the maximum steady state design heat input capacity. Monthly records shall be maintained of the amount of natural gas used by the auxiliary burners of each unit and the equivalent heat input from natural gas. On an annual basis (no later than 30 days after the end of the calendar year), a demonstration must be performed based on the monthly records showing that the capacity factor for natural gas for each unit was 10% or less.

[Rule 62-4.070(3), F.A.C., 40 CFR 60.41b and 40 CFR 60.44b(d)]

{Note: This condition effectively limits annual average heat input from natural gas to approximately 12 mmBtu/hr per unit.}

COMPLIANCE AND PERFORMANCE TESTING

B.10 Stack Testing

Compliance with the emission limits for carbon monoxide (CO), nitrogen oxides (NO_x), and sulfur dioxide (SO₂) in specific condition B.8 of this permit shall be demonstrated by continuous emission monitoring systems (CEMS) as required by specific condition B.13.

Compliance tests for the other pollutants listed in specific condition B.8 shall be performed annually by using the following reference methods as described in 40 CFR 60, Appendix A and/or 40 CFR 61 Appendix B adopted by reference in Chapter 62-204, F.A.C. or any other method as approved by FDEP, in accordance with Chapter 62-297, F.A.C. Stack tests may also require Method 1, 2, 3/3A/3B and 4 tests as appropriate. Testing shall be conducted in accordance with the requirements of 40 CFR 60.58b Compliance and Performance Testing. Emission determinations based on stack tests are to be the average of three valid test runs pursuant to Rule 62-297.310(1), F.A.C. A test protocol shall be

SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

submitted for approval to the Department's Southwest District office (DEPSWD) and the Hillsborough County Environmental Protection Commission (HCEPC) at least 45 days prior to the initial testing. [Rule 62-204.800(8), F.A.C. and Chapter 62-297, F.A.C.]

- Method 5 ⁽¹⁾ Determination of Particulate Matter Emissions from Stationary Sources.
Method 9 Visual Determination of the Opacity of Emissions from Stationary Sources.
Method 13A ⁽⁴⁾ Determination of Total Fluoride Emission from Stationary Sources.
or 13B
Method 23 ⁽²⁾ Determination of Dioxin/furan Concentration from Stationary Sources.
Method 26 ⁽³⁾ Determination of HCl emissions.
or 26A
Method 29 ^{(3) (4)} Determination of Metals Emissions from Stationary Sources.

- (1) Pursuant to 40 CFR 60.58b(c)(3) EPA Reference Method 5 shall be used for determining compliance with the particulate matter emission limit. The minimum sample volume shall be 1.7 cubic meters. The probe and filter holder heating systems in the sample train shall be set to provide a gas temperature no greater than 160 ± 14 °C. An oxygen or carbon dioxide measurement shall be obtained simultaneously with each Method 5 run.
- (2) Dioxin/Furan emission limit expressed as the total mass of tetra- through octa-chlorinated dibenzo-p-dioxins and dibenzofurans. The facility may perform less frequent testing for dioxin/furan emissions, as allowed by 40 CFR 60.38b(b) with prior notice to the Department, if the facility's dioxin/furan emissions do not exceed 15 ng/dscm corrected to 7% O₂ or less for all MWC units.
- (3) Mercury and HCl stack tests upstream and downstream of the control device(s) shall be conducted to calculate percent control.
- (4) Testing for compliance with the fluoride and beryllium emission limits shall be demonstrated during the initial compliance test and every five years thereafter.

Initial compliance tests for each combustion unit shall be conducted within 60 days after achieving maximum operating capacity, but no later than 180 days after startup. Annual tests shall be conducted within one year after the initial tests, unless otherwise allowed by the Department.

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Unit load levels (steam flow) and particulate control device inlet temperatures may be varied for purposes of testing in accordance with 40 CFR 60.53b(b)&(c). See also specific conditions B.3, B.14, B.16 and D.7 of this permit.

- B.11. Test Procedures: Compliance tests shall meet all applicable requirements (i.e., testing frequency, minimum compliance duration, etc.) of Chapter 62-297, F.A.C. The Method 9 test shall be conducted during one run of the particulate matter test. The particulate matter test shall be conducted under conditions representative of normal operations and shall be scheduled to coincide with as much of the normal cleaning (sootblowing) cycle as practicable. Initial performance tests for SO₂ and NO_x shall be conducted using CEMS in accordance with the methods and requirements of 40 CFR 60.58b(e)(4) and (h)(3), respectively. [Rules 62-4.070(3), 62-297.310 and 62-204.800(8), F.A.C.; 40 CFR 60.38b and 40 CFR 60.58b]
- B.12 Stack Testing Facilities: The owner or operator shall install stack testing facilities in accordance with Rule 62-297.310(6), F.A.C. The owner or operator shall provide ports in the air pollution control equipment outlet duct or stack and shall provide access to the sampling ports. [Rule 62-297.310(6)(c), F.A.C.]

MONITORING OF OPERATIONS

- B.13 Continuous Monitoring: Compliance with the emission limits for carbon monoxide (CO), nitrogen oxides (NO_x), and sulfur dioxide (SO₂) in specific condition B.8 of this permit shall be demonstrated by continuous emission monitoring systems (CEMS) operated in accordance with the requirements of 40 CFR 60.58b. Oxygen (O₂), and opacity shall be monitored by continuous monitoring systems. Monitors for sulfur dioxide and oxygen shall be located both upstream of the dry scrubber and downstream of the baghouse in order to calculate percentage removal efficiency. Continuous monitoring systems shall be installed, calibrated, maintained and operated as required by 40 CFR 60.13 and shall conform to all applicable Performance Specifications in 40 CFR 60, Appendix B. Quality assurance procedures shall conform to all applicable sections of 40 CFR 60, Appendix F. Initial performance evaluations shall be completed within 180 days after initial startup of each retrofitted unit. Data on continuous monitor equipment specifications, manufacturer, type, calibration and maintenance needs, and proposed locations shall be provided to the Department's Southwest District office (DEPSWD) and the Hillsborough County Environmental Protection Commission (HCEPC) for review at least 90 days prior to installation. [Rules 62-4.070(3) and 62-204.800(8), F.A.C.; 40 CFR 60.38 and 40 CFR 60.58b]
- B.14 Continuous Load Monitoring: The owner or operator shall install, calibrate, maintain, and operate a steam flow meter, measure steam flow in kilograms (or pounds) per hour on a

SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

continuous basis, and record the output of the monitor (in accordance with the ASME method described in 40 CFR 60.58b(i)(6)). Steam flow shall be calculated in 4-hour block arithmetic averages. Higher loads are allowed for testing purposes pursuant to 40 CFR 60.53b(b).

[Rule 62-204.800(8), F.A.C., 40 CFR 60.31b; 60.38b; 60.51b; 60.53b(b); and 60.58b(i)(6)]

B.15 Charging Rate Monitoring: The average daily solid waste charging rate shall be determined on a monthly basis and recorded for each MWC unit. The daily charging rate shall be determined each month on an average daily basis for each MWC unit using the Facility's truck scale weight data, refuse pit inventory data and MWC operating data for the preceding calendar month. Monthly truck scale weight records of the weight of solid waste received and processed at the Facility, and refuse pit inventory data, shall be used to determine the amount of solid waste charged during the preceding calendar month on an average daily basis. The MWC load level measurements or other operating data shall be used to determine the number of operating hours per MWC unit for each day during the preceding calendar month.

[Rules 62-204.800(8) and 62-4.070(3), F.A.C., and 40 CFR 60.53(a)]

B.16 Compliance with the PM Control Device Temperature: Each MWC unit is required to continuously monitor and record the flue gas temperature at the inlet to the PM control device in accordance with the requirements at 40 CFR 60.58b(i)(7). The PM control device temperature shall be calculated in 4-hour block arithmetic averages. Each MWC unit shall be allowed to operate up to 17°C (30° F) above the unit's maximum demonstrated PM control device temperature. The maximum demonstrated PM control device temperature is the highest 4-hour arithmetic measurement of temperature at the inlet to the PM control device recorded for 4 consecutive hours during the most recent dioxin/furan performance test which complied with the limits given above. The PM control device inlet temperature and the steam flow for each unit during the stack test shall be continuously monitored and recorded in accordance with 40 CFR 60, Subpart Cb. Higher temperatures are allowed for testing purposes, as specified at 40 CFR 60.53b(c). [Rule 62-204.800(8), F.A.C. and 40 CFR 60.38b, 40 CFR 60.53b(c) and 60.58b(i)(7) and (9)]

B.17 Carbon Injection Rate: The carbon injection rate for each MWC unit in kilograms (or pounds) per hour shall be estimated during each mercury and dioxin/furan compliance stack test based on carbon injection system operating parameters such as the screw feeder speed, hopper volume, hopper refill frequency, or other parameters appropriate to the feed system being employed. During operation of each MWC unit, the carbon injection system

SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

operating parameter(s) that are the primary indicator(s) of carbon mass feed rate must equal or exceed the level(s) documented during the most recent mercury and dioxin/furan stack tests in which compliance with the emission limits were achieved. The owner or operator shall estimate the total carbon usage for the facility for each calendar quarter by the following two independent methods: (1) the weight of carbon delivered to the facility, and (2) estimate the average carbon mass feed rate (kg/hr or lb/hr) for each hour of operation for each MWC unit based on the primary indicator(s) for carbon mass feed rate, and sum the results for all MWC units for the total number of operating hours of operation during the calendar quarter.

[Rule 62-204.800(8), F.A.C. and 40 CFR 60.58b(m)]

- B.18 Continuous Monitors: Continuous monitors with recorders shall be installed, calibrated, maintained and operated for each unit subject to review by the Department's Southwest District office (DEPSWD) and the Hillsborough County Environmental Protection Commission (HCEPC) for the following operational parameters:

Total steam production (mass/hr, pressure and temperature)

Carbon injection system operating parameters

Particulate matter control device inlet temperature

Power generation (MW) (total power production from the single turbine generator)

[Rule 62-204.800(8), F.A.C. and 40 CFR 60.58b]

RECORD KEEPING AND REPORTING REQUIREMENTS

- B.19 Reports and Records:

All measurements, records and other data (test reports, etc.) required to be maintained by this facility shall be retained for at least five (5) years following the date on which such measurements, records and other data are recorded. Such records shall be maintained at the facility and shall include but not be limited to the items listed below. These records shall be made available upon request to the Department's Southwest District office (DEPSWD) and the Hillsborough County Environmental Protection Commission (HCEPC) for inspection at the facility. [Rules 62-4.070(3) and 62-4.160(14)(b), F.A.C., 40 CFR 60.5b and 40 CFR 60.44b(d)]

- (a) Data collected from monitoring instruments, including continuous monitoring systems, steam flow measurements and PM control device temperatures;
- (b) Continuous steam flow records on a 4-hour block average basis;

SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

- (c) Records of daily solid waste charging rates and hours of operation derived from monthly truck scale data, refuse pit inventory, and operational records;
- (d) Amount of natural gas burned for each unit each month; the equivalent heat input from natural gas for each unit each month, calculated using the heat value for natural gas provided by the natural gas supplier; and the annual records of the natural gas capacity factor for each unit;
- (e) Results of all source tests or performance tests; and records of the maximum demonstrated unit load specified by condition B.3 of this permit.
- (f) Amounts of activated carbon used for emissions control;
- (g) Calibration logs for all instruments subject to this permit;
- (h) Maintenance/repair logs for any work performed which is subject to this permit;
- (i) Records showing the names of facility personnel who have been provisionally or fully certified, and who have completed the MWC operator training course, and who have completed reviews of the operating manual, including the dates and documentation of certification/review.
- (j) Records demonstrating compliance with the percentage limitations on segregated solid wastes required by specific condition B.24 of this permit.

B.20 Excess Emission Reports:

B.20.1 Quarterly Reports:

The owner or operator shall submit excess emission reports for any calendar quarter during which there are excess emissions from the facility pursuant to 40 CFR 60.7(c). If there are no excess emissions during the calendar quarter, the owner or operator shall submit a report quarterly stating that no excess emissions occurred during the quarterly reporting period. The report shall include the following:

- (a) The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factors used, and the date and time of commencement and completion of each period of excess emissions. [40 CFR 60.7(c)(1)]
- (b) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the furnace boiler system. The nature and cause of any malfunction (if known) and the corrective action taken or preventive measures adopted. [40 CFR 60.7(c)(2)]

SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

- (c) The date and time identifying each period during which the continuous monitoring system (CEM/COM) was inoperative except for zero and span checks, and the nature of the system repairs or adjustments. [40 CFR 60.7(d)(2) as applicable]
- (d) When no excess emissions have occurred or the continuous monitoring system (CEM/COM) has not been inoperative, repaired, or adjusted, such information shall be stated in the report. [40 CFR 60.7(c)(4)]

B.20.2 Other Excess Emission Reports:

In case of excess emissions resulting from malfunctions*, the owner or operator shall notify Department's Southwest District office (DEPSWD) and the Hillsborough County Environmental Protection Commission (HCEPC) in accordance with Section 62-4.130, F.A.C. The DEPSWD and the HCEPC shall be notified within one working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the DEPSWD or the HCEPC may request a written summary report of the incident. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the DEPSWD or HCEPC.

* Malfunction is defined at Rule 62-210.200(179) to mean any unavoidable mechanical and/or electrical failure of air pollution control equipment or process equipment or of a process resulting in operation in an abnormal or unusual manner.

[Rules 62-4.130 and 62-210.700(6), F.A.C.]

- B.21 Continuous Emission Monitoring System Reports: For CEM and other monitoring systems required by this permit, data on monitoring equipment specifications, manufacturer, type, calibration and maintenance needs, and proposed sampling location shall be provided to the Department's Southwest District office (DEPSWD) and the Hillsborough County Environmental Protection Commission (HCEPC) for review at least 90 days prior to installation.
- B.22 Operating Reports: Before March 1st of each year, the owner or operator shall submit to the Department's Southwest District office (DEPSWD) and the Hillsborough County Environmental Protection Commission (HCEPC) the Annual Operating Report [DEP Form No. 62-210.900(5)], which summarizes operations for the previous calendar year.

SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

No later than February 1st of each year, the owner or operator shall submit an annual report for the previous calendar year including the information required by 40 CFR 60.59b(g)(1) through (4), as applicable.

In addition, if applicable, the owner or operator shall submit to the DEPSWD and the HCEPC offices the information required in 40 CFR 60.59b(h) on a semiannual basis. [Rule 62-210.370(3), F.A.C. and 40 CFR 60.59(g) and if applicable 40 CFR 60.59b(h)]

B.23 Sampling Reports: Drawings of testing facilities including sampling port locations as required by Section 62-297.310(8)(c) shall be submitted to the Department's Southwest District office (DEPSWD) and the Hillsborough County Environmental Protection Commission (HCEPC) for review at least 60 days prior to construction of the sampling ports.

B.24 Segregated Solid Waste Record Keeping: The following records shall be made and kept to demonstrate compliance with the segregated non-MSW percentage limitations of specific condition B.6.6 and B.6.7:

Each segregated load of non-MSW materials, that is subject to the percentage weight limitations of specific condition B.6.6 and B.6.7, which is received for processing shall be documented as to waste description and weight. The weight of all waste materials received for processing shall be measured using the facility truck scale and recorded.

Each day the total weight of segregated tires received shall be computed, and the daily total shall be added to the sum of the daily totals from the previous 29 days. The resultant 30 day total weight of tires shall be divided by the total weight of all waste materials received in the same 30 day period, and the resultant number shall be multiplied by 100 to express the ratio in percentage terms. The percentage computed shall be compared to the 3% limitation.

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

SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

- B.25 Heat Input Reporting Requirements. The owner or operator shall submit to the Department's Southwest District office (DEPSWD) and the Hillsborough County Environmental Protection Commission (HCEPC) notification of the date of initial startup as provided by 40 CFR 60.7. Such notification shall include the design heat input capacity of the affected facility, and the annual capacity factor at which the owner or operator anticipates operating the facility based on all fuels fired and based on each fuel fired. (The two fuels fired at this facility are solid wastes allowed by this permit and natural gas.) [40 CFR 60.49b(a)(1) & (3)]
- B.26 Report of Vendor and Equipment Selection. Within 60 days of selection of a primary vendor for this project, a report detailing the design features of the MWC equipment to be installed shall be submitted to the Department's Southwest District office (DEPSWD) and the Hillsborough County Environmental Protection Commission (HCEPC). Such report shall include the nominal and maximum design capacities of the furnaces, grates and boilers, and shall detail operating rates such as heat input, steam production, mass throughput and turndown capability for each unit. [Rule 62-4.070(3), F.A.C.]

OPERATOR TRAINING AND CERTIFICATION

- B.27 Requirements
- (a) One of the following persons must be on duty at the facility at any time during which one or more of the MWC units is operating: a fully certified chief facility operator or shift supervisor; or a provisionally certified chief facility operator or shift supervisor who is scheduled to take the full certification exam. If this person must leave the facility during his or her operating shift, a provisionally certified control room operator who is on site may fulfill this requirement. [40 CFR 60.39b(c)(4) (ii) and 40 CFR 60.54b(c)]
 - (b) Each chief facility operator and shift supervisor must obtain and maintain a current provisional operator certification and be scheduled for a full certification exam, or receive full certification, with either the ASME or an equivalent state-approved certification program before the date that person assumes responsibility for operation of the facility. [40 CFR 60.39b(c)(4)(ii) and 40 CFR 60.54b(a) and (b)]
 - (c) Each chief facility operator, shift supervisor, and control room operator must complete the EPA or state approved MWC operator training course before the date that person assumes responsibility for operation of the facility. The operator training course

SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

requirements of 40 CFR 60.54b(d) do not apply to chief facility operators, shift supervisors and control room operators who have obtained full ASME certification on or before the date of State plan approval (November 13, 1997). [40 CFR 60.39b(c)(4)(iii)(A).] The owner or operator may request that the Department waive the operator training course requirements specified in 40 CFR 60.54b(d) for chief facility operators, shift supervisors and control room operators who have obtained provisional ASME certification on or before the date of State plan approval (November 13, 1997) [40 CFR 60.39b(c)(4)(iii)(B)]. [40 CFR 60.39b(c)(4) and 40 CFR 60.54b(d)]

- (d) A site-specific operating manual must be developed and updated on an annual basis [40 CFR 60.54b(e)]. A training program must be established to review the operating manual with each person who has responsibilities affecting the operation of the MWC including chief facility operators, shift supervisors, control room operators, ash handlers, maintenance personnel, and crane/load handlers. Each person must undergo initial training before the day that person assumes responsibilities affecting operation of the facility and annually thereafter pursuant to 40 CFR 60.54b(f). The operating manual must be kept in a readily accessible location for all persons required to undergo training. [40 CFR 60.35b and 40 CFR 60.54b(e) & (f)]

AIR CONSTRUCTION PERMIT 0570127-002-AC, PSD-FL-086(A)

SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

SUBSECTION C. SPECIFIC CONDITIONS:

The following specific conditions apply to the following emissions units after improvements to comply with 40 CFR 60 Subpart Cb are completed.

EMISSIONS UNIT No.	EMISSIONS UNITS DESCRIPTION
006	Ash Building and Handling System
007	Lime Silo
008	Carbon Silo

EMISSION LIMITATIONS

C.1 Lime & Carbon Silos and Ash Handling System:

Particulate emissions from these emissions units shall be limited as follows:

- (a) In no case shall PM emissions from the lime storage silo exhaust exceed 0.015 gr/dscf during filling operations of the lime storage silo. Visible emissions shall not exceed 5% opacity in accordance with specific condition C.3.
- (b) In no case shall particulate matter emissions from the activated carbon storage silo exhaust exceed 0.015 gr/dscf during filling operations of the activated carbon storage silo. Visible emissions shall not exceed 5% opacity in accordance with specific condition C.3.
- (c) Visible emissions from the ash conveyor systems, transfer points, buildings, or enclosures of ash conveying systems shall not occur more than 5 percent of the time during the observation period, except during times of maintenance or repair of these systems.
- (d) The potential for dust generation by ash handling activities will be mitigated by quenching the ash prior to loading in ash transport trucks. The ash handling facilities shall be enclosed. Residue from the grates, grate siftings, and ash from the combustor/boiler and fabric filter hoppers during normal operations shall be discharged into the ash quenching system, or otherwise handled in a manner to minimize visible dust. The ash/residue in the ash handling building shall remain sufficiently moist to prevent dust during storage and handling operations.

[Rule 62-4.070(3), F.A.C., 40 CFR 60.36b and 40 CFR 60.55b]

SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

{Note: The fugitive particulate matter control requirements for the ash handling activities specified in 40 CFR 60.55b and in this permit represent RACT for this facility pursuant to the Department's authority of Rule 62-296.711(2)(c), F.A.C.}

COMPLIANCE AND PERFORMANCE TESTING

C.2 Fugitives Emissions Compliance: The compliance method for the ash handling facilities, including the ash handling building vent, shall be EPA Method 22, Visual Determination of Fugitives Emissions From Material Sources.

- (a) The minimum observation time will be three hours, and will include periods when ash is being transferred from the MWC unit to the storage area, and when ash is being loaded for disposal.
- (b) Compliance testing for the Ash Handling Building vent and ash conveyor system shall be conducted within 180 days of completion of construction and initial operation and annually thereafter.

Permanent stack testing facilities are not required for the ash handling building vent. [Rule 62-4.070(3), F.A.C., 40 CFR 60.36b and 40 CFR 60.55b]

C.3. Carbon and Lime Storage Silos PM Compliance Requirements: The PM compliance test requirements are waived for the lime and carbon storage silos and an alternate standard of 5 percent opacity shall apply. Compliance testing for the lime and carbon silos shall be conducted within 180 days of completion of construction and initial operation and annually thereafter. The visible emission tests shall be performed for each silo during filling operations using EPA Method 9. A visible emission reading greater than 5 percent opacity does not create a presumption that the emission limit (in gr/dscf) is being violated, but may require the owner or operator to perform a particulate stack test. Permanent stack testing facilities are not required for the lime and carbon silos. The owner or operator may install temporary stack sampling facilities to conduct such a test, if required. [Rule 62-297.620(4), F.A.C.]

AIR CONSTRUCTION PERMIT 0570127-002-AC, PSD-FL-086(A)

SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

SUBSECTION D. COMMON CONDITIONS:

The following specific conditions apply to the following emissions units after improvements to comply with 40 CFR 60 Subpart Cb are completed.

EMISSIONS UNIT No.	EMISSIONS UNITS DESCRIPTION
001	120 mmBtu/hr (maximum) Municipal Waste Combustor & Auxiliary Burners - Unit No. 1
002	120 mmBtu/hr (maximum) Municipal Waste Combustor & Auxiliary Burners - Unit No. 2
003	120 mmBtu/hr (maximum) Municipal Waste Combustor & Auxiliary Burners - Unit No. 3
004	120 mmBtu/hr (maximum) Municipal Waste Combustor & Auxiliary Burners - Unit No. 4
006	Ash Building and Handling System
007	Lime Silo
008	Carbon Silo

OPERATIONAL REQUIREMENTS

- D.1 These emissions units are allowed to operate continuously (8760 hours/year).
[Rule 62-210.200, F.A.C. Definitions-Potential to emit (PTE)]

- D.2. Odor Control: No objectionable odors are allowed from this facility. The truck access doors to the facility shall remain closed except during normal working shifts when MSW is being received at the storage pit area. To minimize odors at the facility, a negative pressure shall be maintained on the tipping floor and air from within the building will be used as combustion air. [Rule 62-296.320(2), F.A.C.]

- D.3 Startup/Shutdown/Malfunctions
 - (a) In order to minimize excess emissions during startup/shutdown/malfunction these emissions units shall adhere to best operational practices to minimize emissions.

The duration of excess emissions from the lime silo or the carbon silo shall be minimized but in no case exceed 2 hours per occurrence
[Rule 62-210.700, F.A.C.]

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

SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

- (c) Within 90 days prior to completion of construction of the first two units of this facility, the owner or operator shall submit to the Department's Southwest District office (DEPSWD) and the Hillsborough County Environmental Protection Commission (HCEPC) an operational procedures manual that identifies and describes best operational practices that will be used during startup, shutdown, and malfunctions of this facility.

EMISSION LIMITATIONS

- D.4 Facility Fugitive (Unconfined) Emissions: Fugitive emissions at this facility shall be adequately controlled at all times. All roads shall be adequately paved, and vacuum swept if appropriate, to minimize accumulations of ash and dust. Speed limit signs shall be posted. Unprocessed refuse storage areas which must be open for operational purposes (e.g., tipping floor or the refuse bunker while trucks are entering and leaving) shall be under negative air pressure.
[Rule 62-296.320(4)(c), F.A.C.]

COMPLIANCE AND PERFORMANCE TESTING

- D.5 Test Notification: The owner or operator shall notify the Department's Southwest District office (DEPSWD) and the Hillsborough County Environmental Protection Commission (HCEPC) in writing at least *30 days* (for the initial test) and *15 days* (for the annual tests) prior to each scheduled compliance test to allow witnessing. The notification shall include the compliance test date, place of such test, the expected test time, the facility contact person for the test, and the person or company conducting the test. The 30 or 15 day notification requirement may be waived at the discretion of the Department's Southwest District office (DEPSWD) and the Hillsborough County Environmental Protection Commission (HCEPC). Likewise, if circumstances prevent testing during the test window specified for the emissions unit, the owner or operator may request an alternate test date before the expiration of this window. [Rule 62-297.310 and 40 CFR 60.8, F.A.C.]
- D.6 Special Compliance Tests: When the Department, after investigation, has good reason (such as substantiated complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in Rule 62-204, 62-210, 62-212, 62-296 and 62-297, F.A.C. or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the facility to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions units and to provide a report on the results of said tests to the Department's

SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

Southwest District office (DEPSWD) and the Hillsborough County Environmental Protection Commission (HCEPC).

[Rule 62-297.310(7)(b), F.A.C.]

- D.7 Operating Rate During Testing: Testing of emissions shall be conducted with the emissions unit in operation at permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. See also specific conditions B.2 and B.3 of this permit for limitations related to unit load for the MWC units. Higher loads are allowed for testing purposes as specified at 40 CFR 60.53b(b) and condition B.3 of this permit.
[Rule 62-297.310(2) and (2)(b), F.A.C., and 40 CFR 53b(b)]

RECORD KEEPING AND REPORTING REQUIREMENTS

- D.8 Emission Compliance Stack Test Reports:

[Rule 62-297.310(8), F.A.C., and 40 CFR 60.59(b)(f)]

- (a) A *test report* indicating the results of the required compliance tests shall be filed with the Department's Southwest District office (DEPSWD) and the Hillsborough County Environmental Protection Commission (HCEPC) as soon as practical, but no later than 45 days after the last sampling run is completed.
- (b) The *test report* shall provide sufficient detail on the tested emissions unit and the procedures used to allow the Department to determine if the test was properly conducted and if the test results were properly computed. At a minimum, the test report shall provide the applicable information listed in Rule 62-297.310(8), F.A.C.

SCHEDULE OF COMPLIANCE

- D.9 The compliance schedule for each unit is provided below. Activities related to this project shall follow the compliance schedule.

Increment 1: Submittal of a final control plan for the designated facility to the appropriate air pollution control agency. November 13, 1998, applicable to all units.

Project: Facility Improvements
Facility ID No. 0570127
SIC: 4953

City of Tampa
McKay Bay Refuse-to-Energy Facility
Tampa, Florida

SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

Increment 2: Awarding of contracts for emission control systems or for process modifications, or issuance of orders for the purchase of component parts to accomplish emission control or process modification. July 13, 1999, applicable to all units.

Increment 3: Initiation of on-site construction or installation of emission control equipment or process change. November 13, 1999, applicable to all units.

Increment 4: Completion of on-site construction or installation of emission control equipment or process change. November 13, 2000, applicable to the first and second units. November 13, 2001, applicable to the third and fourth units. The order of the construction schedule (i.e. which units are the first and second, and third and fourth) will be identified in the final control plan.

Increment 5: Final compliance. May 13, 2002, applicable to the first and second units. May 13, 2003 applicable to the third and fourth units. The order of final compliance (i.e. which units are the first and second, and third and fourth) will be identified in the final control plan.

Closure Agreement: No later than November 13, 2000, the City will cease operation of any unit that has not completed on-site construction or installation of emission control equipment and is not involved in performance testing. After closure, said units may commence startup, shakedown and performance/compliance testing per the closure agreement. Performance/compliance tests must be completed within 180 days of startup. [Rule 62-204.800(8)9.b., F.A.C.]

APPENDIX GC
GENERAL PERMIT CONDITIONS [F.A.C. 62-4.160]

- G.1 The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
- G.2 This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings or exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
- G.3 As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey and vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
- G.4 This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
- G.5 This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
- G.6 The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
- G.7 The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:
- (a) Have access to and copy and records that must be kept under the conditions of the permit;
 - (b) Inspect the facility, equipment, practices, or operations regulated or required under this permit, and,
 - (c) Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.
- Reasonable time may depend on the nature of the concern being investigated.
- G.8 If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:
- (a) A description of and cause of non-compliance; and
 - (b) The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

APPENDIX GC
GENERAL PERMIT CONDITIONS [F.A.C. 62-4.160]

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

- G.9 In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.
- G.10 The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.
- G.11 This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
- G.12 This permit or a copy thereof shall be kept at the work site of the permitted activity.
- G.13 This permit also constitutes:
- (a) Determination of Best Available Control Technology ()
 - (b) Determination of Prevention of Significant Deterioration (); and
 - (c) Compliance with New Source Performance Standards ().
- G.14 The permittee shall comply with the following:
- (a) Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
 - (b) The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application or this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
 - (c) Records of monitoring information shall include:
 - 1. The date, exact place, and time of sampling or measurements;
 - 2. The person responsible for performing the sampling or measurements;
 - 3. The dates analyses were performed;
 - 4. The person responsible for performing the analyses;
 - 5. The analytical techniques or methods used; and
 - 6. The results of such analyses.
- G.15 When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

Florida Department of
Environmental Protection

Memorandum

TO: Howard L. Rhodes

THRU: Clair Fancy
Al Linero

FROM: Joseph Kahn

DATE: March 31, 1998

SUBJECT: Tampa McKay Bay Facility Improvements, 0570127-002-AC, PSD-FL-086(A)

Attached for approval and signature is construction permit number 0570127-002-AC / PSD-FL-086(A) for facility improvements to the City of Tampa's McKay Bay Refuse-to-Energy Facility to comply with the emission guidelines of 40 CFR 60 Subpart Cb. This construction permit (PSD permit revision) will allow the City of Tampa to: replace and improve the air pollution control system; add natural gas auxiliary burners for improved combustion control; define process throughput parameters; increase amount of waste that can be burned on a short-term basis, and specify which materials can be burned at its solid waste energy recovery facility located at 107 North 34th Street, Tampa, Hillsborough County, Florida.

A review for the Prevention of Significant Deterioration (PSD) and Best Available Control Technology determination were not required, as potential emissions will not significantly increase as a result of this project. Because of the extensive nature of physical changes allowed by this permit, and the extensive changes in the emission limits and monitoring requirements, it was issued as a revised PSD permit.

Verbal and written comments were received from the applicant's consultants and attorneys and minor changes were made to the permit as described in the final determination. No other comments were received.

I recommend your approval and signature.

Attachments

/j/

LANDERS & PARSONS, P.A.
ATTORNEYS AT LAW

CINDY L. BARTIN
DAVID S. DEE
JOSEPH W. LANDERS, JR.
JOHN T. LAVIA, III
FRED A. MCCORMACK
PHILIP S. PARSONS
ROBERT SCHEFFEL WRIGHT

HOWELL L. FERGUSON
OF COUNSEL

VICTORIA J. TSCHINKEL
SENIOR CONSULTANT
NOT A MEMBER OF THE FLORIDA BAR

RECEIVED
FEB 26 1998
BUREAU OF
AIR REGULATION

310 WEST COLLEGE AVENUE
POST OFFICE BOX 271
TALLAHASSEE, FLORIDA 32302
TELEPHONE (850) 681-0311
TELECOPY (850) 224-5595
www.landersondparsons.com

February 26, 1998

Hand Deliver

Mr. Al Linero
Department of Environmental Protection
111 South Magnolia Drive
Tallahassee, Florida

Re: McKay Bay Refuse-to-Energy Facility Improvements
Project; Draft Permit No. 05720127-002-AV; PSD-FL-086(A)

Dear Mr. Linero:

Enclosed for your files is proof of publication of the "DEP Notice of Intent to Issue Permit Modifications" with regard to the above referenced project.

If you have any questions, please call.

Sincerely,

Vickie Cantley

Vickie Cantley
Secretary to David S. Dee

CC: EPA
NPS
Hillsboro Co
SWD

THE TAMPA TRIBUNE
Published Daily
Tampa, Hillsborough County, Florida

State of Florida)
County of Hillsborough) ss.

Before the undersigned authority personally appeared J. Rosenthal, who on oath says that she is Classified Billing Manager of The Tampa Tribune, a daily newspaper published at Tampa in Hillsborough County, Florida; that the attached copy of advertisement being a

LEGAL NOTICE

In the matter of _____

PUBLIC NOTICE OF INTENT

was published in said newspaper in the issues of _____

FEBRUARY 18, 1998

Affiant further says that the said The Tampa Tribune is a newspaper published at Tampa in said Hillsborough County, Florida, and that the said newspaper has heretofore been continuously published in said Hillsborough County, Florida, each day and has been entered as second class mail matter at the post office in Tampa, in said Hillsborough County, Florida for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that she has neither paid nor promised any person, this advertisement for publication in the said newspaper.

J. Rosenthal

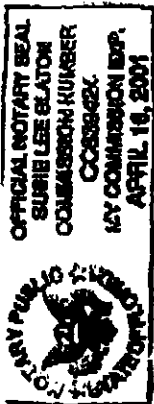
Sworn to and subscribed before me, this _____ day
of FEBRUARY, A.D. 1998

Personally Known _____ or Product Identification _____
Type of Identification Produced _____

(SEAL)

Marie Lee Blaton

TOTAL P.02




ay, February 18, 1998


Is	Legals	Legals	Legals	Legals	Legals
<p>ackages (or three ys before the bid d ending with the ids.</p> <p>BOND Guaranty of not e per cent (5%) of ud bid in the form certified check, co- k trust company check, bank draft nd/or state bank. Bid Bond made he Department of on must accom- bid in excess of A check or draft nt less than five) of the actual bid ate the bid. Bid conform to DOT 020-09 (01/96) as with the proposal</p> <p>FINANCE AND MENT BOND ance and Payment 0% of the contract d be maintained in oughout the life of 1.</p> <p>ACTIVE ACTION of Florida Depart- ortation, in ac- with the provisions of the Civil Rights (78 Stat. 252) and ons of the Depart- mmorice (15 CFR, ued pursuant to ereby notifies all It will affirm- e in any contract pursuant to this at those minority arprises will be d opportunity to in response to this ad that they will minated against nds of race, reli- color, or national sideration for an</p> <p>QUALIFIED TOR REQUIRE- MENTS must be Present</p>	<p>ing and Sealing Cocks in the High Level Approach and Main Span Columns and Su- perstructure, Dewatering of the Low Level Approach Col- umns, Some Materials Test- ing, Upgrading of the Light- ning Protection System, Elec- trical Modifications, and Oth- er Miscellaneous Work. (Approx. 168 Cal. Days). (Approx. Budget \$1,100,000.00). Plans have been prepared for this project. There is a charge of \$40.00 for plans and specifications). NOTE: Only Prequalified con- tractors may bid this project. Also see paragraph regarding 'Prequalified Contractor Re- quirements' in this Advertis- ment. Note: There Will Be a Mandatory Pre-bid Meeting Held at the Florida Depart- ment of Transportation, 11201 N. McKinley Dr., Tampa, Flor- ida 33612 in Conference Room B-1 on March 2, 1998 at 10:00 A.M. See paragraph regarding 'Mandatory Pre-Bid Meetings' in this Advertisement.</p> <p>HILLSBOROUGH COUNTY (D FUNDS FY 98/99) SPN 10002-9138; WPN 7630391; DCN E-7738. Work Consists of Mowing along the Crosstown Expressway. Approx. 365 Cal. Days). (Approx. Budget \$151,000.00). No plans have been prepared for this project. Note: There Will Be a Man- datory Pre-bid Meeting Held at the Florida Department of Transportation, 11201 N. Mc- Kinley Dr., Tampa, Florida 33612 in Conference Room B-1 on March 3, 1998 at 2:00 P.M. See paragraph regarding 'Mandatory Pre-Bid Meetings' in this Advertisement.</p> <p>PINELLAS COUNTY (D FUNDS FY 97/98) SPN 15906-9284; WPN 7612271; DCN E-7740. Work Consists of Mowing, Litter Removal, Edg- ing and Sweeping at Various Locations in Pinellas County. (Approx. 345 Cal. Days)</p>	<p>Legals</p> <p>BID POSTING Unless bidders are notified by certified mail or express deliv- ery, return receipt, the Sum- mary of Bids for these pro- jects will be posted at 2:30 P.M. (Local Time) in the Front Lobby of the District Seven Headquarters, Florida Depart- ment of Transportation, 11201 North McKinley Drive, Tam- pa, FL 33612 on Wednesday, April 1, 1998. Posting will pro- vide notice of the Depart- ment's intent to award a con- tract or to reject any or all bids.</p> <p>AWARD/NON AWARD PROTESTS Any persons who feel they are adversely affected by the intended decision of the De- partment to award a contract or to reject any or all bids shall file, with the Clerk of Agency Proceedings, Florida Depart- ment of Transportation, 605 Suwannee Street, Room 562, Tallahassee, Florida, 32399-0458, both a notice of protest and bond within 72 hours after posting the Sum- mary of Bids. If notice of in- tended decision is given by certified mail or express deliv- ery, the adversely affected person must file both the no- tice of protest and bond with- in 72 hours after receipt of the notice of intent to award. At the time of filing the notice of protest, a bond payable to the Department in the following amounts: For an action pro- testing a bid rejection or con- tract award that requires qualification of bidders, the bond shall be equal to one percent of the lowest bid sub- mitted or \$5,000, whichever is greater; For an action protest- ing a bid rejection or an award that does not require qualification of the bidders, the bond should be \$2,500. Ad- ditionally, a formal written protest must be filed within</p>	<p>Legals</p> <p>PUBLIC NOTICE OF INTENT TO ISSUE PERMIT MODIFICATION STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION DRAFT Permit No. PSD-FL-086 (A) City of Tampa McKay Bay Refuse-to-Energy Facility Hillsborough County The Department of Environ- mental Protection (Depart- ment) gives notice of its intent to issue a permit modification to the City of Tampa to re- place and improve the air pol- lution control system; add nat- ural gas auxiliary burners for improved combustion control; define process throughput pa- rameters; increase amount of waste that can be burned on a short-term basis, and specify which materials can be burned at its solid waste en- ergy recovery facility located at 107 North 34th Street, Tampa, Hillsborough County, Florida. A review for the Prevention of Significant Deterioration (PSD) and Best Available Con- trol Technology determination were not required pursuant to Rule 62-212.400 and 410., F.A.C. The applicant's name and address are: City of Tam- pa, 306 E. Jockson Street, Tampa, Florida 33602.</p> <p>The purpose of the project is to comply with 40 CFR 60, Support Co - Emission Guide- line and Compliance Times for Municipal Waste Combustors That Are Constructed on or Before December 19, 1995. The Emission Guideline was developed pursuant to Section 129 (Solid Waste Combustion) of the Clean Air Act as amended in 1990. These re- quirements are incorporated in Department Rule 62- 204.800(8), F.A.C.</p> <p>The facility consists of four nominal 250 ton per day (TPD) mass burn furnaces with inte-</p>	<p>Legals</p> <p>and certain types of floor cov- ering; segregated waste tires (not to exceed 3 percent of the total wastes received); other segregated wastes (not to ex- ceed 3 percent of the total wastes received) such as con- struction and demolition de- bris, all soil debris, expired or off-spec packaged or un-pack- aged consumable goods (e.g. pharmaceuticals), consumer products, waste materials containing oil, used oil and fil- ters and certain other wastes similar to MSW. The precise nature of the wastes is de- tailed in the draft permit package. By limiting the amount of segregated material combusted at the facility, the Department has reason- able assurance that the over- all composition of the wastes burned will be within the typ- ical characteristics of MSW in terms of heating value, mois- ture, ash, and emissions char- acteristics.</p> <p>Presently, the permitted waste throughput is 1000 TPD for the facility on an average annualized basis. The maxi- mum allowable heat input per unit will be limited to 120 mMBtu/hr at a daily waste throughput of 288 TPD (1,152 TPD for the facility), with a long-term limit of 250 TPD for each unit.</p> <p>The Department will issue the FINAL Permit Modifica- tion, in accordance with the conditions of the DRAFT Per- mit Modification unless a re- sponse received in accor- dance with the following pro- cedures results in a different decision or significant change of terms or conditions.</p> <p>The Department will accept written comments concerning the proposed DRAFT Permit Modification Issuance action for a period of 30 (thirty) days from the date of publication of this Notice. Written comments should be provided to the De-</p>	<p>Legals</p> <p>in compliance with Rule 28- 5.207 of the Florida Adminis- trative Code.</p> <p>A petition must contain the following information: (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Permit File Number and the county in which the pro- ject is proposed; (b) A state- ment of how and when each petitioner received notice of the Department's action or proposed action; (c) A state- ment of how each petitioner's substantial interests are af- fected by the Department's action or proposed action; (d) A statement of the material facts disputed by petitioner, if any; (e) A statement of the facts that the petitioner con- tends warrant reversal or modification of the Depart- ment's action or proposed ac- tion; (f) A statement identify- ing the rules or statutes that the petitioner contends re- quire reversal or modification of the Department's action or proposed action; and (g) A statement of the relief sought by the petitioner, stating pre- cisely the action that the pe- titioner wants the Department to take with respect to the Department's action or pro- posed action addressed in this notice of intent.</p> <p>Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice of intent. Persons whose substantial interests will be affected by any such final decision of the Depart- ment on the application have the right to petition to become a party to the proceeding, in accordance with the require- ments set forth above.</p> <p>A complete project file is available for public inspection</p>

Memorandum

Florida Department of Environmental Protection

TO: Alice H. Harmon
Via Fax 813-272-5605

THRU: Joe Kahn, P.E. 

FROM: Susan DeVore 

DATE: January 12, 1998

RE: City of Tampa - McKay Bay Refuse-to-Energy Facility (MBREF)
0570127-002-AC

Thanks for your comments. As we understand, one main issue, the definition of municipal solid waste, still remains unclarified and of significant concern to the EPC. EPC suggests that the permit be specific in defining what is allowed or not allowed to be burned and the origin of the waste. The Department intends that the permit specify what is allowed or not allowed to be burned. We are working with MBREF to more specifically identify the types of wastes to be burned. There appears to be no emissions increase resulting from the addition and clarification of the types of waste allowed to be burned at MBREF.

The new fuels proposed by MBREF are similar in nature to the old and many are essentially the same types of waste as municipal solid waste. Subparts Cb and Eb are not intended to limit the waste burned to solely MSW. In fact, EPA makes this quite clear in the MWC NSPS background information document. In response to a comment regarding combustion of industrial wastes, EPA writes:

The definition of MSW is intended to specify which types of waste trigger a combustion facility to be covered under the MWC rule. The definition of MSW does not define, as the commenters claim, limits to the types of waste that an MWC can combust. Nowhere is it stated in the rule that there is any limit on the type of waste an MWC can combust. In fact, the definition of "cofired combustor" specifically states that a unit combusting more than 30 percent MSW is an MWC. An MWC is not prohibited under this rule from combusting non-MSW items such as railroad ties, telephone poles, or industrial manufacturing wastes.

Therefore, we intend to add and clarify the waste types allowed to be burned, consistent with the approach that emissions should not increase because of the addition of waste types.

The definition of modification pursuant to 40 CFR 60.2 includes any physical change in, change in the method of operation of, an existing facility *which increases the amount of any air pollutant emitted* into the atmosphere by that facility. As EPC pointed out there is a change in operation related to the expansion of waste types, but that change alone does not result in an increase in the actual emissions of any air pollutant, so in this case that expansion of waste types is not a modification. Since it is not a modification, it does not trigger a PSD review.

We appreciate the comments and input from EPC on this facility. If there are any further concerns, please do not hesitate to contact me at 850/488-1344.

P.E. Certification Statement

City of Tampa
McKay Bay Refuse-to-Energy Facility

Permit No.: 0570127-002-AC
PSD Permit No.: PSD-FL-086(A)
Facility ID No.: 0570127

Project Type: Draft Air Construction Permit
Facility Improvements

Project Description:

Facility improvements to substantially replace or rebuild the existing municipal waste combustion facility. This retrofit project will upgrade the existing four mass-burn combustion units to achieve greater combustion control and improve combustion efficiency, as well as replace air pollution control equipment, to comply with the emission limits and monitoring requirements of the Federal emission guidelines for large municipal waste combustors, 40 CFR 60 Subpart Cb.

I HEREBY CERTIFY that the engineering features described in the above referenced application and related additional information submittals, if any, and subject to the proposed permit conditions, provide reasonable assurance of compliance with applicable provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 62-4 and 62-204 through 62-297. However, I have not evaluated and I do not certify aspects of the proposal outside of my area of expertise (including but not limited to the electrical, mechanical, structural, hydrological, and geological features).

This review was conducted by myself and Susan DeVore under my responsible supervision.

(Seal)



Joseph Kahn, P.E.

2/4/98

Date

Permitting Authority:

Florida Department of Environmental Protection
Division of Air Resources Management
Bureau of Air Regulation
Title V Section
Mail Station #5505
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Telephone: 850/488-1344
Fax: 850/922-6979

Florida Department of
Environmental Protection

Memorandum

To: Al Linero, P.E. *aal*
From: Joe Kahn, P.E. *JK*
Date: January 12, 1998
Re: City of Tampa McKay Bay, Emission Guidelines Retrofit, PSD Applicability

Per our meeting this morning and later discussion with Dan Strobridge of CDM, the following summarizes emissions for this project, and specifies the limits that will be imposed to avoid PSD applicability.

The facility currently has four operating mass-burn combustion units, each with a nominal capacity of 250 tons per day of solid waste with a heat content of 5000 Btu/lb. The facility produces steam which is used to produce electricity. The generator nameplate rating is 22.5 MW for the entire facility. Currently, each unit has a reciprocating grate furnace coupled to a rotary kiln, a waste heat boiler, an ESP and ash handling facilities. The proposed project will consist of extensive physical changes. The applicant proposes to replace each unit with a new mass-burn furnace, additional or completely new boiler components, new ash handling facilities, and new APC equipment. The applicant also proposes to change the capacity basis from TPD of solid waste (specified only in the current AO permit) to steam production to match the requirements of the emission guidelines, and allow for operation within an operating window that will account for variation in the heating value of the incoming solid waste.

As we discussed, we will draft the permit to maintain the short term emission limits from the emission guideline or more stringent short term limits proposed by the applicant, and we will include rolling 12-month total emission limits for sulfur dioxide, NOx and CO that will avoid this project triggering a review under PSD.

Pollutant	Past Allowable Annual Emissions (TPY)	Past Actual Annual Emissions 5 yr. Avg. (TPY)	Proposed Allowable Annual Emissions (TPY)	Difference Past Actual - Prop. Allow. (TPY)	Proposed Allowable Emission Rate ⁽⁴⁾ (lb./hr)
PM	122	43	49	6	11.19
SO ₂	745	421 ⁽¹⁾	460 ⁽⁵⁾	39	163.47
NO _x	1314	640 ⁽²⁾	679 ⁽⁵⁾	39	160.50
CO	no limit	87 ⁽⁶⁾	185 ⁽⁵⁾	98	47.72
VOC	39	7.7	no limit	---	no limit
Pb	14	1.07	0.788	<13>	0.18
Hg	3	0.6	0.243 (max. conc. limit)	<0.36>	0.055
Cd	no limit	0.097	0.073	<0.02>	1.67 E-2
Be	0.002	0.0001	0.002	0 ⁽³⁾	4.57 E-4
HCl	no limit	na	209 (max. conc. limit)	---	47.7
HF	26	na	26	---	5.9
Dioxin	no limit	na	5.37 E-5	---	1.21 E-5

Footnotes to table:

- (1) Average of last two years available data (1990 and 1991) is 421 TPY.
- (2) Average of last two years available data (1990 and 1991) is 633 TPY.
- (3) A review of the Beryllium test data (1985, 1991) suggests that tested emissions were below detection limits. Given the limited data, the short test duration and the low annual emission limits, a valid comparison of actual versus potential emissions is not possible. The proposed permit limit will therefore be set at the previous allowable.
- (4) Proposed allowable emission rates are the lb./hr equivalent emission rate of the Subpart Cb emission limitations or more stringent limitations requested by the applicant. Emissions of sulfur dioxide, NO_x and CO are further limited by the longer-term rolling 12 month limitations (see footnote (5), below).
- (5) Rolling 12 month emission limits will be imposed for sulfur dioxide, NO_x and CO to maintain annual emissions below PSD significance levels.
- (6) Based on one test, 1985



G. Gray

Department of Environmental Protection

Lawton Chiles
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

RECEIVED
JUN 20 1994

Wetherell
Secretary

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION NOTICE OF PERMIT AMENDMENT

CERTIFIED MAIL

Ms. Nancy McCann
Urban Environmental Coordinator
Office of Environmental Coordination
City of Tampa
City Hall Plaza, 5N
Tampa, FL 33602

DER File No.: A029-206279
County: Hillsborough

Enclosed is amended Permit Number A029-206279 to operate the McKay Bay Refuse-to-Energy facility, issued pursuant to Section 403.087, Florida Statutes.

A person whose substantial interests are affected by this amended permit may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee 32399-2400, within fourteen (14) days of receipt of this amended permit. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

The Petition shall contain the following information:

- (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;
- (b) A statement of how and when each petitioner received notice of the Department's action or proposed action;
- (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;
- (d) A statement of the material facts disputed by petitioner, if any;
- (e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;

(f) A statement of which rules or statutes petitioner contends required reversal or modification of the Department's action or proposed action; and

(g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this amended permit. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of receipt of this notice, in the Office of General Counsel at the above address of the Department. Failure to petition within the allotted time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

This amended permit is final and effective on the date filed with the Clerk of the Department unless a petition is filed in accordance with the above paragraphs or unless a request for extension of time in which to file a petition is filed within the time specified for filing a petition and conforms to Rule 17-103.070, F.A.C. Upon timely filing of a petition or a request for an extension of time this permit will not be effective until further Order of the Department.

When the Order (amended Permit) is final, any party to the Order has the right to seek judicial review of the Order pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date the Final Order is filed with the Clerk of the Department.

City of Tampa
Tampa, FL 33602

Page Three

Executed in Tampa, Florida

Sincerely,


Gerald J. Kissel, P.E.
District Air Engineer

GJK/SKW/bm

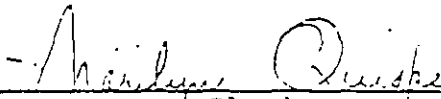
Attachment:

cc: Environmental Protection Commission
of Hillsborough County

CERTIFICATE OF SERVICE

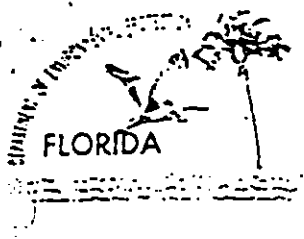
This is to certify that this NOTICE OF PERMIT AMENDMENT and all copies were mailed by certified mail before the close of business on JUN 17 1994 to the listed persons.

FILING AND ACKNOWLEDGEMENT FILED, on this date, pursuant to Section 120.52(11), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.



Clerk

JUN 17 1994
Date



Department of Environmental Protection

Lawton Chiles
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

Virginia B. Wetherell
Secretary

PERMITTEE:
City of Tampa
City Hall Plaza, 5N
Tampa, FL 33602

PERMIT/CERTIFICATION
Permit No: AO29-206279
County: Hillsborough
Issuance Date: 9/1/92
Amendment Date: 06/17/94
Expiration Date: 08/01/97
Project: McKay Bay Refuse-to-
Energy Facility

This amended permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rules 17-2 and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans and other documents, attached hereto or on file with the department and made a part of hereof and specifically described as follows:

For the operation of four (4) 250 TPD municipal solid waste incinerators designated as Units 1, 2, 3, and 4, respectively, from west to east. Municipal Solid Waste includes any solid waste, except for sludge, resulting from the operation of residential, commercial, governmental, or institutional establishments that would normally be collected, processed, and disposed of through a public or private solid waste management service. The term includes yard trash, but does not include solid waste from industrial, mining, or agricultural operations. Waste tires and waste oil may be incinerated under certain limitations and restrictions specified in the Specific Conditions.

Each incinerator is equipped with a 37,500 dscfm F.L. Smidth, Model F300, 2-field electrostatic precipitator to control particulate matter emissions. Units 1 and 2 share the same stack exhaust. Units 3 and 4 share the same stack exhaust. Each stack exhaust is equipped with a certified opacity monitor.

Fly ash collected by the electrostatic precipitator is pneumatically conveyed to the fly ash silo and then gravity fed onto the bottom ash drag conveyor where it is wetted. The ash handling system is designed to load the ash into tarped open bed trucks, via front-end loader, after dewatering. Particulate matter emissions generated during fly ash silo loading are controlled by a Flex-Kleen, Model BVBC-36 (IIG) 2109 ACFM baghouse. Fugitive emissions are controlled by the use of water as a dust suppressant.

Location: 107 North 34th Street, Adjacent to McKay Bay, Tampa

PERMITTEE:
City of Tampa

PERMIT/CERTIFICATION NO.: AO29-206279
PROJECT: McKay Bay Refuse-to-Energy
Facility

PROCESS DESCRIPTION: (continued)

UTM: 17-360.0 E 3091.9 N NEDS NO: 0127 Point ID: 01 - Unit
No. 1
02 - Unit
No. 2
03 - Unit
No. 3
04 - Unit
No. 4
05 - Fly Ash
Silo

Replaces Permit No.: AO29-114760

PERMITTEE:
City of Tampa

PERMIT/CERTIFICATION NO.: AO29-206279
PROJECT: McKay Bay Refuse-to-Energy
Facility

SPECIFIC CONDITIONS:

1. A part of this permit is the attached 15 General Conditions.
2. Maximum allowable emissions from the following sources shall not exceed [PSD-FL-086 and AC29-47277 and Rule 17-4.070(3), F.A.C.]

<u>Source</u>	<u>Pollutant</u>	<u>Emission Limitation</u>
Combined Units 1-4	Particulate Matter	0.025 gr/DSCF, corrected to 12% CO ₂ and 27.9 lbs./hr.
	Sulfur Dioxide	170.0 lbs./hr.
	Nitrogen Oxides	300.0 lbs./hr.
	VOC	9.0 lbs./hr.
	Lead	3.1 lbs./hr.
	Fluoride	6.0 lbs./hr.
	Mercury (vaporous and particulate)	0.6 lbs./hr.
	Beryllium	5 grams/24 hour period and 0.00046 lbs./hr.
Fly Ash Silo	Particulate Matter	0.025 gr/DSCF, up to 0.36 lbs./hr.

3. Visible emissions shall not exceed the following, except as noted in Specific Condition No. 4: [AC29-47277, Rule 17-2.510(8)(d)2., F.A.C. and Rule 17-2.650(2)(c)11., F.A.C.]

<u>Source</u>	<u>Emission Limitation</u>
Units 1-2 (West Stack)	15%
Units 3-4 (East Stack)	15%
Fly Ash Silo	5%

4. Excess emissions resulting from start-up, shutdown or malfunction of any unit shall be limited to a total of 2 hours in any 24 hour period provided best operational practices are adhered to and the duration of excess emissions are minimized. Best operational practices shall include but are not limited to: [Rule 17-2.250(1), F.A.C.]

- A) Using the least pollution causing material available on site to charge the furnace on start-up.
- B) Turning on the electrostatic precipitator as soon as possible but no later than two hours after the furnace is ignited.

The permittee shall maintain a log detailing the following information on every start-up of a unit:

- A) Time (to the nearest minute) at which the furnace is ignited.
- B) Time (to the nearest minute) at which the electrostatic precipitator is turned on and operational.

PERMITTEE:
City of Tampa

PERMIT/CERTIFICATION NO.: A029-206279
PROJECT: McKay Bay Refuse-to-Energy
Facility

SPECIFIC CONDITIONS:

- C) Temperature of the flue gas at the electrostatic precipitator inlet when it is turned on.
- D) Six minute opacity reading taken from the opacity monitor strip chart beginning at two hours following the ignition of the furnace.

5. This permit authorizes the permittee to incinerate municipal solid waste, as defined in the project description, and waste oil from spills cleaned up by the Port Authority. The municipal solid waste may be generated outside the city limits. It may include waste tires as they are collected as part of the normal waste stream (not segregated) and do not exceed more than 3% of the total charge at any given time. The waste oil can not exceed 10,000 gallons per day from tanker trucks or 10 tons per day from fiber drums. No other materials, to include water treatment plant sludges, biomedical waste, radiological waste or hazardous waste, are to be incinerated at this facility. [PSD-FL-086, AC29-47277 and Rule 17-4.070(3), F.A.C.]

6. No auxiliary fuels or segregated materials other than those normally contained in MSW are to be used to raise the BTU content unless prior authorization is received from the Florida Department of Environmental Protection and the Environmental Protection Commission of Hillsborough County. [Rule 17-4.070(3), F.A.C.]

7. The permittee shall not cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor. [Rule 17-2.620(2), F.A.C.]

8. Test the emissions from each unit for the following pollutant(s) at intervals of 12 months (\pm 30 days) from October 29, 1991 and submit 2 copies of test data to the Air Section of the Environmental Protection Commission of Hillsborough County office within forty-five days of such testing. Testing of all four units for each pollutant shall be conducted in a consecutive five day period (except that the EPC may extend the five day test period when required by conditions beyond the control of the permittee) and shall be consistent with the requirements of Rule 17-2.700(2), F.A.C.:

- (X) Particulates (X) Lead
- (X) Opacity

* The visible emissions readings on each of the two stacks shall be at least 60 minutes in duration and shall be conducted simultaneously with the particulate testing. Both units which share a common stack shall be in operation during the visible emission test.

PERMITTEE:
City of Tampa

PERMIT/CERTIFICATION NO.: A029-206279
PROJECT: McKay Bay Refuse-to-Energy
Facility

SPECIFIC CONDITIONS: (continued)

9. Test the emissions from each unit for the following pollutant(s) six months prior to the expiration date of this permit and submit 2 copies of test data to the Air Section of the Environmental Protection Commission of Hillsborough County within forty-five days of such testing. Testing of all four units for each pollutant shall be conducted within a consecutive five day period (except that the EPC may extend the five day test period when required by conditions beyond the control of the permittee) and shall be consistent with the requirements of Rule 17-2.700(2), F.A.C.:

<input checked="" type="checkbox"/> Volatile Organic Compounds	<input checked="" type="checkbox"/> Total Fluorides
<input checked="" type="checkbox"/> Mercury	<input checked="" type="checkbox"/> Beryllium
<input checked="" type="checkbox"/> Nitrogen Oxides	<input checked="" type="checkbox"/> Sulfur Dioxide

10. Test the emissions from the fly ash silo for the following pollutant(s) at intervals of 12 months (\pm 30 days) from October 29, 1991 and submit 2 copies of test data to the Air Section of the Environmental Protection Commission of Hillsborough County office within forty-five days of such testing. Testing procedures shall be consistent with the requirements of Rule 17-2.700(2), F.A.C.:

Particulates
 Opacity

* In lieu of a stack test, the permittee may submit an EPA Method 9 testing showing no visible emissions pursuant to Rule 17-2.700(3)(d), F.A.C., except upon permit renewal. Upon permit renewal the EPA Method 9 test may not be substituted for the stack test. The Method 9 test interval shall be at least 60 minutes in duration on the fly ash silo. Should the Department have reason to believe the particulate emission standard is not being met, the Department may require that compliance with the particulate emission standards be demonstrated by testing in accordance with Rule 17-2.700, F.A.C.

11. The permittee shall notify the Air Compliance Section of the Environmental Protection Commission of Hillsborough County at least 15 days prior to the date on which each formal compliance test is to begin of the date, time, and place of each such test, and the contact person who will be responsible for coordinating and having such test conducted. [Rules 17-297.340(1)(i) and 17-209.500, F.A.C.]

12. Compliance with the emission limitations of Specific Condition Nos. 2 and 3 shall be determined using EPA Methods 1, 2, 3, 5, 6, 7, 9, 12, 13A/13B, 25A/25B, 101A and 104 contained in 40 CFR 60, Appendix A and adopted by reference in Rule 17-2.700, F.A.C. The minimum requirements for stack sampling facilities, source sampling and reporting, shall be in accordance with Rule 17-2.700, F.A.C. and 40 CFR 60, Appendix A.

PERMITTEE:
City of Tampa

PERMIT/CERTIFICATION NO.: AO;
PROJECT: McKay Bay Refuse-to-
Facility

SPECIFIC CONDITIONS: (continued)

13. Testing of emissions shall be conducted within 90-100% of the maximum permitted charging rate of 10.5 tons/hr. for each unit and all four (4) units in operation for the fly ash silo testing. A compliance test submitted at operating levels less than 90% of the maximum permitted rate will automatically constitute an amended permit at the lesser rate plus 10% until another test (showing compliance) at a higher rate, not to exceed 10.5 tons/hr., is submitted to the Department and the Environmental Protection Commission of Hillsborough County. Acceptance of said tests by the Department and the Environmental Protection Commission of Hillsborough County will constitute an amended permit at the greater rate. The rates are not to exceed the maximum permitted rates. Emission limitations are not automatically adjusted above the allowables established by this permit and/or the maximum permitted rate. Failure to submit the charging rates during testing which do not reflect actual operating conditions may invalidate the data. [Rule 17-4.070(3), F.A.C.]

14. Operation and Maintenance Plan for Particulate Control: [Rule 17-2.650(2), F.A.C.]

A) Process Parameters:

1. Source Designators: Unit Nos. 1-4
2. Maximum Charging Rate: 250 tons per day per unit,
1000 tons per day total
3. Maximum Heat Input Rate: 2,500 MMBTU/day/line,
10,000 MMBTU/day total
4. Permitted Operating Schedule: 24 hrs./day, 7 days/wk.,
52 wks./yr.
5. Furnace Temperature: 1800-2400° F.
6. Fuel Type: Unsorted Municipal Solid Waste
7. Design Fuel Analysis: Carbon-25.6%, Nitrogen-0.58%,
Hydrogen-3.7%, Sulfur-0.3%,
Oxygen-22.75%, Moisture-30.0%,
Non-combustibles-18.0%
8. Combustion Conditions: 50-120% excess air
7-11% O₂ in flue gas
9. Steam Pressure: 650 psig at turbine inlet
10. Steam Temperature: 700° F. at turbine inlet
11. Steam Production: 208,400 lbs./hr. total normal flow rate
12. Maximum Permitted Electric Output: 25 MW

B) Pollution Control Equipment Parameters:

1. Control Equipment Type: 4 Electrostatic Precipitators
2. Model Name and Number: F.L. Smidth Model F300
3. Design Flow Rate: 37,500 dscfm/line, 75,000 dscfm/stack
4. Primary Voltage: 480V
5. Primary Current: 89A

PERMITTEE:
City of Tampa

PERMIT/CERTIFICATION NO.: AO29-206279
PROJECT: McKay Bay Refuse-to-Energy
Facility

SPECIFIC CONDITIONS: (continued)

6. Secondary Voltage: 25,000-45,000 VDC
7. Secondary Current: 800 mA
8. Design Collection Efficiency: 99.45%
9. Stack Height Above Ground: 160 ft./stack
10. Stack Diameter: 5.75 ft. each stack
11. Exit Gas Temperature: 450-600° F. each stack
12. Exit Gas Moisture: 14%

- C) The following observations, checks and operations apply to this source and shall be conducted on the schedule specified:

Continuously Monitored

1. Opacity
2. Temperatures^{*}
 - a. ESP Inlet and Outlet
 - b. Furnace
 - c. Bypass
 - d. Kiln Outlet
 - e. Secondary Superheater Outlet Steam

- * Monitored every 5 seconds and a summed average is recorded every hour.

Every Four Hours

1. Monitor/inspect fly ash removal equipment and handling system
2. Observe fly ash silo operation, if unit is in operation
3. Primary voltage (ESP)
4. Primary current (ESP)
5. Secondary voltage (ESP)
6. Secondary current (ESP)

Daily

1. Monitor T/R temperature (ESP)
2. Monitor hours of operation per line

Weekly

1. Check lubrication on all external bearings, chains, idlers, sprockets
2. Lubricate fly ash collecting equipment, as needed
3. Spark rate
4. Rapper frequency
5. Rapper duration
6. Check gear box reservoir oil levels

PERMITTEE:
City of Tampa

PERMIT/CERTIFICATION NO.: A029-206279
PROJECT: McKay Bay Refuse-to-Energy
Facility

SPECIFIC CONDITIONS: (continued)

Semi-Annually (during maintenance outages)

1. Inspect precipitators internals; observe dust build-up, corrosion
2. Check alignment of plates and electrodes
3. Inspect rappers, observe for cracking on rapper frame assembly
4. Clean rapper insulator bushing
5. Clean electrode bushings
6. Check screw conveyor bearings
7. Inspect all field connections, door frames, duct connections for corrosion
8. Replace door frame gaskets as needed.
9. Inspect internal structural members for corrosion and integrity
10. Clean relay cabinets, clean motor starter and relay contacts
11. Check hopper heaters for proper operation
12. Check insulator housing heaters for proper operation
13. Lubricate key interlock system

Annually

1. Hoppers and inlet distribution baffles are visually checked for wear
2. Wire thickness is checked visually
3. Check precipitator earth ground connection
4. Inspect collection plates for corrosion
5. Check external structural members for integrity
6. Run T/R oil analysis

D) Records:

Records of inspections, maintenance, and performance parameters shall be retained for a minimum of two years and shall be made available to the Department or Environmental Protection Commission of Hillsborough County upon request. [Rule 17-2.650(2)(g)5., F.A.C.]

15. The permittee shall calibrate, operate and maintain a continuous monitoring system in accordance with Rule 17-2.710(1), F.A.C. to monitor in-stack opacity.

16. The permittee shall record and keep on file the daily charging rate and hours of operation of each unit and report this information quarterly to the Environmental Protection Commission of Hillsborough County. [40 CFR 60.53(a) and PSD-FL-086]

PERMITTEE:
City of Tampa

PERMIT/CERTIFICATION NO.: AO29-206279
PROJECT: McKay Bay Refuse-to-Energy
Facility

SPECIFIC CONDITIONS: (continued)

21. An application for renewal of permit to operate this source, completed in quadruplicate, shall be submitted to the Department and a copy to the Environmental Protection Commission of Hillsborough County at least 60 days prior to its expiration date. [Rule 17-4.090, F.A.C.]

STATE OF FLORIDA DEPARTMENT OF
ENVIRONMENTAL REGULATION

for *H. J. Kiesel, P.E.*
Richard Garrity, Ph.D.
Director of District Management

ATTACHMENT - GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.141, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in Subsections 403.087(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:

GENERAL CONDITIONS:

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

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

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

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

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

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

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

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 17-4.120 and 17-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

GENERAL CONDITIONS:

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

13. This permit also constitutes:

- () Determination of Best Available Control Technology (BACT)
- () Determination of Prevention of Significant Deterioration (PSD)
- () Compliance with New Source Performance Standards (NSPS)

14. The permittee shall comply with the following:

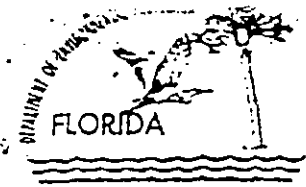
a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.

b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

c. Records of monitoring information shall include:

- the date, exact place, and time of sampling or measurements;
- the person responsible for performing the sampling or measurements;
- the dates analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

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

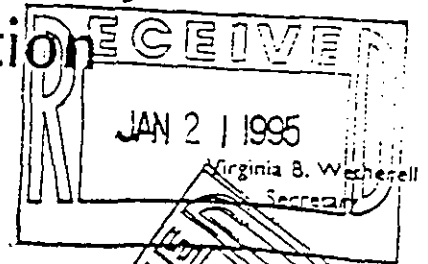


Department of Environmental Protection

REC'D
-21-10-94

Lawton Chiles
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

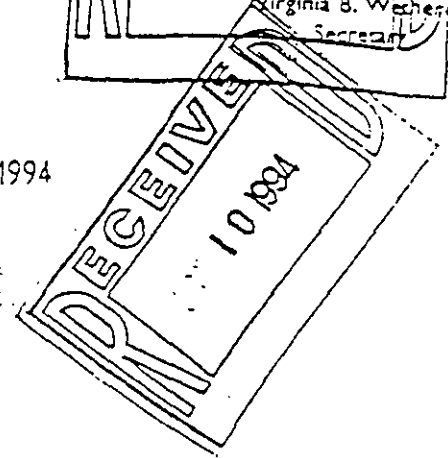


NOTICE OF PERMIT

OCT - 6 1994

Ms. Nancy McCann
Environmental Coordinator
City of Tampa
City Hall Plaza, 5N
Tampa, Florida 33602

FOR YOUR INFORMATION
Nancy McCann



Dear Ms. McCann:

Enclosed is the modification #256823 to existing Permit Number SO29-204205, issued pursuant to Section(s) 403.087(1), Florida Statutes.

Persons whose substantial interests are affected by this permit have a right, pursuant to Section 120.57, Florida Statutes, to petition for an administrative determination (hearing) on it. The petition must conform to the requirements of Chapters 17-103 and 28-5.201, F.A.C., and must be filed (received) in the Department's Office of General Counsel, 2600 Blair Stone Road, Tallahassee, 32399-2400, within fourteen (14) days of receipt of this notice. Failure to file a petition within fourteen (14) days constitutes a waiver of any right such person has to an administrative determination (hearing) pursuant to Section 120.57, Florida Statutes. This permit is final and effective on the date filed with the Clerk of the Department unless a request for extension of time in which to file a petition is filed within the time specified for filing a petition and conforms to Rule 17-103.070, F.A.C. Upon timely filing of a petition or a request for an extension of time this permit will not be effective until further Order of the Department.

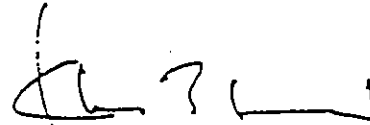
When the Order (Permit) is final, any party to the Department has the right to seek judicial review of the Order pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 2600 Blair Stone Road, Tallahassee, 32399-2400; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date the Final Order is filed with the Clerk of the Department.

Ms. Nancy McCann
City of Tampa
Permit No.: S029-204205

OCT - 6 1994
Page Two

Executed in Tampa Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION



Kim B. Ford, P.E.
Solid Waste Section
Division of Waste Management

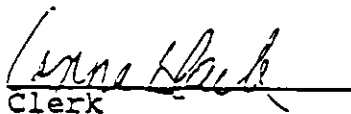
KBF/ab
Attachment

cc: Greig Grotecloss, City of Tampa
Paul Schipfer, RCEPC
Kathy Anderson, FDEP Tallahassee
Robert Butera, P.E., FDEP Tampa
Steve Morgan, FDEP Tampa

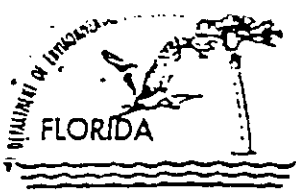
CERTIFICATE OF SERVICE

This is to certify that this NOTICE OF PERMIT and all copies were mailed before the close of business on OCT - 6 1994 to the listed persons.

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to §120.52(10), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.


Clerk

OCT - 6 1994
Date



Department of Environmental Protection

Lawton Chiles
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

Virginia B. Wetherell
Secretary

OCT - 6 1994

PERMITTEE

Ms. Nancy McCann
Environmental Coordinator
City of Tampa
City Hall Plaza, 5N
Tampa, Florida 33602

RE: Modification to existing permit
Permit No. SO29-204205, Hillsborough County
McKay Bay Refuse-to-Energy Facility

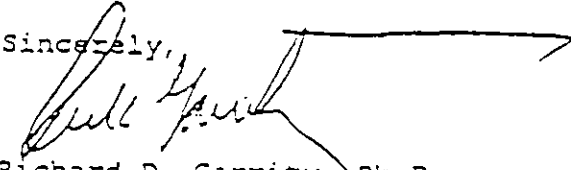
Dear Ms. McCann:

We are in receipt of the City of Tampa's August 29, 1994 request for permit modification #256823 to modify the solid waste permit #SO29-204205.

<u>SPECIFIC CONDITIONS</u>	<u>FROM</u>	<u>TO</u>	<u>TYPE OF MODIFICATION</u>
#13.		New	Ash Conditioning System

This letter and its attachments constitute a complete permit and replace all previous permits and permit modifications for the above referenced facility.

Sincerely,


Richard D. Garrity, Ph.D.
Director of District Management
Southwest District

RDG/kbfb
Attachments

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241



BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

November 7, 1986

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Ms. Nancy McCann
Urban Environmental Coordinator
Office of Environmental Coordination
City Hall Plaza, 5N
Tampa, Florida 33602

Dear Ms. McCann:

Re: Amendment to Construction Permit AC 29-47277 *Mickey Bay Refinery*

The department is in receipt of your request to amend the above referenced state construction permit to reflect the "as built" construction of the facility. The amendment to the permit allows for the construction of a flyash storage silo. Particulate matter emissions will be controlled by use of a baghouse filter and are in accordance with the department's determination of Lowest Achievable Emission Rate for particulate matter. The department is in agreement with the request and the following shall be added or changed:

Expiration Date:

From: April 30, 1986
To: December 31, 1986

Specific Conditions:

9. Particulate matter emissions from the flyash storage silo shall not exceed 0.025 grains per dry standard cubic foot or 0.36 pound per hour based on a maximum flow rate of 2109 acfm.
10. Visible emissions from the flyash storage silo shall not exceed 5% opacity. Compliance with this limit shall be demonstrated by DER Method 9 in accordance with the requirements of section 17-2.700, FAC.
11. The permittee shall provide HCEPC and SWFDER at least 30 days advanced written notice of the startup date of the flyash storage silo.

SENDER'S Completion Form 2, 3 and 4

At your expense in the RETURN TO: place on the envelope a return address to which the mail from this receipt should be returned to you. The return receipt will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Complete instructions for use and check box(es) (checkmark) (initials)

A. Show to store, and the address of delivery.

B. Return to Office

NAME AND ADDRESS OF ADDRESSEE
Ms. Nancy McCann
Urban Environmental Coord.
City Hall Plaza, 5N
Tampa, Florida 33602

A. Type of Service: **Article Number**

Registered Insured
 Certified COD
 Express Mail

P 408 532 060

Always obtain signature of addressee or agent and DATE DELIVERED.

B. Signature of Addressee
 X

C. Signature of Agent
[Signature]

Date
NOV 11 1986

D. Addressee's Address (ONLY if requested and fee paid)

DOMESTIC RETURN RECEIPT

P 408 532 060

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
 NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to Ms. Nancy McCann	
Street and No.	
P.O., State and ZIP Code	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to whom and Date Delivered	
Return Receipt Showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	\$
Postmark or Date	
11/12/86	

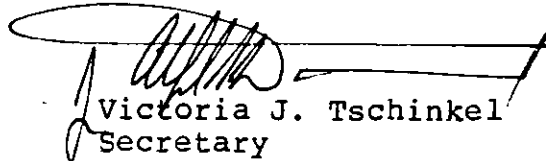
PS Form 3800, Feb. 1982

Ms. Nancy McCann
Page Two
November 7, 1986

12. The visible emissions tests for the flyash storage silo must be accomplished within 5 days of startup of the silo.
13. Should HCEPC or the Department have reason to believe the particulate emission standard is not being met, HCEPC or the Department may require that compliance with the particulate emission standards be demonstrated by testing in accordance with EPA Methods 1, 2, 3, 4, and 5.
14. Within 45 days of initial compliance testing of the source, test results along with 4 copies of a completed Certificate of Completion of Construction form shall be submitted to the HCEPC.

This letter must be attached to your construction permit, AC 29-47277, and shall become a part of that permit.

Sincerely,

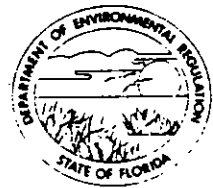


Victoria J. Tschinkel
Secretary

VJT/ks

cc: Bill Thomas, SW District
Victor San Augustin, HCEPC

State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION



Interoffice Memorandum

FOR ROUTING TO OTHER THAN THE ADDRESSEE

To: _____ LOCTN: _____
To: _____ LOCTN: _____
To: _____ LOCTN: _____
FROM: _____ DATE: _____

TO: Victoria J. Tschinkel
FROM: Clair Fancy *John Brown for*
DATE: November 7, 1986
SUBJ: Amendment to Construction Permit AC 29-47277

Attached for your approval and signature is a letter amending the above referenced air construction permit to the City of Tampa. The bureau recommends your approval and signature.

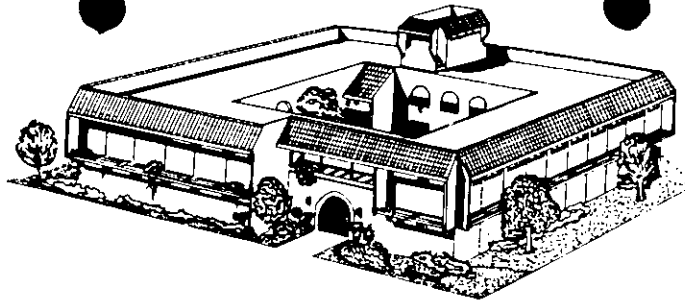
CF/pa

Attachment

HILLSBOROUGH COUNTY
ENVIRONMENTAL PROTECTION

COMMISSION

RODNEY COLSON
RON GLICKMAN
PAM IORIO
RUBIN E. PADGETT
JAN KAMINIS PLATT
JAMES D. SELVEY
PICKENS C. TALLEY II



ROGER P. STEWART
DIRECTOR

1900 - 9th AVE
TAMPA, FLORIDA 33605

TELEPHONE (813) 272-5960

MEMORANDUM

Date October 22, 1986

To Clair Fancy, BAQM

From Victor San Agustin thru Jerry Campbell *VSA Jc*

Subject: Amendment to McKay Bay RTE Permit AC29-4277

This memo is in reference to an application from the City of Tampa requesting that the above construction permit be amended to include a flyash silo. The recommendations below are for your consideration.

We have no objections to the amendment request. The following recommendations are offered for your consideration.

1. The particulate emission standard shall be 0.02 gr/acf or 0.36 lbs/hr based on a maximum flow rate of 2109 acfm. (See footnote * below)
2. Visible emissions shall not exceed 5% opacity. [Section 17-2.510, FAC]
3. The permittee shall provide HCEPC and SWFDER at least 30 days advanced written notice of the date of restart of the silo. (Flyash is currently conveyed to the wet quench pit.)
4. Within 5 days after restart of the silo, test the silo baghouse exhaust for visible emissions in accordance with the requirements of Section 17-2.700, F.A.C.
5. Should HCEPC or the Department have reason to believe the particulate emission standard is not being met, HCEPC or the Department may require that compliance with the particulate emission standards be demonstrated by testing in accordance with EPA Methods 1, 2, 3, 4, and 5.
6. Within 45 days of initial compliance testing of the source, test results along with 4 copies of a completed Certificate of Completion of Construction form shall be submitted to the HCEPC.

APIS will be updated for this point when we process operating permits for the four units.

If you have any questions regarding the implementation of the above conditions, please call me at SC 571-5960.

*0.02 gr/acf was recommended as a requested LAER by the applicant. Baghouse manufacturer guarantees this value will not be exceeded.

cc: Bill Thomas, SWFDER

VSA/ch

DEI

OCT 27 1986

BAQM

PS Form 3811, July 1983

SENDER: Complete items 1, 2, 3 and 4.

Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for service(s) requested.

1. Show to whom, date and address of delivery.
2. Restricted Delivery.

3. Article Addressed to:
 Mr. Mike Salmon
 City of Tampa
 City Hall Plaza, 5 North
 Tampa, FL 33602

4. Type of Service:	Article Number
<input type="checkbox"/> Registered <input checked="" type="checkbox"/> Certified <input type="checkbox"/> Express Mail	0155814
<input type="checkbox"/> Insured <input type="checkbox"/> COD	

Always obtain signature of addressee or agent
 DATE DELIVERED.

5. Signature - Addressee

X

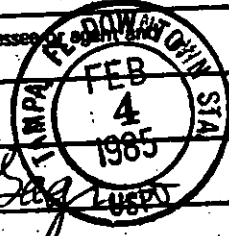
6. Signature - Agent

X

7. Date of Delivery

02-04-85

8. Addressee's Address (ONLY if requested and fee paid)



DOMESTIC RETURN RECEIPT

No. 0155814

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
 NOT FOR INTERNATIONAL MAIL

(See Reverse)

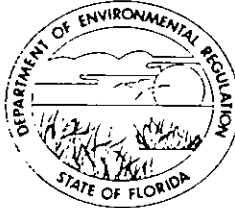
SENT TO			
Mr. Mike Salmon			
STREET AND NO.			
P.O., STATE AND ZIP CODE			
POSTAGE			
\$			
CONSULT POSTMASTER FOR FEES	CERTIFIED FEE	¢	
	SPECIAL DELIVERY	¢	
	RESTRICTED DELIVERY	¢	
	OPTIONAL SERVICES RETURN RECEIPT SERVICE	SHOW TO WHOM AND DATE DELIVERED	¢
		SHOW TO WHOM, DATE, AND ADDRESS OF DELIVERY	¢
		SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY	¢
		SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY	¢
TOTAL POSTAGE AND FEES		\$	
POSTMARK OR DATE		1/30/85	

PS Form 3800, Apr. 1976

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241



BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

January 24, 1985

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Mike Salmon, Administrator
Water Resources and Public Works
City of Tampa
City Hall Plaza, 5 North
Tampa, Florida 33602

RE: Request to extend the expiration date of construction
permit AC 29-47277

Dear Mr. Salmon:

The department has received your request to extend the expiration date of the above referenced state construction permit for the McKay Bay Refuse - to - Energy Project. The department is in agreement with the request and the following shall be added or changed:

Expiration Date:

From: December 31, 1984
To: December 31, 1985

Attachments to be incorporated:

5. M. Salmon's letter, dated June 4, 1984, requesting the extension.
6. C. Gonzalez's memorandum, dated August 10, 1984, on commencement of construction.

Mr. Mike Salmon
Page Two
January 24, 1985

7. C.H. Fancy's letter, dated August 31, 1984, requesting additional information.
8. J.D. Murdoch's letter, dated January 15, 1985, in response to seeking offsets.

This letter must be attached to your construction permit, AC 29-47277, and shall become a part of that permit.

Sincerely,



Victoria J. Tschinkel
Secretary

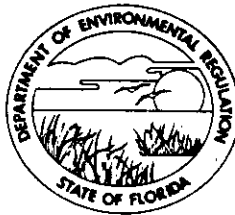
VJT/rw

Attachments

cc: Richard Garrity, Southwest District
Victor St. Augustine, Hillsborough EPC

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241



BOB GRAHAM
GOVERNOR
VICTORIA J. TSCHINKEL
SECRETARY

May 20, 1983

Mr. Dale H. Twachtmann
City of Tampa
McKay Bay Refuse-To-Energy Project
City Hall Plaza, 5N
Tampa, Florida 33602

Re: Modification of Conditions, Permit No. AC 29-47277

Dear Mr. Twachtmann:

We are in receipt of requests for modifications of the permit conditions. The specific conditions are changed as follows:


Specific Condition 2

From: Municipal waste only shall be burned in the facility. Wastewater treatment plant sludges or hazardous wastes shall not be incinerated.

TO: Municipal waste and infectious waste shall be burned in the facility. Waste oil collected from spills cleaned up by the Port Authority not exceeding 10,000 gallons per day from tanker trucks or 10 tons per day of fiber drums shall also be burned. Wastewater treatment plant sludges or hazardous wastes shall not be incinerated.

This letter must be attached to your permit and becomes a part of that permit.

Sincerely,


Victoria J. Tschinkel
Secretary

VJT/ks

Issued this 20 day of May, 1983

Final Determination

Amendment to
McKay Bay Refuse-To-Energy Project
Hillsborough County

Permit Number
AC 29-47277

Florida Department of Environmental Regulation
Bureau of Air Quality Management
Central Air Permitting

May 20, 1983

FINAL DETERMINATION

The City of Tampa's request to amend the construction permit of its McKay Bay Refuse-To-Energy Project to allow the incineration of infectious waste and waste oil recovered from oil spills has been reviewed by the Bureau of Air Quality Management. The department's Intent to Issue the permit was published in the Tampa Tribune on April 11, 1983.

Copies of the preliminary determination and technical review were available for public inspection at the Hillsborough County Environmental Protection Commission Office, the DER Southwest District Office, and the Bureau of Air Quality Management office.

No comments were received regarding this permit amendment. Therefore, it is requested that the permit conditions be issued as indicated in the preliminary determination.

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.: _____	
To: _____	Loctn.: _____	
From: _____	Date: _____	
Reply Optional ()	Reply Required ()	Info. Only ()
Date Due: _____	Date Due: _____	

TO: Victoria J. Tschinkel
FROM: Clair Fancy *Clair Fancy*
DATE: May 20, 1983
SUBJ: Approval of Air Construction Permit Amendment

Please find attached an amendment to the City of Tampa's permit for the McKay Bay Refuse-To-Energy Project to allow the incineration of infectious waste and waste oil recovered from oil spills.

The Bureau recommends your approval and signature..

CF/pa
Attachment

REC-1

Office of the Secretary

Preliminary Determination
and
Technical Review

Amendment to
McKay Bay Refuse-To-Energy Project
Hillsborough County

Permit Number
AC 29-47277

Florida Department of Environmental Regulation
Bureau of Air Quality Management
Central Air Permitting

February 1, 1983

Notice of Proposed Agency Action

The Department of Environmental Regulation gives notice of its intent to modify a permit to the City of Tampa to allow the incinerating of infectious waste and waste oil recovered from oil spills by the Port Authority at its McKay Bay Refuse-To-Energy Project in Hillsborough County. A determination of Best Available Control Technology (BACT) was not required.

A person who is substantially affected by the Department's proposed permitting decision may request a hearing in accordance with Section 120.57, Florida Statutes, and Chapters 17-1 and 28-5, Florida Administrative Code. The request for hearing must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Twin Towers Office Building, Tallahassee, Florida 32301, within fourteen (14) days of publication of this notice. Failure to file a request for hearing within this time period shall constitute a waiver of any right such person may have to request a hearing under Section 120.57, Florida Statutes.

The application, technical evaluation and Department's intent are available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at the following locations:

DER Bureau of Air Quality Management
2600 Blair Stone Road
Tallahassee, Florida 32301

DER Southwest District
7601 Highway 301 North
Tampa, Florida 33610

Hillsborough County Environmental
Protection Commission
1900 Ninth Avenue
Tampa, Florida 33605

Comments on this action shall be submitted in writing to Bill Thomas of the DER Tallahassee office within thirty (30) days of this notice.

I. Project Description

A. Applicant:

City of Tampa
City Hall Plaza, 5N
Tampa, Florida 33602

B. Project and Location

The applicant's proposed project consists of constructing an infectious waste handling facility to feed this type waste to the resource recovery units. Also permission to burn oil from spills recovered by the Port Authority has been requested. The facility is located in Tampa in Hillsborough County. The universal transverse mercator (UTM) coordinates of the source are zone 17, 360.0 km East and 3091.9 km North.

C. Project Description and Controls

The resource recovery facility will be modified by the addition of an infectious waste loading area at the rear of the facility. The bagged infectious waste will be transferred to portable buckets. The buckets will be wheeled into an elevator and transported to the feed chute for the incinerator, where they will be mechanically discharged into the chute. Workers will not come into direct contact with the waste and no infectious wastes will be discharged directly into the refuse pit.

The facility operation will also be modified by allowing the incineration of waste oil collected by the port authority from the clean up of oil spills. The oil will be delivered to the resource recovery facility by tanker truck or in polyethylene pads packed in fiber drums. Recovered oil from the tanker trucks would be sprayed onto the refuse in the pit. The fiber drums would be placed directly into the combustion train. The facility would accept no more than 15,000 gallons per day of oil from tankers or 10 tons per day of fiber drums. This will increase the heat content of the municipal waste. It is estimated that an average of 10,000 gallons per year will be disposed of by this method.

Since the capacity of the resource recovery units are not being increased, the control equipment will adequately control the emissions generated at the facility. Emission limitations will be the same as those issued previously.

II. Rule Applicability

The proposed project does not meet the definition of a modification as contained in Florida Administrative Code Rule 17-2.100 (102) since actual emissions are not increased.

Therefore, the new source review requirements for nonattainment areas and the new source review requirements for prevention of significant deterioration areas are not applicable.

The proposed project is a significant change to permit specific conditions. Therefore, the public must have opportunity for comment before the amendment can be issued.

III. Summary of Emissions and Air Quality Analysis

A. Emission Limitations

The maximum hourly and the annual emission limitations are unchanged by this proposal. The hourly and annual throughput rates of feed to the incinerator also remain the same. Therefore, the emission limitations previously issued, will not be amended.

B. Air Quality Analysis

Since there is no increase in emissions, an ambient air quality analysis is not required.

IV. Conclusions

Incineration is the preferred method of disposal of infectious waste. The Department of Health and Rehabilitative Services and the Department of Environmental Regulation have issued a joint memorandum which defines infectious waste and recommends incineration.

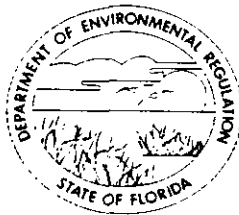
The usual method of disposal of infectious waste is using a pathological incinerator. The information provided with this proposal indicated the residence time of approximately 3.7 seconds at 1800° F will exceed the minimum temperature and residence time requirements for a pathological incinerator which are listed in the EPA document AP-40. Since separate handling procedures and equipment will be added to ensure safe handling of this waste and adequate destruction should be provided by the incinerator, the Department agrees to this change.

The other part of the proposal involves the incineration of oil which has been cleaned up from oil spills and collected by the Port Authority. This oil will be put on the waste in the refuse pit. Thus, the heating value of the municipal waste should increase and aid in its destruction. No increase in emissions is expected from this operation.

The specific conditions should be amended to allow these proposals, since the facility would remain in compliance with all applicable requirements of Chapter 17-2, FAC.

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241



BOB GRAHAM
GOVERNOR
VICTORIA J. TSCHINKEL
SECRETARY

February 1, 1983

Mr. Dale H. Twachtmann
City of Tampa
McKay Bay Refuse-To-Energy Project
City Hall Plaza, 5N
Tampa, Florida 33602

DRAFT

Dear Mr. Twachtmann:

Re: Modification of Conditions, Permit No. AC 29-47277

We are in receipt of requests for modifications of the permit conditions. The specific conditions are changed as follows:

Specific Condition 2

From: Municipal waste only shall be burned in the facility. Wastewater treatment plant sludges or hazardous wastes shall not be incinerated.

To: Municipal waste and infectious waste shall be burned in the facility. Waste oil collected from spills cleaned up by the Port Authority not exceeding 10,000 gallons per day from tanker trucks or 10 tons per day of fiber drums shall also be burned. Wastewater treatment plant sludges or hazardous wastes shall not be incinerated.

This letter must be attached to your permit and becomes a part of that permit.

Sincerely,

Victoria J. Tschinkel
Secretary

VJT/ks



CITY OF TAMPA

Bob Martinez, Mayor

McKAY BAY REFUSE-TO-ENERGY PROJECT

November 9, 1982

Mr. Clair Fancy
Department of Environmental Regulation
Bureau of Air Quality
2600 Blair Stone Road
Tallahassee, Florida 32301

Dear Mr. Fancy:

As you are aware, the City of Tampa has received permits from D.E.R. for construction of the McKay Bay Refuse-to-Energy Facility. The Facility is designed to burn solid waste from the City of Tampa and to simultaneously generate electricity. The City would also like to burn infectious waste in the Facility.

The Department of Health and Rehabilitative Services and D.E.R. have issued a joint memorandum which defines infectious waste and recommends incineration as the preferred method of disposal. While the City of Tampa's application to construct an air pollution source does not prohibit burning of infectious waste, the subject is not specifically addressed. The City therefore requests that your office confirm the acceptability of burning infectious waste in the McKay Bay Refuse-to-Energy Facility.

Special handling procedures and equipment have been added to the operation and construction plans for the Facility to insure safe handling of the infectious waste (see attached). Additionally, the Facility design will allow a residence time of approximately 3.7 seconds, at 1800°F, for all gases (attached). Also, as we have previously discussed, no radioactive waste will be disposed of at the incinerator.

If you have any questions concerning this request, please contact me. Thank you for your time and consideration.

Sincerely,

Joseph D. Murdoch
Resource Recovery Management Analyst

JDM/dw

cc John Egan, EPC



Waste Management, Inc.
3003 Butterfield Road • Oak Brook, Illinois 60521

November 5, 1982

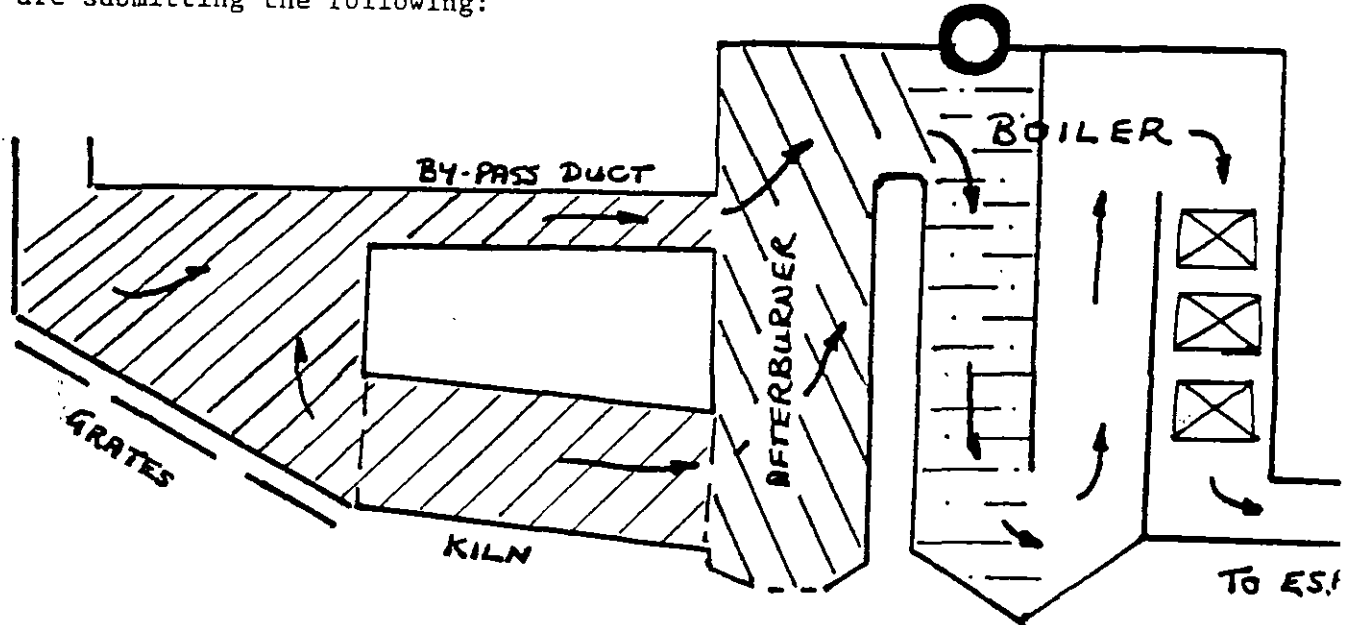
City of Tampa
City Hall Plaza, 5N
Tampa, Florida 33602

Attention: Mr. Joe Murdoch

Subject: System Volund - Gas Residence Time and Temperature

Dear Joe:

In response to your recent request for information concerning odor control and burn-out of gases in the furnace system to be installed at McKay Bay, we are submitting the following:



Zone 1 - Furnace, Rotary Kiln and By-Pass Ducting
Average Temperature 1750°F
Residence Time 2.7 seconds



Zone 2 - Afterburner
Average Temperature 1750°F
Residence Time 0.95 seconds



Zone 3 - Boiler - 1st Pass
Average Temperature 1300°F
Residence Time 3.89 seconds

Mr. Joe Murdoch
November 5, 1982
Page 2

It has been Volunds' experience that gas retention for 1 second at or above 1300°F will eliminate any detectable odor in the flue gases.

I hope this information is helpful in your discussions with the appropriate officials.

Very truly yours,

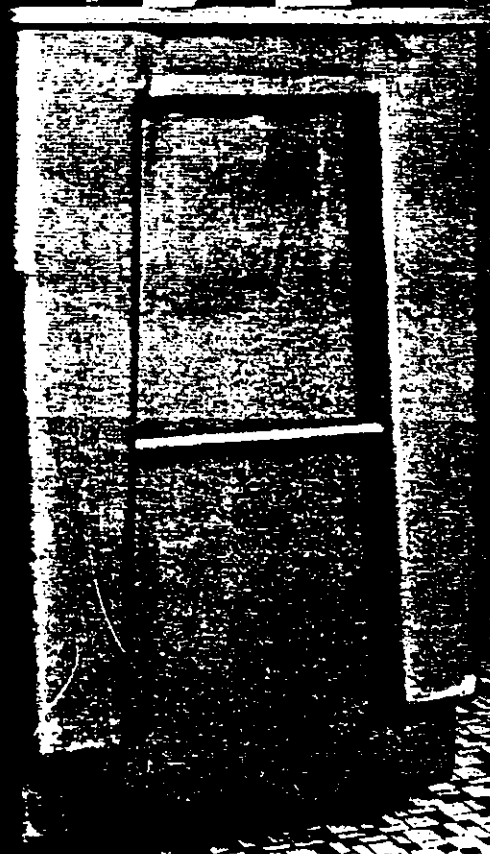


Peter L. Ware
Director
Technical Development

PJW:mat

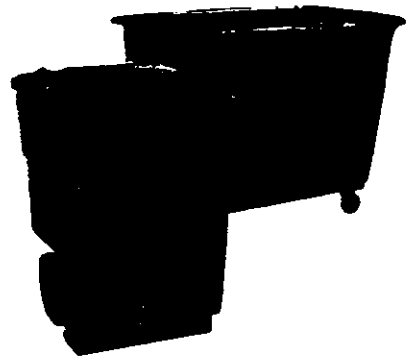
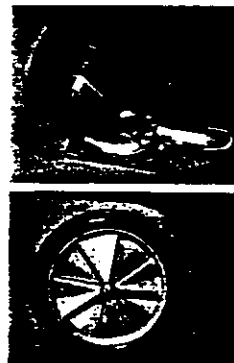
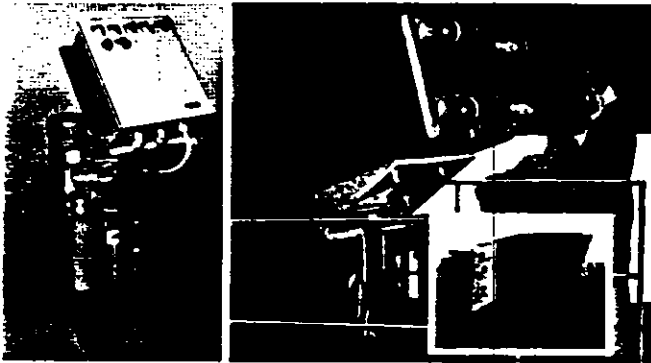
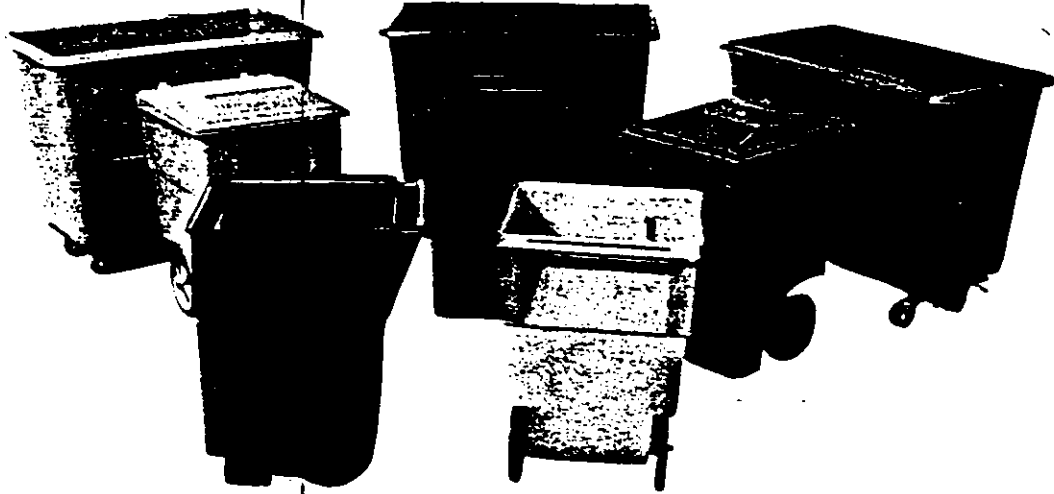
Rubbermaid

in/terior service Tote



A safety first system for collecting and automatically dumping all types of building trash.

Traditional Rubbermaid Product integrity.



Hydraulic Dumper SPECIFICATIONS

Electro-hydraulic dumpers available for most dock level and ground level stationary compactors. **NOTE:** 1.0 cu. yd. Dumper will dump both sizes of in/Toters.

POWER:	3ph./60cy./220-440V.	1/2 cu. yd.	1.0 cu. yd.
	Totally enclosed, fan-cooled motor. All electrical components are UL listed.		
		2 hp	3 hp
HYDRAULICS:	1300psi; Built-in fluid filter and flow control valves. Meets all J.I.C. and I.S.O. Standards.	2 gpm	3 gpm
		5 gal. reservoir	10 gal. reservoir
CONTROLS:	Key - operated ON/OFF with manual directional "deadman" valve.		

INSTALLATION: Dumpers are specified and custom-installed by exclusive in/Toter™ distributors, to work with most stationary compactor models.

This equipment conforms to all applicable ANSI Z245.1-1975 Safety Standards. Pictures in this brochure are illustrative only. Products must be installed in conformity with ANSI Z245.1 as well as any applicable codes and regulations. Products must be used with safe practices and in accordance with said regulations and standards.

in/Toter™ SPECIFICATIONS

	1/2 cu. yd.	1.0 cu. yd.
DIMENSIONS:	32"Lx29"Wx41 1/4"H	55 1/2"Lx33 1/2"Wx44 1/4"H
WEIGHT:	37 lbs.	98 lbs.
In/Toter Lid	5 lbs.	11 lbs.
CAPACITY:	200 lbs., 11 cu. ft.	500 lbs., 1.0 cu. yd.
WHEELS:	2-12"x1.75" Semi-pneumatic	2-5" Swivel Casters 2-5" Locking Casters
MATERIAL:	Specially compounded high density polyethylene	
COLORS:	Brown, Blue, Red, Orange, Yellow	
IMPRINTING:	Permanent hot stamped imprinting optional. Examples: "SOILED LINEN", "KITCHEN"	
LINER:	Gray or red poly-bag liners available.	

Specifications subject to change without notice.

A safety-engineered system manufactured and distributed exclusively by:

Paul Reilly Company of Illinois, Inc.
1319 Howard St.
Elk Grove Village, IL 60007
(312) 364-1960



RUBBERMAID APPLIED PRODUCTS INC.

STATE OF FLORIDA



DEPARTMENT OF

Health & Rehabilitative Services

Bob Graham, Governor

1317 WINEWOOD BOULEVARD

TALLAHASSEE, FLORIDA 32301

PDHEC (904/488-2905, SC278-2905)

January 25, 1982
INFORMATION

SUBJECT: Guidelines for Hospitals, Renal Dialysis Centers,
Nursing Homes and Laboratories for the Classification
and Handling of Disposable Infectious Waste


TO: District Administrators
Attention: Health Program Supervisors
County Health Unit Directors
All Licensed Hospitals

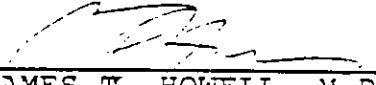
Attached are guidelines (minimum standards) for hospitals, renal dialysis centers, nursing homes, and laboratories for the classification and handling of disposable infectious waste. These guidelines were developed following a meeting of representatives from the Department of Health and Rehabilitative Services, Department of Environmental Regulation, Centers for Disease Control, County Health Units, Hospital Infection Control Specialists, and Waste Disposal Industry (June 29, 1981 - list of attendees available upon request). The guidelines in draft form were distributed to all meeting attendees for comment.

These guidelines are intended to aid hospitals, renal dialysis centers, nursing homes, and laboratories in classifying and handling disposable infectious waste in preparation for collection and ultimate disposal in the environment. They are not intended to be all encompassing recommendations for handling human tissues/waste specimens (or materials in contact with such specimens) within hospitals. Hospitals and other institutions should develop additional internal policies for the protection of employees from contact with potentially infectious material and for the proper sterilization of reusable items. We feel, and the Department of Environmental Regulation (DER) concurs, that these guidelines are not in conflict with DER Administrative Code, Chapter 17-7.02, Definition of Infectious Waste, since that definition uses permissive language in determining what waste materials are infectious waste, i.e. "...waste which may consist of...". Once materials are classified as infectious, they shall be disposed of in accordance with DER Administrative Code, Chapter 17-7.04. It is, therefore, obvious that the enforcement of these guidelines (or when they are incorporated

into F.A.C.) will have to take place at the source (hospital, etc.) and will not be enforceable by examining materials in landfills (unless they are in an infectious waste bag).

We hope that any local ordinances pertaining to this subject will be based on these guidelines. We plan to incorporate them, in principle, into the Florida Administrative Code pertaining to hospitals (Chapter 10D-28) and nursing homes (Chapter 10D-29) and therefore, additional comments are appreciated.


ROBERT A. GUNN, M.D., M.P.H.
State Epidemiologist
Epidemiology/Communicable Disease
Health Program Office


JAMES T. HOWELL, M.D., M.P.H.
Acting Staff Director
Health Program Office

RAG/JTH/sb

Attachment

- cc: All Meeting Attendees
OPHLS (Hr. Hartwig) (for distribution)
OPLC (Ms. Beamer) (for distribution to nursing homes)
PDPA (Ms. Selesky)
Dr. Joel Ehrenkranz
Mr. Spero Moutsatsos, Florida Endstage Renal
Disease Network (for distribution)
Mr. Robert J. Constantine, Director
Mental Health Program Office (for distribution)
OPIRM (for distribution)



February 1, 1982

GUIDELINES (MINIMUM STANDARDS) FOR HOSPITALS, RENAL
DIALYSIS CENTERS, NURSING HOMES, AND LABORATORIES
FOR THE CLASSIFICATION AND HANDLING OF DISPOSABLE
"INFECTIOUS WASTE"

A. Definitions - for the purposes of these guidelines the following definitions are used:

1. Solid Waste - All solid material emanating from patient care which includes, but is not limited to, the following disposables: linens, gowns, intravenous (I.V.) material, catheters, syringes, needles, clinical laboratory specimen containers, tubes, drainage systems, renal dialyzers and accessories, and other disposable items which may be contaminated with urine, feces, blood, secretions or other bodily fluids.
2. Liquid Waste - All material emanating from patient care that may be and is routinely placed into the sewage system, which includes, but is not limited to, urine, feces, blood, secretions, drainage fluids and other bodily fluids.

B. Infectious Waste

The following materials are classified as infectious waste:

1. Patients Under Isolation Orders - All solid wastes from patients under strict or respiratory isolation as defined in Isolation Techniques for Use in Hospitals, Second Edition (or more recent edition), 1975, U.S. Department of Health and Human Services, Centers for Disease Control.
2. Patients Under Precautions Orders - All solid wastes from patients pertaining to the maintenance of enteric, wound/skin, discharge (secretion and excretion) and blood precautions as defined in Isolation Techniques for Use in Hospitals, Second Edition (or more recent edition), 1975, U.S. Department of Health and Human Services, Centers for Disease Control.

3. All unautoclaved microbiologic waste derived from processing clinical specimens which includes, but is not limited to, all cultures and disposable items that may be contaminated with culture organisms.
4. All solid tissue specimens
5. Class IV Viral Agents - Waste from patients (or waste from laboratory experiments) infected with Centers for Disease Control (CDC) Class IV viral agents (Appendix A) shall include all solid waste in addition to all liquid waste which may contain the infecting agent.

C. Needles/Sharps ("sharps")

All material with sharp or jagged edges ("sharps"), which includes, but is not limited to, needles, syringes, scalpels, lancets, and pipettes shall be placed in rigid disposable containers. They may be disposed of in regular waste unless classified as infectious waste as per Section B; however, if the regular waste disposal system uses a trash compacter and the integrity of the container is in doubt, such container should be handled as infectious waste.

It is also recommended that needles and syringes not be dismantled or destroyed after use but that they be placed intact directly into a rigid container.

D. Handling

Infectious waste shall be placed in double impervious plastic bags (color-coded - usually red) and each single bag shall be at least two mills in thickness. A bag, when full, should not exceed 25 pounds. All bags should be securely closed and a tag, which reads "INFECTIOUS WASTE" and identifies the hospital, dialysis center, laboratory, or nursing home from which the waste is being removed, shall be attached to the bag in a conspicuous manner. As an alternative to tagging, the information which is required to be placed on the tags may be printed in a conspicuous manner on the bag itself.

E. Storage and Removal

Bags of infectious waste shall be transported and stored in receptacles which are conspicuously marked "INFECTIOUS WASTE". Infectious waste shall be held for pick-up in specially-marked non-metal containers separate from regular waste and shall be secured from unauthorized persons, birds, and animals and, if possible, rain/storm water. Infectious waste bags should not be removed by mechanical or compaction equipment. Broken or leaking

bags shall not be transported from the originating site until re-bagged.

F. Disposal

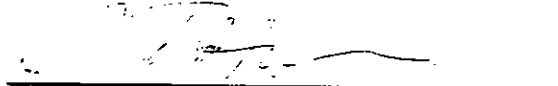
Infectious waste must be disposed of according to the Department of Environmental Regulation rule 17-7.04(6) which states "infectious waste shall be properly incinerated or processed by an alternate method which has been approved by the Department (DER). No untreated infectious waste shall be deposited in any sanitary landfill."



ROBERT A. GUNN, M.D., M.P.H.
State Epidemiologist
Epidemiology/Communicable Disease
Health Program Office
Department of Health and
Rehabilitative Services



RODNEY S. DeHan, Ph.D.
Administrator
Groundwater Section
Department of Environmental
Regulation



JAMES T. HOWELL, M.D., M.P.H.
Acting Staff Director
Health Program Office
Department of Health and
Rehabilitative Services



VICTORIA J. TSCHINKEL
Secretary
Department of Environmental
Regulation

Attachment

APPENDIX A - CENTERS FOR DISEASE CONTROL (CDC)
CLASSIFICATION OF ETIOLOGIC AGENTS

Class 4

Agents that require the most stringent conditions for their containment because they are extremely hazardous to laboratory personnel or may cause serious epidemic disease. This class includes Class 3 agents from outside the United States when they are employed in entomological experiments or when other entomological experiments are conducted in the same laboratory area.

Alastrun, Smallpox, Monkey pox and Whitepox, when used for transmission or animal inoculation experiments

Hemorrhagic fever agents, including Crimean hemorrhagic fever (Congo), Junin, and Machupo viruses, and others as yet undefined

Herpesvirus simiae (Monkey B virus)

Lassa virus

Marburg Virus

Tick-borne encephalitis virus complex, including Russian spring-summer encephalitis, Kyasanur forest disease. Omsk hemorrhagic fever, and Central European encephalitis viruses.

Venezuelan equine encephalitis virus, epidemic strains, when used for transmission or animal inoculation experiments

Yellow fever virus - wild, when used for transmission or animal inoculation experiments



CITY OF TAMPA

Bob Martinez, Mayor

MCKAY BAY REFUSE-TO-ENERGY PROJECT

December 29, 1982

DER
JAN 3 1983
BAQM

Mr. Clair Fancy
Department of Environmental Regulation
Bureau of Air Quality
2600 Blair Stone Road
Tallahassee, Florida 32301

RE: Permit #PSD-FL-086, AC29-47277

Dear Mr. Fancy:

As you are aware, the City of Tampa has received permits from D.E.R. for construction of the McKay Bay Refuse-to-Energy Facility. The Facility is designed to burn solid waste from the City of Tampa and to simultaneously generate electricity. The City has previously requested to modify its permits to Construct an Air Pollution Source to allow burning of infectious waste in the Facility (letter of November 9, 1982). Recently, the City received a request from a Tampa Port Authority group to provide facilities for disposal of oil recovered from oil spills occurring at the Port of Tampa.

Oil would be delivered to the Facility by tanker truck or in polyethylene pads packed in fiber drums. The Facility would accept no more than 15,000 gallons per day from tanker trucks which would spray the oil onto the garbage in the pit. The Facility would accept up to 10 tons per day of fiber drums which would be placed directly into the combustion train. Disposal will only be available for oil spilled at the Port of Tampa. Such spills have resulted in an average of approximately 10,000 gallons of oil being recovered each year. The only major spill in the Port of Tampa released approximately 30,000 gallons of oil in 1979. No additional air emissions are expected from the burning of recovered oil.

The City therefore requests to have its permits to Construct an Air Pollution Source (PSD FL-086, AC29-47277)

Mr. Clair Fancy
Page 2
December 29, 1982

modified to allow burning of the above-mentioned quantities of recovered oil. Additionally, we request modification of these permits to allow burning of infectious waste as described in our letter of November 9, 1982.

If you have any questions concerning these requests, please contact my office. Thank you.

Very truly yours,



Joseph D. Murdoch
Resource Recovery
Management Analyst

JDM/dw

cc Rick Garrity
John Egan

COMMISSION
PHYLLIS BUSANSKY
JOE CHILLURA
PAM IORIO
SYLVIA KIMBELL
JAN KAMINS PLATT
JAMES D SELVEY
ED TURANCHIK

FAX (813) 272-5157



ROGER P. STEWART
EXECUTIVE DIRECTOR
ADMINISTRATIVE OFFICES
AND
WATER MANAGEMENT DIVISION
1900 - 9TH AVENUE
TAMPA, FLORIDA 33605
TELEPHONE (813) 272-5960
AIR MANAGEMENT DIVISION
TELEPHONE (813) 272-5530
WASTE MANAGEMENT DIVISION
TELEPHONE (813) 272-5788
ECOSYSTEMS MANAGEMENT DIVISION
TELEPHONE (813) 272-7104

ENVIRONMENTAL PROTECTION COMMISSION
of Hillsborough County

FAX Transmittal Sheet

DATE: 9/22/92

TO: BRUCE MITCHELL

FAX Phone: 904-922-6979 Voice Phone: _____

TOTAL NUMBER OF PAGES INCLUDING THIS COVER PAGE: 19

EPC FAX Transmission Line: (813) 272-7144 For retransmission or any FAX problems, call: (813) 272-7104

FROM: STERLING WATKINS (circle applicable phone number and organization below)

(813) 272-5530

Air Division

- Special Programs

- Air Engineering

(813) 272-5788

Waste Management

- UST Clean-Up

- Solid/Hazardous Waste

- UST Compliance

(813) 272-7104

Ecosystems Management

- Environmental Engineering

- Environmental Assessment

- Compliance & Enforcement

SPECIAL INSTRUCTIONS:

Copy of permits (original), BACT, LAER. year 1983 Issued April 23, 1982
Amendments: NOV 7, 1986. Construction of fly ash silo (addition of specific conditions 9-through 14
may 20, 1983: Change of specific condition NO 2
to allow the burning of infectious waste and
waste oil collected from spills cleaned up by the Port
Authority.

(File: \work\misc\FAXTrans.frm)

COMMISSION
PHYLLIS BUSANSKY
JOE CHILLURA
PAM IORIO
SYLVIA KIMBELL
JAN KAMINIS PLATT
JAMES D. BELVEY
ED TURANCHIK

FAX (813) 272-5157



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ENVIRONMENTAL PROTECTION COMMISSION
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FROM: STERLING WOODARD (circle applicable phone number and organization below)

(813) 272-5630

Air Division

- Special Programs

- Air Engineering

(813) 272-5788

Waste Management

- UST Clean-Up

- Solid/Hazardous Waste

- UST Compliance

(813) 272-7104

Ecosystems Management

- Environmental Engineering

- Environmental Assessment

RECEIVED Compliance & Enforcement

SPECIAL INSTRUCTIONS: _____ SEP 23 1992

Division of Air
Resources Management

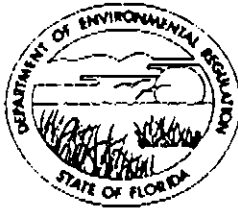
(File:work\mia\FAXTrans.Frm)

VICTOR
RECEIVED

NOV 17 1986

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

M.L.L.P.A.

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241BOB GRAHAM
GOVERNOR
VICTORIA J. TSCHINKEL
SECRETARY

November 7, 1986

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Ms. Nancy McCann
 Urban Environmental Coordinator
 Office of Environmental Coordination
 City Hall Plaza, 5N
 Tampa, Florida 33602

Dear Ms. McCann:

Re: Amendment to Construction Permit AC 29-47277

The department is in receipt of your request to amend the above referenced state construction permit to reflect the "as built" construction of the facility. The amendment to the permit allows for the construction of a flyash storage silo. Particulate matter emissions will be controlled by use of a baghouse filter and are in accordance with the department's determination of Lowest Achievable Emission Rate for particulate matter. The department is in agreement with the request and the following shall be added or changed:

Expiration Date:

From: April 30, 1986
 To: December 31, 1986

Specific Conditions:

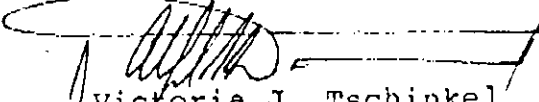
9. Particulate matter emissions from the flyash storage silo shall not exceed 0.025 grains per dry standard cubic foot or 0.36 pound per hour based on a maximum flow rate of 2109 acfm.
10. Visible emissions from the flyash storage silo shall not exceed 5% opacity. Compliance with this limit shall be demonstrated by DER Method 9 in accordance with the requirements of section 17-2.700, FAC.
11. The permittee shall provide HCEPC and SWFDER at least 30 days advanced written notice of the startup date of the flyash storage silo.

Ms. Nancy McCann
Page Two
November 7, 1986

12. The visible emissions tests for the flyash storage silo must be accomplished within 5 days of startup of the silo.
13. Should HCEPC or the Department have reason to believe the particulate emission standard is not being met, HCEPC or the Department may require that compliance with the particulate emission standards be demonstrated by testing in accordance with EPA Methods 1, 2, 3, 4, and 5.
14. Within 45 days of initial compliance testing of the source, test results along with 4 copies of a completed Certificate of Completion of Construction form shall be submitted to the HCEPC.

This letter must be attached to your construction permit, AC 29-47277, and shall become a part of that permit.

Sincerely,



Victoria J. Tschinkel
Secretary

VJT/ks

cc: Bill Thomas, SW District
Victor San Augustin, HCEPC ✓

File 4 h(2)

7.026

Final Determination

RECEIVED

MAY 26 1983

H.C.E.P.C.

Amendment to
McKay Bay Refuse-To-Energy Project
Hillsborough County

Permit Number
AC 29-47277

Florida Department of Environmental Regulation
Bureau of Air Quality Management
Central Air Permitting

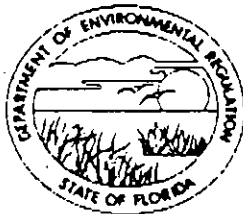
May 20, 1983

FINAL DETERMINATION

The City of Tampa's request to amend the construction permit of its McKay Bay Refuse-To-Energy Project to allow the incineration of infectious waste and waste oil recovered from oil spills has been reviewed by the Bureau of Air Quality Management. The department's Intent to Issue the permit was published in the Tampa Tribune on April 11, 1983.

Copies of the preliminary determination and technical review were available for public inspection at the Hillsborough County Environmental Protection Commission Office, the DER Southwest District Office, and the Bureau of Air Quality Management office.

No comments were received regarding this permit amendment. Therefore, it is requested that the permit conditions be issued as indicated in the preliminary determination.

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATIONTWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241BOB GRAHAM
GOVERNOR
VICTORIA J. TSCHINKEL
SECRETARY

May 20, 1983

Mr. Dale H. Twachtmann
City of Tampa
McKay Bay Refuse-To-Energy Project
City Hall Plaza, 5N
Tampa, Florida 33602

Re: Modification of Conditions, Permit No. AC 29-47277.

Dear Mr. Twachtmann:

We are in receipt of requests for modifications of the permit conditions. The specific conditions are changed as follows:

Specific Condition 2

From: Municipal waste only shall be burned in the facility. Wastewater treatment plant sludges or hazardous wastes shall not be incinerated.

TO: Municipal waste and infectious waste shall be burned in the facility. Waste oil collected from spills cleaned up by the Port Authority not exceeding 10,000 gallons per day from tanker trucks or 10 tons per day of fiber drums shall also be burned. Wastewater treatment plant sludges or hazardous wastes shall not be incinerated.

This letter must be attached to your permit and becomes a part of that permit.

Sincerely,

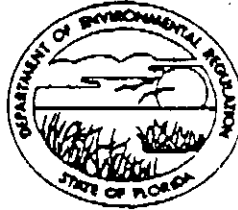
Victoria J. Tschinkel
Secretary

VJT/ks

Issued this 20 day of May, 1983

7-628

TWIN TOWERS OFFICE BUILDING
2800 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301



BOB GRAHAM
GOVERNOR

Victoria J. Tschinkel
SECRETARY

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

April 23, 1982

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

RECEIVED

APR 28 1982

H.C.E.P.C.

Dale H. Twachtmann
City of Tampa
306 East Jackson Street
Tampa, Florida 33602

Dear Mr. Twachtmann:

Enclosed is Permit Number AC 29-47277, dated April 23, 1982
to City of Tampa
issued pursuant to Section 403, Florida Statutes.

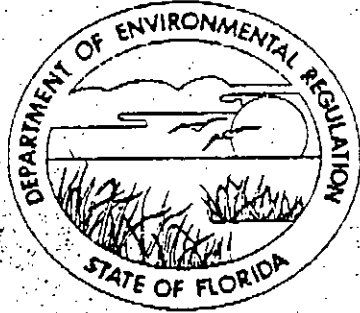
Acceptance of the permit constitutes notice and agreement that the Department will periodically review this permit for compliance, including site inspections where applicable, and may initiate enforcement actions for violation of the conditions and requirements thereof.

Sincerely,

C. H. Fancy
C. H. Fancy, P.E.
Deputy Chief
Bureau of Air Quality Management

CHF/pa

cc: Dan Williams, FDER, Southwest District
Hooshang Boostani, Hillsborough County Environmental
Protection Commission
Joe Murdoch, City of Tampa



STATE OF FLORIDA
 DEPARTMENT OF
 ENVIRONMENTAL REGULATION

CONSTRUCTION
 PERMIT

NO. AC 29- 47277

CITY OF TAMPA
 MCKAY BAY REFUSE-TO-ENERGY
 FACILITY NO. 1

DATE OF ISSUANCE

April 23, 1982

DATE OF EXPIRATION

DECEMBER 31, 1984

Victoria Tschinkel

VICTORIA TSCHINKEL
 SECRETARY

Final Determination

McKay Bay Refuse-to-Energy Project
Hillsborough County

Permit Number:

AC 29-47277

Florida Department of Environmental Regulation
Bureau of Air Quality Management
Central Air Permitting

April 21, 1982

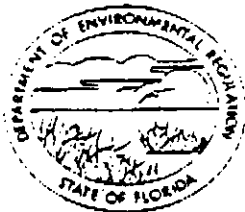
The proposed air pollution construction application from the City of Tampa to build a resource recovery facility has been reviewed by the Bureau. The Department's Intent to Issue the construction permit was published in the Tampa Times on March 22, 1982. Copies of the preliminary determination were available for public inspection at the Hillsborough County Environmental Protection Commission Office, at the Department's Southwest District Office and at the Bureau of Air Quality Management.

Only one letter of comment was received during the thirty day public notice period. The City of Tampa has requested that another specific condition be added that would allow a procedure for adjusting the emission limitations if the estimated emissions were less than the actual emissions. Since this condition is similar to a general condition in the federal permit and follows the Department's policy, the Bureau agrees with the recommendation.

Therefore, it is recommended that the air construction permit be issued with the above mentioned addition.

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301



BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

APPLICANT: City of Tampa
306 East Jackson Street
Tampa, Florida 33602

PERMIT/CERTIFICATION
NO. AC 29-47277

COUNTY Hillsborough

PROJECT: McKay Bay
Refuse-to-Energy
Facility No. 1

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Chapter 17-2
and 17-4, Florida Administrative Code. The above named applicant, hereinafter called Permittee, is hereby authorized to
perform the work or operate the facility shown on the approved drawing(s), plans, documents, and specifications attached hereto and
made a part hereof and specifically described as follows:

Rehabilitation of the three combustion chambers at the Tampa Municipal Incinerator and the construction of a fourth 250 TPD combustion chamber and the modification of the facility to a resource recovery facility.

Attachments:

1. McKay Bay Refuse-to-Energy Project, Application to Construct an Air Pollution Source, July, 1981.
2. McKay Bay Refuse-to-Energy Project, Application to Construct an Air Pollution Source, October, 1981.
3. Letter of Richard Garrity to Steve Smallwood, December 10, 1981, concerning effort to obtain emission offsets.
4. Letter of Richard Garrity to Clair Fancy, February 18, 1982, requesting hourly emission rate changes.

PERMIT NO.: AC 29-47277
APPLICANT: City of Tampa

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions" and as such are binding upon the permittee and enforceable pursuant to the authority of Section 403.161(1), Florida Statutes. Permittee is hereby placed on notice that the department will review this permit periodically and may initiate court action for any violation of the "Permit Conditions" by the permittee, its agents, employees, servants or representatives.
2. This permit is valid only for the specific processes and operations indicated in the attached drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit shall constitute grounds for revocation and enforcement action by the department.
3. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately notify and provide the department with the following information: (a) a description of and cause of non-compliance; and (b) the period of non-compliance, including exact dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance. The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the department for penalties or revocation of this permit.
4. As provided in subsection 403.087(6), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Nor does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.
5. This permit is required to be posted in a conspicuous location at the work site or source during the entire period of construction or operation.
6. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source, which are submitted to the department, may be used by the department as evidence in any enforcement case arising under the Florida Statutes or department rules, except where such use is proscribed by Section 403.111, F.S.
7. In the case of an operation permit, permittee agrees to comply with changes in department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or department rules.
8. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, plant, or aquatic life or property and penalties therefore caused by the construction or operation of this permitted source, nor does it allow the permittee to cause pollution in contravention of Florida Statutes and department rules, except where specifically authorized by an order from the department granting a variance or exception from department rules or state statutes.
9. This permit is not transferable. Upon sale or legal transfer of the property or facility covered by this permit, the permittee shall notify the department within thirty (30) days. The new owner must apply for a permit transfer within thirty (30) days. The permittee shall be liable for any non-compliance of the permitted source until the transferee applies for and receives a transfer of permit.
10. The permittee, by acceptance of this permit, specifically agrees to allow access to permitted source at reasonable times by department personnel presenting credentials for the purposes of inspection and testing to determine compliance with this permit and department rules.
11. This permit does not indicate a waiver of or approval of any other department permit that may be required for other aspects of the total project.
12. This permit conveys no title to land or water, nor constitutes state recognition or acknowledgement of title, and does not constitute authority for the reclamation of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the state. Only the Trustees of the Internal Improvement Trust Fund may express state opinion as to title.
13. This permit also constitutes:
 - Determination of Best Available Control Technology (BACT)
 - Determination of Prevention of Significant Deterioration (PSD)
 - Certification of Compliance with State Water Quality Standards (Section 401, PL 92-500)

PERMIT NO.: AC 29-47277
APPLICANT: City of Tampa

SPECIFIC CONDITIONS:

1. The maximum allowable emissions from the resource recovery facility No. 1 shall be:

Pollutant	Emission Limitation
Particulate	0.025 gr/dscf @12% CO ₂ 27.9 lb/hr
Sulfur Dioxide	170.0 lb/hr
Nitrogen Oxides	300.0 lb/hr
VOC	9.0 lb/hr

2. Municipal waste only shall be burned in the facility. Wastewater treatment plant sludges or hazardous wastes shall not be incinerated.
3. Hours of operation for the facility shall be 24 hours per day, 7 days per week, 52 weeks per year.
4. An operation and maintenance plan as contained in 17-2.13(7), FAC, shall be submitted with the operating permit applications and be made part of the operating permit.
5. Compliance testing for all criteria shall be conducted in accordance with the methods contained in 40 CFR 60 and 61. A source testing plan shall be submitted to the Department for approval 90 days prior to testing. The Department shall be notified of compliance testing at least 30 days prior to the testing.
6. During the particulate compliance testing, a visible emission standard shall be established by 40 CFR 60, Appendix A, Method 9, as a surrogate compliance method as contained in 17-2.23(3), FAC, and be made a condition of the operating permit.
7. Prior to ninety days before the expiration of this permit, a complete application for an operating permit shall be submitted to the DER Southwest District Office or its designee.

PERMIT NO.: AC 29-47277
APPLICANT: City of Tampa

- 8. The above stated emission limitations are based upon the best estimates of the permittee. Any change in the information submitted in the application regarding facility emissions or changes in the quantity or quality of materials processed that will result in new or increased emissions must be reported to the permitting authority. If appropriate, the permitting authority may then institute procedures to amend the permit conditions.

Expiration Date: December 31, 1984

Issued this 23 day of April 1983

Pages Attached: _____

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

[Signature]
Signature

Best Available Control Technology (BACT) Determination

Amendment

Hillsborough County

The City of Tampa proposes to construct a facility to incinerate municipal solid waste and use the resulting heat energy to produce electricity as a saleable by-product. The facility is to be located at the site of a previous incinerator installation which has been inoperative since December 1979. This venture, known as the McKay Bay Refuse-to-Energy project, is tentatively a two phase plan.

Phase one is the renovation and conversion of the three existing mass burn combustion furnaces into a state-of-the-art resource recovery system. A fourth combustion furnace will be installed plus waste heat boilers, electrostatic precipitators and a condensing steam turbine electric generator. When phase one is completed the facility will have the capability to burn approximately 300,000 tons per year of solid waste and generate 21 megawatts of electricity. This BACT determination applies to phase one of this project.

Phase two will be the installation of two new mass burn combustion furnaces, with heat recovery systems, and will be located adjacent to the renovated system. The new system will be capable of processing 1,000 tons per day of municipal solid waste and, in addition, to producing electricity will allow the recovery of recyclable materials, such as ferrous metals and aluminum. A BACT determination, if applicable, will be made when the plans for phase two of the project are finalized.

The McKay Bay Refuse-to-Energy project, when completed, will be capable of processing 2,000 tons per day of solid waste. The facility is scheduled to operate continuously with a 20 percent downtime allowance for maintenance.

Applicant's estimated net increase in air emissions (tons/year):

Pollutant	Phase I
Particulates	133
SO ₂	745
NO _x	1314
CO	75
HC	39

-3-

had to consider the following:

- 1) Resource recovery facilities have a high potential for severely and adversely affecting air quality. Pollutants of concern are SO_2 , NO_x , particulates, HC, HCL and HF acid gases.
- 2) The thermal destruction of municipal waste is a recognized method of disposal, and A. reduces landfill area requirements; B. eliminates a breeding ground for rodents; C. reduces possibility of ground water contamination; D. allows for the recovery of various metals for recycle.
- 3) Air pollution control technology is currently commercially available and capable of achieving the levels of control necessary to reduce most emissions from resource recovery facilities.
- 4) Calculation of sulfur dioxide emission factors for solid waste based upon the amount of SO_2 generated per million Btu of solid waste burned show the high value of the solid waste SO_2 emission to be slightly higher than the SO_2 emission factor for residual fuel oil containing 0.5 percent sulfur.
- 5) The technology for controlling NO_x emissions from resource recovery facilities is still in the experimental stage.
- 6) The land area needed for a landfill (dump) will be reduced approximately 90 percent. The residue (ash) to be disposed of in a landfill will be 15 percent of the mass but only 5 percent of the volume of waste collected and burned.

The applicant stated the SO_2 emissions would be 170 pounds per hour. This is analogous to burning oil with a sulfur content of 0.43 percent, which, in most cases, would be BACT for a boiler of this size not using a flue gas desulfurization system. Atmospheric dispersion modeling predicts no violation of the SO_2 increment at this rate of SO_2 emissions. The SO_2 emission limit of 170 pounds per hour, is therefore, determined to be BACT.

The emission of NO_x is the result of two chemical processes that occur during combustion. In one case the heat of combustion causes the oxidation of nitrogen in the air, called thermal NO_x . The second case is when the nitrogen in the fuel becomes oxidized, called fuel NO_x . Some of the factors influencing the amount of

Lowest Achievable Emission Rate (LAER) Determination
Amendment

City of Tampa

Hillsborough County

The City of Tampa proposes to construct a facility to incinerate municipal solid waste and use the resulting heat energy to produce electricity as a saleable by-product. The facility is to be located at the site of a previous incinerator installation which has been inoperative since December 1979. This venture, known as the McKay Bay Refuse-to-Energy project, is a two phase plan.

Phase one is the renovation and conversion of the three existing mass burn combustion furnaces into a state-of-the-art resource recovery system. A fourth combustion furnace will be installed plus waste heat boilers, electrostatic precipitators and a condensing steam turbine electric generator. When phase one is completed the facility will have the capability to burn approximately 300,000 tons per year of solid waste and generate 21 megawatts of electricity. This LAER determination applies to phase one of this project.

Phase two will be the installation of two new mass burn combustion furnaces, with heat recovery systems, and will be located adjacent to the renovated system. The new system will be capable of processing 1,000 tons per day of municipal solid waste and, in addition, to producing electricity will allow the recovery of recyclable materials, such as ferrous metals and aluminum. A LAER determination, if applicable, will be made when phase two plans are finalized.

The McKay Bay Refuse-to-Energy project, when completed, will be capable of processing 2,000 tons per day of solid waste. The land area needed for a landfill (dump) will be reduced approximately 90 percent. The residue (ash) to be disposed of in a landfill will be 15 percent of the mass but only 5 percent of the volume of waste collected and incinerated. The facility is scheduled to operate continuously with a 20 percent downtime allowable for maintenance.

Applicant's Estimated net increase in air emissions (tons/year):

Pollutant	Phase I
Particulates	133
SO ₂	745
NO _x	1314
CO ^x	75
HC (VOC)	39

Page Three

area requirements; B. eliminates a breeding ground for rodents; C. reduces possibility of ground water contamination; D. allows for the recovery of various metals for recycle.

3. Air pollution control technology is currently commercially available and capable of achieving the levels of control necessary to reduce most emissions from resource recovery facilities.
4. The construction of a new source, or modification, in a nonattainment area shall apply to the Department for a determination of the Lowest Achievable Emission Rate (LAER) that is applicable to the affected pollutant, which, in this case, is particulate matter (17-2.17(6)(a)FAC).

The Department has determined LAER for particulate matter to be 0.025 grains/DSCF, corrected to 12% CO₂. The emission limit is deemed to be achievable based on test data from a similar operating facility located in Nashville, Tennessee.

Details of the Analysis May be Obtained by Contacting:

Edward Palagyi, LAER Coordinator
Department of Environmental Regulation
Bureau of Air Quality Management
2600 Blair Stone Road
Tallahassee, FL 32301

Recommended By:

Steve Smallwood
for Steve Smallwood, Chief, EAQM

Date:

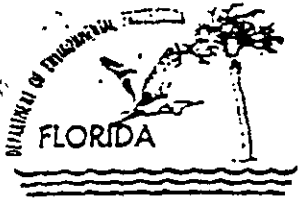
March 19, 1982

Approved:

Victoria Tschinkel
Victoria Tschinkel, Secretary

Date:

March 23, 1982



Department of Environmental Protection

Lawton Chiles
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

Virginia B. Wecherell
Secretary

PERMITTEE

Ms. Nancy McCann
Environmental Coordinator
City of Tampa
City Hall Plaza, 5N
Tampa, FL 33602

PERMIT/CERTIFICATION

GMS ID No: 4029M30071
Permit No: SO29-204205
Date of Issue: 07/30/92
Expiration Date: 07/01/97
County: Hillsborough
Lat/Long: 27°56'51"N
82°25'14"W
Sec/Town/Rge: 20/29S/19E
Project: McKay Bay
Refuse-to-Energy
Facility

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule(s) 17-3, 17-4, 17-701, and 17-702. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans and other documents, attached hereto or on file with the Department and made a part hereof and specifically described as follows:

To operate a solid waste volume reduction and resource recovery facility, referred to as McKay Bay Refuse-to-Energy Facility, subject to the specific conditions attached, burning solid waste and producing electricity, near 34th Street and Clark Street, Tampa, Hillsborough County, Florida.

Replaces Permit No.: SO29-116391

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations and restrictions set forth in this permit, are "permit conditions" and are binding and enforceable pursuant to Sections 403.141, 403.161, 403.727, or 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits; specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in subsections 403.087(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of rights, nor any infringement of federal, State, or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in this permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, are required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

GENERAL CONDITIONS:

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

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

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

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

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

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

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

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

GENERAL CONDITIONS:

11. This permit is transferable only upon Department approval in accordance with Rule 17-4.120 and 17-730.300, Florida Administrative Code, as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

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

13. This permit also constitutes:

- (a) Determination of Best Available Control Technology (BACT)
- (b) Determination of Prevention of Significant Deterioration (PSD)
- (c) Certification of compliance with State Water Quality Standards (Section 401, PL 92-500)
- (d) Compliance with New Source Performance Standards

14. The permittee shall comply with the following:

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

GENERAL CONDITIONS:

(c) Records of monitoring information shall include:

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

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

SPECIFIC CONDITIONS:

1. This facility is classified as a solid waste volume reduction and resource recovery facility, and shall be operated in accordance with all application requirements of Chapters 17-2, 17-3, 17-4, 17-701, and 17-702, Florida Administrative Code.
2. The refuse-to-energy facility shall be operated so as to handle solid waste on a first-in, first-out basis. At no time shall any stored solid waste be allowed to remain unprocessed for more than forty-eight (48) hours unless adequate provisions are made to control flies, rodents and odors.
3. All solid waste, recovered materials or residues handled at the refuse-to-energy facility, shall be stored in a manner so as not to create a fire or safety hazard or a sanitary nuisance, and shall comply with all applicable local and state regulations. Adequate fire control facilities shall be provided. The fire protection monitoring equipment required by the local fire protection authorities shall be installed and in service by October 15, 1992. An updated fire safety survey shall be provided to verify facility compliance.
4. The operating authority shall be responsible for the control of odors and fugitive particulates arising from this operation. Such control shall prevent the creation of these nuisance conditions on adjoining property.
5. Prior to ninety days before the expiration of the Department permit, the permittee shall apply for a renewal of the permit on forms, and in a manner prescribed by the Department.
6. The ash residue from this facility shall be analyzed every three months as specified in F.A.C. Rule 17-702.570. The results shall be submitted annually to the Southwest District Office, C/O the Solid Waste Section, Tampa, Florida.
7. The facility shall be operated to comply with the August 1, 1991 Ash Residue Management Plan by HDR.
8. The permittee shall not accept hazardous waste or any hazardous substance at this site. Hazardous waste is a solid waste identified by the Department as a hazardous waste in Chapter 17-730, Florida Administrative Code. Hazardous substances are those defined in Section 403.703, Florida Statute or in any other applicable state or federal law or administrative rule.

SPECIFIC CONDITIONS:

9. This permit allows the storage and processing of waste tires in accordance with all applicable requirements of Department rules. Fire protection shall be assured by the local fire protection authorities. The operator shall keep the emergency preparedness manual at the site. Waste tires may be processed through the facility up to 3%, by weight, of the permitted capacity subject to the requirements of the DEP air rules.

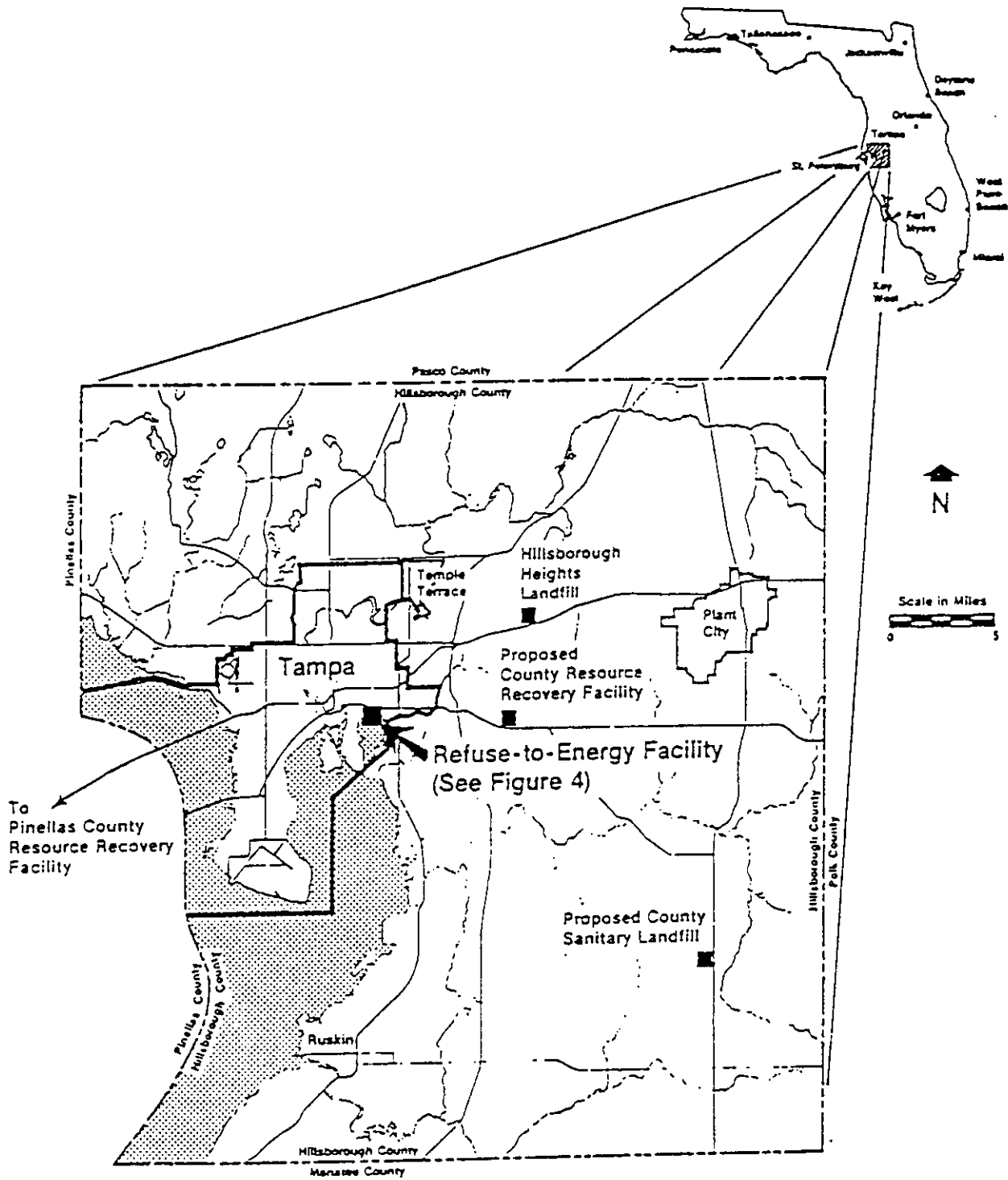
10. Where required by Chapter 471 (P.E.) or Chapter 492 (P.G.), Florida Statutes applicable portions of permit applications and supporting documents which are submitted to the Department for public record shall be signed and sealed by the professionals who prepared or approved them.

11. The permittee shall be aware of and operate under the attached "General Conditions". General Conditions are binding upon the permittee and enforceable pursuant to Chapter 403, Florida Statutes.

12. By acceptance of this Permit, the permittee certifies that he/she has read and understands the obligations imposed by the Specific and General Conditions contained herein.

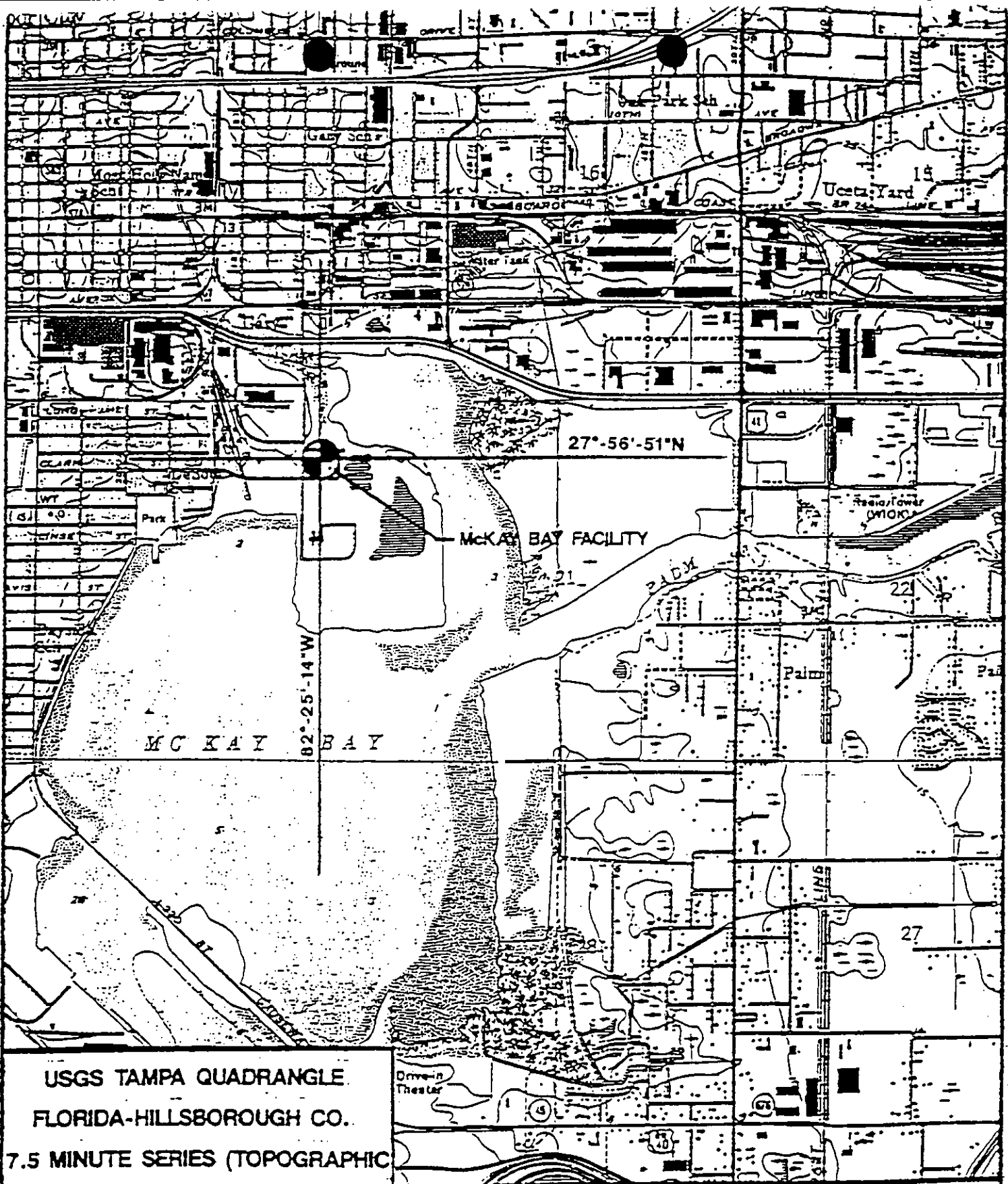
13. This permit is valid for construction and operation of the ash conditioning system submitted by the City of Tampa on August 29, 1994. Construction shall be completed by November 1, 1994. Certification of Construction Completion, Form 17-701.900(2), and Record Drawings shall be submitted within ninety (90) days after all specified construction has been completed.

New OCT - 8 1994



Site Location Map

Figure 1



USGS TAMPA QUADRANGLE
 FLORIDA-HILLSBOROUGH CO.
 7.5 MINUTE SERIES (TOPOGRAPHIC)

CITY OF TAMPA , FLORIDA
McKAY BAY REFUSE TO ENERGY FACILITY
LOCATION PLAN

Date
JAN 95
 Figure
L-1



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET
ATLANTA, GEORGIA 30365

JUL - 2 1982

REF: 4AW-AM

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Dr. Richard D. Garrity, Ph.D
Urban Environmental Coordinator
City of Tampa
306 East Jackson Street
Tampa, Florida 33602

Re: PSD-FL-086

Dear Dr. Garrity:

Review of your July and October, 1981, applications to construct a municipal incinerator-cogeneration facility in Tampa, Florida has been completed. The construction is subject to rules for the Prevention of Significant Air Quality Deterioration (PSD) contained in 40 CFR §52.21. The Florida Department of Environmental Regulation performed the preliminary determination concerning the proposed construction and published a request for public comment on March 22, 1982. Comments were submitted by the City of Tampa, the Department of Interior, and the U. S. Environmental Protection Agency and are contained and responded to in the final determination issued May 28, 1982.

Authority to construct a stationary source is hereby granted for the facility described above, subject to the conditions in the permit to construct (enclosed). This authority to construct is based solely on the requirements of 40 CFR §52.21, the federal regulations governing significant deterioration of air quality. It does not apply to NPDES or other permits issued by this agency or by other agencies. The complete analysis which justifies this approval has been fully documented for future reference, if necessary. Please be advised that a violation of any condition issued as part of this approval, as well as any construction which proceeds in material variance with information submitted in your application, will be subject to enforcement action.

This final permitting decision is subject to appeal under 40 CFR §124.19 by petitioning the Administrator of the U. S. EPA within 30 days after receipt of this letter of approval to construct. The petitioner must submit a statement of reasons for the appeal and the Administrator must decide on the petition within a reasonable time period. If the petition is denied, the permit becomes immediately effective. The petitioner may then seek judicial review.

Any questions concerning this approval may be directed to Richard S. DuBose, Chief, Air Engineering Section, Air and Waste Management Division at (404) 881-7654.

Sincerely yours,

John A. Lutz, Deputy
for Charles R. Jeter
Regional Administrator

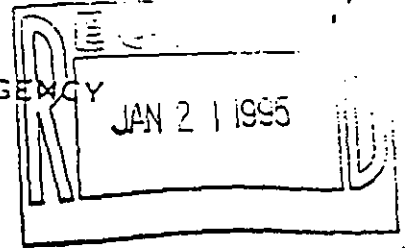
Enclosures



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET
ATLANTA, GEORGIA 30365



PERMIT TO CONSTRUCT UNDER THE RULES FOR THE
PREVENTION OF SIGNIFICANT DETERIORATION OF AIR QUALITY

PSD-FL-086

Pursuant to and in accordance with the provisions of Part C, Subpart 1 of the Clean Air Act, as amended, 42 U.S.C. §7470 et seq., and the regulations promulgated thereunder at 40 C.F.R. §52.21, as amended at 45 Fed. Reg. 52676, 52735-41 (August 7, 1980),

The City of Tampa
306 East Jackson Street
Tampa, Florida 33602

is hereby authorized to construct/modify a stationary source at the following location:

Adjacent McKay Bay
South of Florida Route 60
Tampa, Florida

UTM Coordinates: 360.0 km East, 3091.9 km North

Upon completion of this authorized construction and commencement of operation/production, this stationary source shall be operated in accordance with the emission limitations, sampling requirements, monitoring requirements and other conditions set forth in the attached Specific Conditions (Part I) and General Conditions (Part II).

JUL 2 1982

This permit shall become effective on _____

If construction does not commence within 18 months after the effective date of this permit, or if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time this permit shall expire and authorization to construct shall become invalid.

This authorization to construct/modify shall not relieve the owner or operator of the responsibility to comply fully with all applicable provisions of Federal, State, and Local law.

July 2, 1982

Date Signed

Charles R. Jeter, Deputy for
Charles R. Jeter
Regional Administrator

SPECIFIC CONDITIONS

1. The maximum allowable emissions from the resource recovery facility no. 1 shall be:

Pollutant	Emission Limitation
Sulfur dioxide	170.0 lb/hr
Nitrogen Oxides	300.0 lb/hr
Lead	3.1 lb/hr
Fluoride	6.0 lb/hr
Mercury (vaporous and particulate)	0.6 lb/hr
Beryllium 5 grams/24-hour period	0.00046 lb/hr

2. Municipal waste only shall be burned in the facility.

Wastewater treatment plant sludges or hazardous wastes shall not be incinerated.

3. Electric output for sale to Tampa Electric Company (TECO) shall not exceed 25 MW.

4. Hours of operation for the facility shall be 24 hours per day, 7 days per week, 52 weeks per year.

5. An operation and maintenance plan shall be submitted with the state operating permit application and be made part of this permit.

6. Compliance testing for all criteria and NESHAPS pollutants shall be conducted in accordance with the methods contained in 40 CFR 60 and 61. A source testing plan shall be submitted to the Department of Environmental Regulation for approval 90 days prior to testing. The Department shall be notified of compliance testing at least 30 days prior to the testing.

7. The applicant shall record and keep on file the daily charging rate of the facility and the hours of operation of the facility and shall report this information quarterly to the permitting authority.

8. The applicant shall install and operate continuous opacity monitoring equipment.

GENERAL CONDITIONS

1. The permittee shall notify the permitting authority in writing of the beginning of construction of the permitted source within 30 days of such action and the estimated date of start-up of operation.
2. The permittee shall notify the permitting authority in writing of the actual start-up of the permitted source within 30 days of such action and the estimated date of demonstration of compliance as required in the specific conditions.
3. Each emission point for which an emission test method is established in this permit shall be tested in order to determine compliance with the emission limitations contained herein within sixty (60) days of achieving the maximum production rate but in no event later than 180 days after initial start-up of the permitted source. The permittee shall notify the permitting authority of the scheduled date of compliance testing at least thirty (30) days in advance of such test. Compliance test results shall be submitted to the permitting authority within forty-five (45) days after the complete testing. The permittee shall provide (1) sampling ports adequate for test methods applicable to such facility, (2) safe sampling platforms, (3) safe access to sampling platforms, and (4) utilities for sampling and testing equipment.
4. The permittee shall retain records for all information resulting from monitoring activities and information indicating operating parameters as specified in the specific

conditions of this permit for a minimum of two (2) years from the date of recording.

5. If, for any reason, the permittee does not comply with or will not be able to comply with the emission limitations specified in this permit, the permittee shall provide the permitting authority with the following information in writing within ten (10) business days of such conditions:

- (a) description of noncomplying emission(s).
- (b) cause of noncompliance,
- (c) anticipated time the noncompliance is expected to continue or, if corrected, the duration of the period of noncompliance,
- (d) steps taken by the permittee to reduce and eliminate the noncomplying emission,

and

- (e) steps taken by the permittee to prevent recurrence of the noncomplying emission.

Failure to provide the above information when appropriate shall constitute a violation of the terms and conditions of this permit. Submittal of this report does not constitute a waiver of the emission limitations contained within this permit.

6. Any change in the information submitted in the application regarding facility emissions or changes in the quantity or quality of materials processed that will result in new or increased emissions must be reported to the permitting authority. If appropriate, modifications to the permit

may then be made by the permitting authority to reflect any necessary changes in the permit conditions.

7. In the event of any change in control or ownership of the source described in the permit, the permittee shall notify the succeeding owner of the existence of this permit by letter and forward a copy of such letter to the permitting authority.

8. The permittee shall allow representatives of the State environmental control agency or representatives of the Environmental Protection Agency, upon the presentation of credentials:

- (a) To be allowed reasonable access to the permittee's premises, or other premises under the control of the permittee, where an air pollutant source is located or in which any records are required to be kept under the terms and conditions of the permit;
 - (b) to have access to and copy at reasonable times any records required to be kept under the terms and conditions of this permit, or the Act;
 - (c) to inspect at reasonable times any monitoring equipment of monitoring methods required in this permit;
 - (d) to sample at reasonable times any emission of pollutants;
- and
- (e) to perform at reasonable times an operation and maintenance inspection of the permitted source.

9. All correspondence required to be submitted by this permit to the permitting agency shall be mailed to:

Chief, Air Management Branch

U. S. Environmental Protection Agency

Region IV

345 Courtland Street

Atlanta, Georgia 30365

10. The conditions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

The emission of any pollutant more frequently or at a level in excess of that authorized by this permit shall constitute a violation of the terms and conditions of this permit.

P16 7882486

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL
(See Reverse)

SENT TO		<i>Dale H. Swalldmann</i>	
STREET AND NO.		<i>306 E. Jackson St.</i>	
P.O., STATE AND ZIP CODE		<i>Tampa, FL 33602</i>	
POSTAGE		\$	
CONSULT POSTMASTER FOR FEES	CERTIFIED FEE		0
	SPECIAL DELIVERY		0
	RESTRICTED DELIVERY		0
	OPTIONAL SERVICES		
	RETURN RECEIPT SERVICE		
	SHOW TO WHOM AND DATE DELIVERED		0
	SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY		0
	SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY		0
	SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY		0
TOTAL POSTAGE AND FEES		\$	
POSTMARK OR DATE			
<i>4/26/82</i>			

PS Form 3800, Apr. 1976

PS Form 3811, Jan. 1979

1. SENDER: Complete Items 1, 2, and 3. Add your address in the "RETURN TO" space on reverse.

2. The following service is requested (check one.)

Show to whom and date delivered.....

Show to whom, date and address of delivery.....

RESTRICTED DELIVERY
Show to whom and date delivered.....

RESTRICTED DELIVERY.
Show to whom, date, and address of delivery \$.....

(CONSULT POSTMASTER FOR FEES)

3. ARTICLE ADDRESSED TO:
Dale H. Swalldmann
City of Tampa
306 E. Jackson Street
Tampa, Florida 33602

4. ARTICLE DESCRIPTION:

REGISTERED NO.	CERTIFIED NO.	INSURED NO.
	<i>7682496</i>	

(Always obtain signature of addressee or agent)

I have received the article described above.

SIGNATURE Addressee Authorized agent

C. Thompson

5. DATE OF DELIVERY *4/26/82*

POSTMARK
APR 29 1982

6. ADDRESS (Complete only if requested)

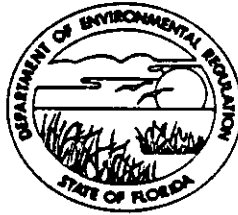
7. UNABLE TO DELIVER BECAUSE:

CLERK'S INITIALS
Lov

☆GPO : 1978-300-459

RETURN RECEIPT, REGISTERED, INSURED AND CERTIFIED MAIL

TWIN TOWERS OFFICE BUILDING
2800 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301



BOB GRAHAM
GOVERNOR

Victoria J. Tschinkel
SECRETARY

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

April 23, 1982

CERTIFIED MAIL-RETURN RECEIPT REQUESTED


Dale H. Twachtmann
City of Tampa
306 East Jackson Street
Tampa, Florida 33602

Dear Mr. Twachtmann:

Enclosed is Permit Number AC 29-47277, dated April 23, 1982
to City of Tampa
issued pursuant to Section 403, Florida Statutes.

Acceptance of the permit constitutes notice and agreement that the Department will periodically review this permit for compliance, including site inspections where applicable, and may initiate enforcement actions for violation of the conditions and requirements thereof.

Sincerely,


C. H. Fancy, P.E.
Deputy Chief
Bureau of Air Quality Management

CHF/pa

cc: Dan Williams, FDER, Southwest District
Hooshang Boostani, Hillsborough County Environmental
Protection Commission
Joe Murdoch, City of Tampa

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.: _____	
To: _____	Loctn.: _____	
From: _____	Date: _____	
Reply Optional [<input checked="" type="checkbox"/>]	Reply Required [<input type="checkbox"/>]	Info. Only [<input type="checkbox"/>]
Date Due: _____	Date Due: _____	

TO: Victoria J. Tschinkel
FROM: C. H. Fancy *C. H. Fancy*
DATE: April 21, 1982
SUBJ: Approval and Signature of Attached Air
Construction Permit Described Below

RECEIVED

APR 22 1982

Office of the Secretary

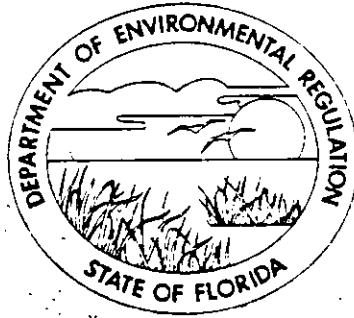
Attached please find one Air Construction Permit for which the applicant is the City of Tampa. The proposed construction is for a 1,000 ton per day resource recovery unit.

The waiver date, after which the permit would be issued by default, is April 25, 1982.

The Bureau recommends your approval and signature.

CHF/pa

Attachment



STATE OF FLORIDA
DEPARTMENT OF
ENVIRONMENTAL REGULATION

CONSTRUCTION
PERMIT

NO. AC 29- 47277

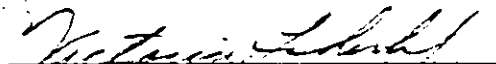
CITY OF TAMPA
MCKAY BAY REFUSE-TO-ENERGY
FACILITY NO. 1

DATE OF ISSUANCE

April 23, 1982

DATE OF EXPIRATION

DECEMBER 31, 1984



VICTORIA TSCHINKEL
SECRETARY

Final Determination

McKay Bay Refuse-to-Energy Project
Hillsborough County

Permit Number:

AC 29-47277

Florida Department of Environmental Regulation
Bureau of Air Quality Management
Central Air Permitting

April 21, 1982

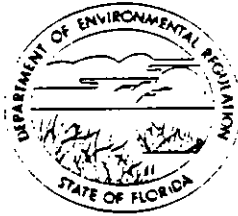
The proposed air pollution construction application from the City of Tampa to build a resource recovery facility has been reviewed by the Bureau. The Department's Intent to Issue the construction permit was published in the Tampa Times on March 22 , 1982. Copies of the preliminary determination were available for public inspection at the Hillsborough County Environmental Protection Commission Office, at the Department's Southwest District Office and at the Bureau of Air Quality Management.

Only one letter of comment was received during the thirty day public notice period. The City of Tampa has requested that another specific condition be added that would allow a procedure for adjusting the emission limitations if the estimated emissions were less than the actual emissions. Since this condition is similar to a general condition in the federal permit and follows the Department's policy, the Bureau agrees with the recommendation.

Therefore, it is recommended that the air construction permit be issued with the above mentioned addition.

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301



BOB GRAHAM
GOVERNOR
VICTORIA J. TSCHINKEL
SECRETARY

APPLICANT: City of Tampa
306 East Jackson Street
Tampa, Florida 33602

PERMIT/CERTIFICATION
NO. AC 29-47277

COUNTY Hillsborough

PROJECT: McKay Bay
Refuse-to-Energy
Facility No. 1

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Chapter 17-2
and 17-4, Florida Administrative Code. The above named applicant, hereinafter called Permittee, is hereby authorized to
perform the work or operate the facility shown on the approved drawing(s), plans, documents, and specifications attached hereto and
made a part hereof and specifically described as follows:

Rehabilitation of the three combustion chambers at the Tampa Municipal
Incinerator and the construction of a fourth 250 TPD combustion chamber
and the modification of the facility to a resource recovery facility.

Attachments:

1. McKay Bay Refuse-to-Energy Project, Application to Construct an
Air Pollution Source, July, 1981.
2. McKay Bay Refuse-to-Energy Project, Application to Construct an Air
Pollution Source, October, 1981.
3. Letter of Richard Garrity to Steve Smallwood, December 10, 1981,
concerning effort to obtain emission offsets.
4. Letter of Richard Garrity to Clair Fancy, February 18, 1982, requesting
hourly emission rate changes.

PERMIT NO.: AC 29-47277
APPLICANT: City of Tampa

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions", and as such are binding upon the permittee and enforceable pursuant to the authority of Section 403.161(1), Florida Statutes. Permittee is hereby placed on notice that the department will review this permit periodically and may initiate court action for any violation of the "Permit Conditions" by the permittee, its agents, employees, servants or representatives.
2. This permit is valid only for the specific processes and operations indicated in the attached drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit shall constitute grounds for revocation and enforcement action by the department.
3. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately notify and provide the department with the following information: (a) a description of and cause of non-compliance; and (b) the period of non-compliance, including exact dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance. The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the department for penalties or revocation of this permit.
4. As provided in subsection 403.087(6), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Nor does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.
5. This permit is required to be posted in a conspicuous location at the work site or source during the entire period of construction or operation.
6. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source, which are submitted to the department, may be used by the department as evidence in any enforcement case arising under the Florida Statutes or department rules, except where such use is proscribed by Section 403.111, F.S.
7. In the case of an operation permit, permittee agrees to comply with changes in department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or department rules.
8. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, plant, or aquatic life or property and penalties therefore caused by the construction or operation of this permitted source, nor does it allow the permittee to cause pollution in contravention of Florida Statutes and department rules, except where specifically authorized by an order from the department granting a variance or exception from department rules or state statutes.
9. This permit is not transferable. Upon sale or legal transfer of the property or facility covered by this permit, the permittee shall notify the department within thirty (30) days. The new owner must apply for a permit transfer within thirty (30) days. The permittee shall be liable for any non-compliance of the permitted source until the transferee applies for and receives a transfer of permit.
10. The permittee, by acceptance of this permit, specifically agrees to allow access to permitted source at reasonable times by department personnel presenting credentials for the purposes of inspection and testing to determine compliance with this permit and department rules.
11. This permit does not indicate a waiver of or approval of any other department permit that may be required for other aspects of the total project.
12. This permit conveys no title to land or water, nor constitutes state recognition or acknowledgement of title, and does not constitute authority for the reclamation of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the state. Only the Trustees of the Internal Improvement Trust Fund may express state opinion as to title.
13. This permit also constitutes:

- Determination of Best Available Control Technology (BACT)
- Determination of Prevention of Significant Deterioration (PSD)
- Certification of Compliance with State Water Quality Standards (Section 401, PL 92-500)

PERMIT NO.: AC 29-47277
APPLICANT: City of Tampa

SPECIFIC CONDITIONS:

1. The maximum allowable emissions from the resource recovery facility No. 1 shall be:

Pollutant	Emission Limitation	
Particulate	0.025 gr/dscf @12% CO ₂	27.9 lb/hr
Sulfur Dioxide		170.0 lb/hr
Nitrogen Oxides		300.0 lb/hr
VOC		9.0 lb/hr

2. Municipal waste only shall be burned in the facility. Wastewater treatment plant sludges or hazardous wastes shall not be incinerated.
3. Hours of operation for the facility shall be 24 hours per day, 7 days per week, 52 weeks per year.
4. An operation and maintenance plan as contained in 17-2.13(7), FAC, shall be submitted with the operating permit applications and be made part of the operating permit.
5. Compliance testing for all criteria shall be conducted in accordance with the methods contained in 40 CFR 60 and 61. A source testing plan shall be submitted to the Department for approval 90 days prior to testing. The Department shall be notified of compliance testing at least 30 days prior to the testing.
6. During the particulate compliance testing, a visible emission standard shall be established by 40 CFR 60, Appendix A, Method 9, as a surrogate compliance method as contained in 17-2.23(3), FAC, and be made a condition of the operating permit.
7. Prior to ninety days before the expiration of this permit, a complete application for an operating permit shall be submitted to the DER Southwest District Office or its designee.

PERMIT NO.: AC 29-47277
APPLICANT: City of Tampa

8. The above stated emission limitations are based upon the best estimates of the permittee. Any change in the information submitted in the application regarding facility emissions or changes in the quantity or quality of materials processed that will result in new or increased emissions must be reported to the permitting authority. If appropriate, the permitting authority may then institute procedures to amend the permit conditions.

Expiration Date: December 31, 1984

Issued this 23 day of April, 1983

_____ Pages Attached.

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

[Signature]

Signature

Best Available Control Technology (BACT) Determination

Amendment

Hillsborough County

The City of Tampa proposes to construct a facility to incinerate municipal solid waste and use the resulting heat energy to produce electricity as a saleable by-product. The facility is to be located at the site of a previous incinerator installation which has been inoperative since December 1979. This venture, known as the McKay Bay Refuse-to-Energy project, is tentatively a two phase plan.

Phase one is the renovation and conversion of the three existing mass burn combustion furnaces into a state-of-the-art resource recovery system. A fourth combustion furnace will be installed plus waste heat boilers, electrostatic precipitators and a condensing steam turbine electric generator. When phase one is completed the facility will have the capability to burn approximately 300,000 tons per year of solid waste and generate 21 megawatts of electricity. This BACT determination applies to phase one of this project.

Phase two will be the installation of two new mass burn combustion furnaces, with heat recovery systems, and will be located adjacent to the renovated system. The new system will be capable of processing 1,000 tons per day of municipal solid waste and, in addition, to producing electricity will allow the recovery of recyclable materials, such as ferrous metals and aluminum. A BACT determination, if applicable, will be made when the plans for phase two of the project are finalized.

The McKay Bay Refuse-to-Energy project, when completed, will be capable of processing 2,000 tons per day of solid waste. The facility is scheduled to operate continuously with a 20 percent downtime allowance for maintenance.

Applicant's estimated net increase in air emissions (tons/year):

Pollutant	Phase I
Particulates	133
SO ₂	745
NO _x	1314
CO	75
HC	39

had to consider the following:

- 1) Resource recovery facilities have a high potential for severely and adversely affecting air quality. Pollutants of concern are SO_2 , NO_x , particulates, HC, HCL and HF acid gases.
- 2) The thermal destruction of municipal waste is a recognized method of disposal, and A. reduces landfill area requirements; B. eliminates a breeding ground for rodents; C. reduces possibility of ground water contamination; D. allows for the recovery of various metals for recycle.
- 3) Air pollution control technology is currently commercially available and capable of achieving the levels of control necessary to reduce most emissions from resource recovery facilities.
- 4) Calculation of sulfur dioxide emission factors for solid waste based upon the amount of SO_2 generated per million Btu of solid waste burned show the high value of the solid waste SO_2 emission to be slightly higher than the SO_2 emission factor for residual fuel oil containing 0.5 percent sulfur.
- 5) The technology for controlling NO_x emissions from resource recovery facilities is still in the experimental stage.
- 6) The land area needed for a landfill (dump) will be reduced approximately 90 percent. The residue (ash) to be disposed of in a landfill will be 15 percent of the mass but only 5 percent of the volume of waste collected and burned.

The applicant stated the SO_2 emissions would be 170 pounds per hour. This is analogous to burning oil with a sulfur content of 0.43 percent, which, in most cases, would be BACT for a boiler of this size not using a flue gas desulfurization system. Atmospheric dispersion modeling predicts no violation of the SO_2 increment at this rate of SO_2 emissions. The SO_2 emission limit of 170 pounds per hour, is therefore, determined to be BACT.

The emission of NO_x is the result of two chemical processes that occur during combustion. In one case the heat of combustion causes the oxidation of nitrogen in the air, called thermal NO_x . The second case is when the nitrogen in the fuel becomes oxidized, called fuel NO_x . Some of the factors influencing the amount of

Lowest Achievable Emission Rate (LAER) Determination
Amendment

City of Tampa

Hillsborough County

The City of Tampa proposes to construct a facility to incinerate municipal solid waste and use the resulting heat energy to produce electricity as a saleable by-product. The facility is to be located at the site of a previous incinerator installation which has been inoperative since December 1979. This venture, known as the McKay Bay Refuse-to-Energy project, is a two phase plan.

Phase one is the renovation and conversion of the three existing mass burn combustion furnaces into a state-of-the-art resource recovery system. A fourth combustion furnace will be installed plus waste heat boilers, electrostatic precipitators and a condensing steam turbine electric generator. When phase one is completed the facility will have the capability to burn approximately 300,000 tons per year of solid waste and generate 21 megawatts of electricity. This LAER determination applies to phase one of this project.

Phase two will be the installation of two new mass burn combustion furnaces, with heat recovery systems, and will be located adjacent to the renovated system. The new system will be capable of processing 1,000 tons per day of municipal solid waste and, in addition, to producing electricity will allow the recovery of recyclable materials, such as ferrous metals and aluminum. A LAER determination, if applicable, will be made when phase two plans are finalized.

The McKay Bay Refuse-to-Energy project, when completed, will be capable of processing 2,000 tons per day of solid waste. The land area needed for a landfill (dump) will be reduced approximately 90 percent. The residue (ash) to be disposed of in a landfill will be 15 percent of the mass but only 5 percent of the volume of waste collected and incinerated. The facility is scheduled to operate continuously with a 20 percent downtime allowable for maintenance.

Applicant's Estimated net increase in air emissions (tons/year):

Pollutant	Phase I
Particulates	133
SO ₂	745
NO _x	1314
CO	75
HC (VOC)	39

area requirements; B. eliminates a breeding ground for rodents; C. reduces possibility of ground water contamination; D. allows for the recovery of various metals for recycle.

3. Air pollution control technology is currently commercially available and capable of achieving the levels of control necessary to reduce most emissions from resource recovery facilities.
4. The construction of a new source, or modification, in a nonattainment area shall apply to the Department for a determination of the Lowest Achievable Emission Rate (LAER) that is applicable to the affected pollutant, which, in this case, is particulate matter (17-2.17(6)(a)FAC).

The Department has determined LAER for particulate matter to be 0.025 grains/DSCF, corrected to 12% CO₂. The emission limit is deemed to be achievable based on test data from a similar operating facility located in Nashville, Tennessee.

Details of the Analysis May be Obtained by Contacting:

Edward Palagyi, LAER Coordinator
Department of Environmental Regulation
Bureau of Air Quality Management
2600 Blair Stone Road
Tallahassee, FL 32301

Recommended By:

Steve Smallwood
for Steve Smallwood, Chief, BAQM

Date:

March 19, 1982

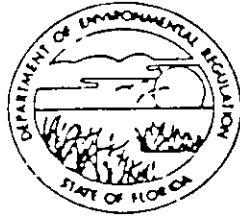
Approved:

Victoria Tschinkel
Victoria Tschinkel, Secretary

Date:

March 23, 1982

DEPARTMENT OF ENVIRONMENTAL REGULATION



SOUTHWEST DISTRICT

7501 HIGHWAY 301 NORTH
TAMPA, FLORIDA 33637-9544

813-985-7402
SunCom - 542-8000

BOB MARTINEZ
GOVERNOR

DALE TWACHTMANN
SECRETARY

DR. RICHARD D. GARRITY
DISTRICT MANAGER

PERMITTEE:

Ms. Nancy McCann
Urban Environmental Coordinator
Office of Environmental
Coordination
City of Tampa
City Hall Plaza, 5N
Tampa, Florida 33602

PERMIT/CERTIFICATION

Permit No.: A029-114760
County: Hillsborough
Expiration Date: 2-11-92
Project: McKay Bay Refuse-
to-Energy Facility
Units 1 thru 4

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rules 17-2 & 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the department and made a part hereof and specifically described as follows:

For the operation of four 250 TPD municipal waste incinerators designated as Units 1, 2, 3, and 4, respectively, from west to east. Each incinerator is equipped with a 37,430 dscfm F. L. Smith Model F300, 2-field electrostatic precipitator to control particulate emissions. Units 1 and 2 share the same stack exhaust. Units 3 and 4 share the same stack exhaust. Each stack exhaust is equipped with a certified opacity monitor.

Location: 107 North 34th St., adjacent to McKay Bay, Tampa

UTM: 17-360.0E 3091.9N NEDS NO: 0127 Point ID:
01-Unit No. 1
02-Unit No. 2
03-Unit No. 3
04-Unit No. 4

Replaces Permit No.: AC29-47277

PERMITTEE:
City of Tampa

Permit/Certification No.: A029-114760
Project: McKay Bay Refuse-to-Energy
Facility Units 1 thru 4

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions" and as such are binding upon the permittee and enforceable pursuant to the authority of Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is hereby placed on notice that the department will review this permit periodically and may initiate the enforcement action for any violation of the "Permit Conditions" by the permittee, its agents, employees, servants or representatives.

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

3. As provided in Subsections 403.087(6) and 403.712(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Nor does it authorize any injury to public or private property or any invasion of personal rights, nor infringement of federal, state or local laws or regulations. This permit does not constitute a waiver of or approval of any other department permit that may be required for other aspects of the total project which are not addressed in the permit.

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

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

PERMITTEE:
City of Tampa

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Project: McKay Bay Refuse-to-Energy
Facility Units 1 thru 4

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

7. The permittee, by accepting this permit, specifically agrees to allow authorized department personnel, upon presentation of credentials or other documents as maybe required by law, access to the premises, at reasonable times, where the permitted activity is located or conducted for the purposes of;

a. Having access to and copying any records that must be kept under the conditions of the permit;

b. Inspecting the facility, equipment, practices, or operations regulated or required under this permit; and

c. Sampling or monitoring any substances or parameters at any location reasonably necessary to assure compliance with this permit or department rules.

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

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

(a) a description of and cause of non-compliance; and

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

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

PERMITTEE:
City of Tampa

Permit/Certification No.: A029-114760
Project: McKay Bay Refuse-to-Energy
Facility Units 1 thru 4

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source, which are submitted to the department, may be used by the department as evidence in any enforcement case arising under the Florida Statutes or department rules, except where such use is proscribed by Section 403.73 and 403.111, Florida Statutes.

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

11. This permit is transferable only upon department approval in accordance with Florida Administrative Code Rules 17-4.12 and 17-30.30, as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the department.

12. This permit is required to be kept at the work site of the permitted activity during the entire period of construction or operation.

13. This permit also constitutes:

- (X) Determination of Best Available Control Technology (BACT)
- (X) Determination of Prevention of Significant Deterioration (PSD)
- () Certification of Compliance with State Water Quality Standards (Section 401. PL 92-500)
- (X) Compliance with New Source Performance Standards

14. The permittee shall comply with the following monitoring and record keeping requirements:

a. Upon request, the permittee shall furnish all records and plans required under department rules. The retention period for all records will be extended automatically, unless otherwise stipulated by the department, during the course of any unresolved enforcement action.

PERMITTEE:
City of Tampa

Permit/Certification No.: A029-114760
Project: McKay Bay Refuse-to-Energy
Facility Units 1 thru 4

14. (con't)

b. The permittee shall retain at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation), copies of all reports required by this permit, and records of all data used to complete the application for this permit. The time period of retention shall be at least three years from the date of the sample, measurement, report or application unless otherwise specified by department rule.

c. Records of monitoring information shall include:

- the date, exact place, and time of sampling or measurements;
- the person responsible for performing the sampling or measurements;
- the date(s) analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

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

SPECIFIC CONDITIONS:

1. Total maximum allowable emissions from all four process lines shall be:

<u>Pollutant</u>	<u>Emission Limitation</u>
Particulate	0.025 gr/dscf, corrected to 12% CO ₂ and 27.9 lbs./hr.
Sulfur Dioxide	170.0 lbs./hr.
Nitrogen Oxides	300.0 lbs./hr.
VOC	9.0 lbs./hr.
Lead	3.1 lbs./hr.
Fluoride	6.0 lbs./hr.
Mercury (vaporous and particulate)	0.6 lbs./hr.
Beryllium	5 grams/24 hour period and 0.00046 lbs./hr.

2. Visible emissions from each exhaust stack shall not exceed 15% opacity.

PERMITTEE:
City of Tampa

Permit/Certification No.: A029-114760
Project: McKay Bay Refuse-to-Energy
Facility Units 1 thru 4

3. Compliance with the emission limitations of Specific Conditions Nos. 1 and 2 shall be determined using EPA Methods 1, 2, 3, 5, 6, 7, 9, 12, 13A/13B, 25A/25B, 101A, and 104 contained in 40 CFR 60, Appendix A and/or adopted by reference in Section 17-2.700, F.A.C. The minimum requirements for stack sampling facilities, source sampling and reporting, shall be in accordance with Section 17-2.700, F.A.C. and 40 CFR 60, Appendix A.

4. Test the emissions for the following pollutant(s) at intervals of 12 months from the date September 18, 1986 and submit 2 copies of test data to the Air Section of the Hillsborough County Environmental Protection Commission Office within forty-five days of such testing (Section 17-2.700(2), Florida Administrative Code (F.A.C.)). Testing of all four units for each pollutant shall be conducted in a consecutive five day period.

(X) Particulates (X) Lead
(X) Opacity*
(X) Sulfur Dioxide
(X) Nitrogen Oxides

* The visible emissions test for each unit shall be at least 60 minutes in duration and shall be conducted simultaneously with the particulate stack test. Both units which share a common stack shall be in operation during the visible emission test.

5. Test the emissions from each unit for the following pollutant(s) six months prior to the expiration date of this permit and submit 2 copies of test data to the Air Section of the Hillsborough County Environmental Protection Commission within forty five days of such testing (Section 17-2.700 (2), Florida Administrative Code (F.A.C.)). Testing of all four units for each pollutant shall be conducted within a consecutive five day period.

(X) Volatile Organic Compounds
(X) Total Fluorides
(X) Mercury (vaporous and particulate)
(X) Beryllium

6. The Hillsborough County Environmental Protection Commission shall be notified in writing 15 days prior to compliance testing.

7. Testing of emissions from each unit must be accomplished within +10% of the maximum charging rate of 10.5 TPH of municipal waste. The actual charging rate during each test run shall be specified in each test report. Failure to submit the input rates or operation at conditions which do not reflect actual operating conditions may invalidate the data (Section 403.161(1)(c), Florida Statutes).

PERMITTEE:
City of Tampa

Permit/Certification No.: A029-114760
Project: McKay Bay Refuse-to-Energy
Facility Units 1 thru 4

SPECIFIC CONDITIONS (con't):

8. Submit for this facility, each calendar year, on or before March 1, an emission report for the preceding calendar year containing the following information as per Section 17-4.14, F.A.C.

- (A) Annual amount of materials and/or fuels utilized.
- (B) Annual emissions (note calculation basis).
- (C) Any changes in the information contained in the permit application.

Duplicate copies of all reports shall be submitted to the Hillsborough County Environmental Protection Commission.

9. Pursuant to 40 CFR 60.7, a written report of excess emissions shall be reported in a quarterly report. For purposes of this report, excess emissions shall be all air pollutant emissions in excess of the permitted levels stated in Specific Conditions 1 and 2 of this permit. Quarterly reports shall be submitted no later than 30 days from the end of each calendar quarter.

10. Four applications to renew this operating permit shall be submitted to the Hillsborough County Environmental Protection Commission 60 days prior to expiration date of this permit.

11. Pursuant to 40 CFR 60.53, Subpart E, the permittee shall record the daily charging rates and hours of operation of each unit.

12. A continuous monitoring system to determine in-stack opacity from each exhaust stack shall be calibrated, operated, and maintained in accordance with Section 17-2.710(1), F.A.C.

13. All reasonable precautions shall be taken to prevent and control generation of unconfined emissions of particulate matter in accordance with the provision in Section 17-2.610 (3), F.A.C.. These provisions are applicable to any source, including, but not limited to, vehicular movement, transportation of materials, construction, alteration, demolition or wrecking, or industrial related activities such as loading, unloading, storing and handling.

14. Pursuant to Section 17-2.250(1), F.A.C., excess emissions resulting from start-up, shutdown, or malfunction of any unit shall be limited to a total of 2 hours in any 24 hour period provided best operational practices are adhered to and the duration of excess emissions are minimized. Best operational practices shall include but are not limited to :

PERMITTEE:
City of Tampa

Permit/Certification No.: A029-114760
Project: McKay Bay Refuse-to-Energy
Facility Units 1 thru 4

SPECIFIC CONDITIONS (con't):

- B. Pollution Control Equipment Parameters:
1. Control Equipment Type: 4 Electrostatic Precipitators
 2. Model Name and No.: F. L. Smith Model F300
 3. Design Flow Rate: 37,430 dscfm/line, 75,000 dscfm/stack
 4. Primary Voltage: 480V
 5. Primary Current: 89A
 6. Secondary Voltage: 25,000-45,000 VDC
 7. Secondary Current: 800 mA
 8. Design Collection Efficiency: 99.45%
 9. Stack Height Above Ground: 160 ft/stack
 10. Stack Diameter: 5.75 ft. each stack
 11. Exit Gas Temperature: 540°F each stack
 12. Exit Gas Moisture: 14%
- C. The following observations, checks, and operations apply to this source and shall be conducted on the schedule specified.

Continuously Monitored

1. Opacity
2. Temperatures-a. ESP Inlet and Outlet
 - b. Furnace
 - c. Bypass
 - d. Kiln Outlet
 - e. Boiler Outlet
 - f. Primary and Secondary Superheater
3. Pressures-
 - a. Primary Superheater Steam
 - b. Secondary Superheater Steam

Every Two Hours

1. Monitor/inspect fly ash removal equipment
2. Read Instruments on Automatic Voltage Controllers (A.V.C.)
3. Observe rapper operation
4. Observe pressures and temperatures throughout system
5. Observe visual emissions
6. Observe all fans for proper operation
7. Inspect precipitator externals for hot spots, air infiltration, etc.
8. Observe fly ash silo operation *if in use.*
9. Monitor ash temperature
10. Primary Voltage
11. Primary current
12. Secondary voltage
13. Secondary current
14. Spark rate rapper frequency
15. Rapper vibrator frequency
16. Rapper vibrator duration

10/11
PERMITTEE:
City of Tampa

Permit/Certification No.: A029-114760
Project: McKay Bay Refuse-to-Energy
Facility Units 1 thru 4

SPECIFIC CONDITIONS (con't):

- (1) Using the least pollution causing material available on site to charge the furnace on start-up.
- (2) Turning on the electrostatic precipitator as soon as possible but no later than two hours after the furnace is ignited.

The permittee shall maintain a log detailing the following information on every start-up of a unit:

- (1) Time (to the nearest minute) at which the furnace is ignited.
- (2) Time (to the nearest minute) at which the electrostatic precipitator is turned on and operational.
- (3) Temperature of the flue gas at the electrostatic precipitator inlet when it is turned on.
- (4) Six minute opacity reading taken from the opacity monitor strip chart beginning at two hours following the ignition of the furnace.

These records are to be maintained for a period of two years and shall be accessible to representatives of the Department and the Environmental Protection Commission of Hillsborough County for their inspection.

15. Operation and Maintenance Plan for Particulate Control (Section 17-2.650(2), F.A.C.)

A. Process Parameters:

1. Source Designator: Units Nos. 1-4
2. Maximum Charging Rate: 250 tons per day per unit, 1000 tons per day total
3. Maximum Heat Input Rate: 2,500 MMBTU/day/line, 9,000 MMBTU/day total
4. Permitted Operating Schedule: 24 Hrs/day, 7 days/wk., 52 wks/yr.
5. Furnace Temperature: 2200-2400° F
6. Fuel Type: Unsorted Municipal Waste
7. Design Fuel Analysis: Carbon-25.6%, Nitrogen-0.58%, Hydrogen-3.7%, Sulfur-0.3%, Oxygen-22.75%, Moisture-30.0%, Non-combustibles-18.0%
8. Combustion Conditions: 50-80% excess air
7-11% O₂ in flue gas
9. Steam Pressure: 650 psig
10. Steam Temperature: 700°F
11. Steam Production: 208,400 lbs/hr. total normal flow rate
12. Maximum Permitted Electrical Output: 25 MW

PERMITTEE:
City of Tampa

Permit/Certification No.: A029-114760
Project: McKay Bay Refuse-to-Energy
Facility Units 1 thru 4

SPECIFIC CONDITIONS (con't):

D. Records:

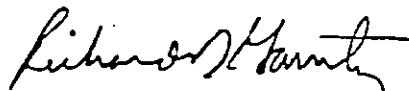
Records of inspections, maintenance, and performance parameters shall be retained for a minimum of two years and shall be made available to the Department or the Hillsborough County Environmental Protection Commission upon request (Subsection 17-2.650(2)(g)5., F.A.C.)

16. Municipal waste and infectious waste shall be burned in the facility. Waste oil collected from spills cleaned up by the Port Authority not exceeding 10,000 gallons per day from tanker trucks or 10 tons per day of fiber drums shall also be burned. Wastewater treatment plant sludges or hazardous wastes shall not be incinerated.

17. Electrical output for sale to Tampa Electric Company (TECO) shall not exceed 25 MW.

Issued this 13 day of Feb
1987.

STATE OF FLORIDA DEPARTMENT OF
ENVIRONMENTAL REGULATION



Richard D. Garrity, Ph.D.
District Manager

PERMITTEE:
City of Tampa

Permit/Certification No.: A029-114760
Project: McKay Bay Refuse-to-Energy
Facility Units 1 thru 4

SPECIFIC CONDITIONS (con't):

Daily

1. Clean opacity monitor lenses
2. Monitor T/R temperature
3. Check gear box reservoir oil levels
4. Monitor charging rate per line
5. Monitor hours of operation per line

Weekly

1. Calibrate opacity monitor
2. Lubricate all external bearings, chains, idlers, sprockets
3. Lubricate fly ash collecting equipment

Quarterly (During Outages)

1. Inspect precipitators internals; observe dust build up, corrosion
2. Check alignment of plates and electrodes
3. Inspect rappers, observe for cracking on rapper frame assembly
4. Clean rapper insulator bushing
5. Clean electrode bushings
6. Check screw conveyor bearings
7. Inspect all field connections, door frames, duct connections for corrosion
8. Replace door frame gaskets as needed
9. Inspect internal structural members for corrosion and integrity
10. Clean relay cabinets, clean motor starter and relay contacts
11. Check hopper heaters for proper operation
12. Check insulator housing heaters for proper operation
13. Lubricate key interlock system
14. Check resistance to ground by meggering
15. Record all control points on AVC Microprocessor

Annual

1. Perform smoke bomb test on housing (optional)
2. Ultrasonic thickness test on hoppers, inlet distribution baffles.
3. Check thickness of inlet electrode wires
4. Check Filter Earth Connection (Ground)
5. Inspect collection plates for corrosion
6. Check external structure members for integrity
7. Scan surfaces with optical pyrometer, checking insulation (running)
8. Run T/R oil analysis

Ms. Nancy McCann
Tampa, Florida 33602

Page Two

When the Order (Permit) is final, any party to the Order has the right to seek judicial review of the Order pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date the Final Order is filed with the Clerk of the Department.

Executed in Tampa, Florida.

Sincerely,



James Wm. Estler
Air Permitting Engineer

JWE/js

cc: HCEPC

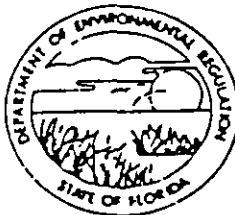
CERTIFICATE OF SERVICE

This is to certify that this NOTICE OF PERMIT and all copies were mailed before the close of business on 2-13-87 to the listed persons.

FILING AND ACKNOWLEDGEMENT
FILED, on this date, pursuant to
§120.52(10), Florida Statutes, with
the designated Department Clerk,
receipt of which is hereby
acknowledged.

Jean Sebesta 2-13-87
Clerk Date

DEPARTMENT OF ENVIRONMENTAL REGULATION



SOUTHWEST DISTRICT

7601 HIGHWAY 301 NORTH
TAMPA, FLORIDA 33637-9544

813-985-7402
SunCom - 542-8000

BOB MARTINEZ
GOVERNOR

DALE TWACHTMANN
SECRETARY

DR. RICHARD D. GARRITY
DISTRICT MANAGER

PERMITTEE:

Ms. Nancy McCann
Urban Environmental Coordinator
Office of Environmental
Coordination
City of Tampa
City Hall Plaza, 5N
Tampa, Florida 33602

PERMIT/CERTIFICATION

Permit No.: A029-114760
County: Hillsborough
Expiration Date: 2-11-92
Project: McKay Bay Refuse-
to-Energy Facility
Units 1 thru 4

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rules 17-2 & 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the department and made a part hereof and specifically described as follows:

For the operation of four 250 TPD municipal waste incinerators designated as Units 1, 2, 3, and 4, respectively, from west to east. Each incinerator is equipped with a 37,430 dscfm F. L. Smith Model F300, 2-field electrostatic precipitator to control particulate emissions. Units 1 and 2 share the same stack exhaust. Units 3 and 4 share the same stack exhaust. Each stack exhaust is equipped with a certified opacity monitor.

Location: 107 North 34th St., adjacent to McKay Bay, Tampa

UTM: 17-360.0E

3091.9N

NEDS NO: 0127

Point ID:

01-Unit No. 1

02-Unit No. 2

03-Unit No. 3

04-Unit No. 4

Replaces Permit No.: AC29-47277