



# CITY OF TAMPA

Bob Martinez, Mayor

McKAY BAY REFUSE-TO-ENERGY PROJECT

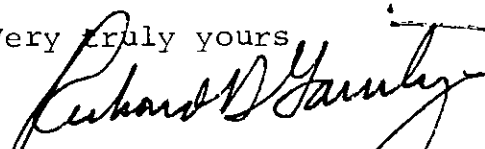
December 18, 1981

Mr. Steve Smallwood  
Chief, Bureau of Air Quality Management  
Department of Environmental Regulation  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32301

Dear Mr. Smallwood:

Enclosed please find a request for waiver of the 90 day time limit for our application to construct an air pollution source signed by Mr. Dale Twachtmann, Administrator of Water Resources and Public Works. Also enclosed is a copy of the City of Tampa executive order authorizing Mr. Twachtmann to act on behalf of the City in this matter.

Very truly yours

  
Dr. Richard Garrity Ph.D.  
Urban Environmental Coordinator

RDG/dw

Enclosures

D.E.R.

DEC 18 1981

SOUTHWEST DISTRICT  
TAMPA

WAIVER OF 90 DAY TIME LIMIT  
UNDER SECTION 120.60(2), FLORIDA STATUTES

License (Permit, Certification) Application No. SC29-48581  
Applicant's Name: City of Tampa

The undersigned has read Section 120.60(2), Florida Statutes, and fully understands the Applicant's rights under that section.

With regard to the above referenced license (permit, certification) application, the Applicant hereby with full knowledge and understanding of (his) (~~her~~) (~~its~~) rights under Section 120.60(2), Florida Statutes, waives the right under Section 120.60(2), Florida Statutes, to have the application approved or denied by the State of Florida Department of Environmental Regulation within the 90 day time period prescribed in Section 120.60(2), Florida Statutes. Said waiver is made freely and voluntarily by the Applicant, is in (his) (~~her~~) (~~its~~) self-interest, and without any pressure or coercion by anyone employed by the State of Florida Department of Environmental Regulation.

This waiver shall expire on the 25th day of February 19 82.

The undersigned is authorized to make this waiver on behalf of the applicant.

  
Signature

DALE TWACHTMANN  
Name of Signee

Sworn to and subscribed  
before me this 17<sup>th</sup> day  
of December 1981.

17 December 1981  
Date



Notary Public, State of Florida at Large  
My Commission Expires Oct. 26, 1984

**DER.**

DEC 18 1981

SOUTHWEST DISTRICT  
TAMPA

Section 120.60, Florida Statutes

(2) When an application for a license is made as required by law, the agency shall conduct the proceedings required with reasonable dispatch and with due regard to the rights and privileges of all affected parties or aggrieved persons. Within 30 days after receipt of an application for a license, the agency shall examine the application, notify the applicant of any apparent errors or omissions, and request any additional information the agency is permitted by law to require. Failure to correct an error or omission or to supply additional information shall not be grounds for denial of the license unless the agency timely notified the applicant within this 30 day period. The agency shall notify the applicant if the activity for which he seeks a license is exempt from the licensing requirement and return any tendered application fee within 30 days after receipt of the original application or within 10 days after receipt of the timely requested additional information or correction of errors or omissions. Every application for license shall be approved or denied within 90 days after receipt of the original application or receipt of the timely requested additional information or correction of errors or omissions. Any application for a license not approved or denied within the 90-day period or within 15 days after conclusion of a public hearing held on the application, whichever is latest, shall be deemed approved and, subject to the satisfactory completion of an examination, if required as a prerequisite to licensure, <sup>2</sup>(the license) shall be issued. The Public Service Commission, when issuing a license, and any other agency, if specifically exempted by law, shall be exempt from the time limitations within this subsection. Each agency, upon issuing or denying a license, shall state with particularity the grounds or basis for the issuance or denial of same, except where issuance is a ministerial act. On denial of a license application on which there has been no hearing, the denying agency shall inform the applicant of any right to a hearing pursuant to s. 120.57.

EXECUTIVE ORDER

NO. 81-4

WHEREAS, the participating governments of Hillsborough County have taken official action to modify the Amendment and Restatement of Interlocal Agreement for Administration, Construction and Operation of a Resource Recovery Program, effective June 8, 1981; and

WHEREAS, the City of Tampa has been designated as the lead agency responsible for proceeding with the implementation of the program; and

WHEREAS, certain employees, funds, and other assets of the program are transferred to the City of Tampa effective this date;

NOW, THEREFORE,

By virtue of the authority vested in me as the Mayor of the City of Tampa by the Revised Charter of the City of Tampa of 1975, and the Laws of the State of Florida, I do hereby prescribe and promulgate by Executive Order an addition to the organization of the administrative structure of the City of Tampa as follows:

PART I -- ESTABLISHMENT OF THE MCKAY BAY REFUSE-TO-ENERGY PROJECT.

Section 1.01 The McKay Bay Refuse-to-Energy Project is hereby established.

Section 1.02 The project is the direct administrative responsibility of the Administrator of Water Resources & Public Works, who will set forth additional administrative structure as necessary.

Section 1.03 All departments of the City that have coordination responsibilities with this project for the care of funds, personnel, and other assets or for assisting in its other efforts are hereby notified of the urgency of the project and the need for decisive and cooperative action to expedite its mission.

PART II. EFFECTIVE DATE

Section 1.01 This order shall take effect on June 8, 1981.

  
Mayor

**D. E. R.**

DEC 18 1981

**SOUTHWEST DISTRICT  
TAMPA**

DATE:

June 8, 1981

City of Tampa, Florida

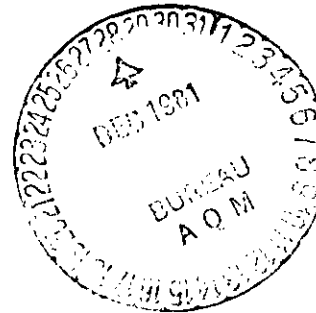
Date: December 18, 1981

To: Clair Fancy

From: Joe Murdoch

Subject: Waiver

~~Bill~~  
John  
JM



Clair:

The attached letter and waiver were transmitted to Dan Williams 12/18/81.

JM/dw

Tampa Times 1/27/84

Nancy

# State pollution control agency to issue stiff incinerator permit

By S. RICK CZACH

Staff Writer

The Florida Department of Environmental Regulation plans to issue the toughest permit needed by the city of Tampa to rebuild and expand the closed city incinerator so it can burn garbage to produce electricity.

By 1989 — four years after the incinerator is scheduled to open — it will be cheaper to burn the city's garbage and sell the electricity than to put the garbage in a landfill, according to Tampa Urban Environmental Coordinator Richard Garrity.

But operating costs could rise because the city won't be producing enough garbage to run the incinerator at peak efficiency since Hillsborough County withdrew from a countywide plan to burn garbage, he added.

DER tightened up the city's plans to limit the amount of particulates spewed out from the incinerator so the emissions will be reduced almost 17 percent, according to Clair Fancy, deputy bureau chief of DER's air permitting section. The extra control devices required by DER will cut the amount of particulates released from 269 tons per year down to 226 tons per year.

The extra control measures also could increase costs, but it is too early to say how much, Garrity said.

The incinerator will be able to burn 1,000 tons of garbage daily, but will be most efficient burning 850 tons daily. But the city of Tampa only will be producing 675 tons of garbage daily when the incinerator starts operations in 1985, Garrity said.

Tampa hopes it will be able to get garbage from other areas so the incinerator can be run at top efficiency, he added. If not, operating costs will go up an undetermined amount, Garrity said.

Garbage disposal will cost each Tampa household \$12.65 a year for the incinerator in 1985 compared with \$10.50 per household to dispose of the garbage in the county landfill, according to city estimates. But the landfill will cost slightly more than the incinerator by 1989, and by the end of the century the landfill will cost more than \$28 a year compared with about \$17 for the incinerator.

The main reason for the savings is selling the electricity produced by burning garbage to Tampa Electric Co., Garrity said.

Even though the incinerator will become one of the largest stationary sources of air pollution in the county, it will contribute no more than 2 percent of the total pollutants going into the county's air, he said.

The electrostatic precipitators and other air pollution control

equipment will make the incinerator's pollution controls "as tight as anything in the country," said Fancy.

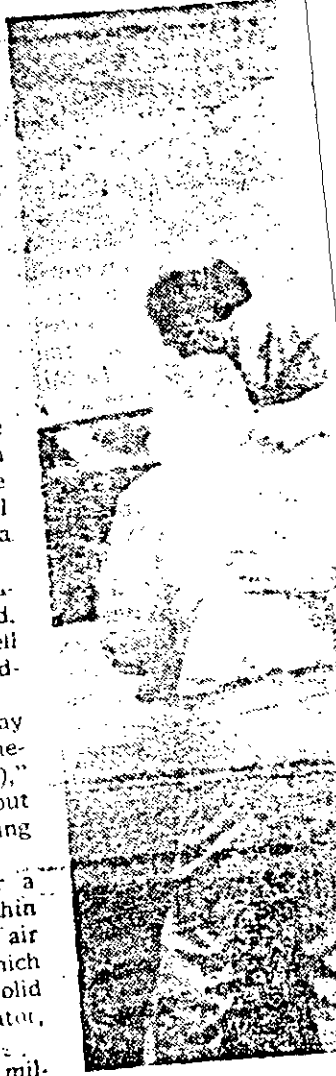
But the city will become the largest stationary source of lead in the county's air. The lone incinerator will produce 16.3 tons of lead a year, according to the city's air permit application. Only 2 tons of lead were released into the county's air in 1979, the last year for which the Hillsborough County Environmental Protection Commission has data available.

But the electrostatic precipitators will remove some of the lead, and the lead emissions will be well below all state and federal standards, Fancy said.

"We feel that this is the best way because we're going to get something for it (the electricity to sell)," Garrity said. "We feel good about the job we're doing in maintaining air quality."

If no one petitions DER for a hearing on the incinerator within two weeks, DER will issue the air pollution construction permit, which is necessary to receive the solid waste permit for the incinerator, Fancy said.

Tampa expects to sell \$123 million in bonds in May to pay for the reconstruction and expansion of the incinerator, and construction should start by this summer, Garrity said.



## Mystery w

A black youth that in August Wayne B. Williams lured him sexually. He also

## Deaths

Hillsborough

Home

ar. T. Blau. T. H. H.

NOTICE OF PROPOSED AGENCY ACTION

The Florida Department of Environmental Regulation (DER) has received applications from and intends to issue Construction Permits to the City of Tampa for the construction/modification of two solid waste incinerators equipped for electric generation to be located near McKay Bay in Hillsborough County, Florida. A determination of Best Available Control Technology and Lowest Achievable Emission Rate was required. Copies of the applications, BACT and LAER Determination, Technical Evaluation, and Departmental Intent are available for inspection at the following offices:

Florida Department of Environmental  
Regulation, Southwest District  
7601 Highway 301 North  
Tampa, Florida 33610

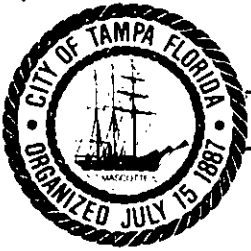
Department of Environmental  
Regulation  
Bureau of Air Quality Mgmt.  
2600 Blair Stone Road  
Tallahassee, Florida 32301

Hillsborough County Environmental  
Protection Commission  
1900 9th Avenue  
Tampa, Florida 33610

Comment on this action shall be submitted in writing to Mr. Bill Thomas of the Tallahassee office, within 30 days of this notice.

*To Purchasing*  
*12/14/81*

To appear in:  
Tampa Tribune  
on 12/20/81



# CITY OF TAMPA

Bob Martinez, Mayor

McKAY BAY REFUSE-TO-ENERGY PROJECT

December 10, 1981

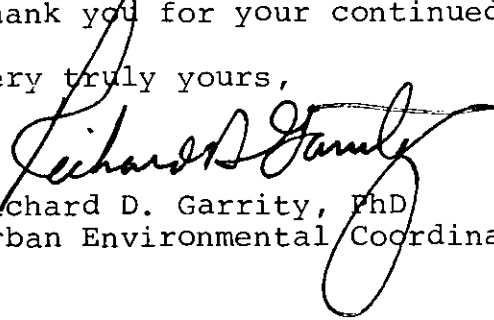
Mrs. Steve Smallwood, Chief  
Bureau of Air Quality Management  
Department of Environmental Regulation  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32301

Dear Mr. Smallwood:

The attached letters are responses to the City of Tampa's inquiries concerning available offsets for Total Suspended Particulate emissions from the proposed resource recovery facilities. The only remaining source of offsets which has not responded to our inquiries is Gardinier, Inc. We will be sending Gardinier a third letter of inquiry in the near future.

We hope these letters portray to you the continuing efforts of the City of Tampa to obtain offsets for our proposed resource recovery facilities. If you have questions concerning this issue, please contact me at (813) 223-8071. Thank you for your continued efforts on our behalf.

Very truly yours,

  
Richard D. Garrity, PhD  
Urban Environmental Coordinator

RDG/dw

Attachments



**General Portland Inc.**



October 20, 1981

Mr. Joe Murdock  
McKay Bay Refuse Project  
City Hall Plaza  
Tampa, Florida 33602

Re: Tampa's Request for Particulate Emission Offsets

Dear Mr. Murdock:

This is in response to your July 10, 1981 request for our company's assistance in providing the City of Tampa Particulate Emissions to offset and allow permitting a new refuse incinerator to generate heat and electricity. General Portland Inc. supports the City of Tampa in its continuing efforts to fund and build a refuse incinerator. We believe the facility could prove both cost effective and a better use of available resources than other concepts.

General Portland's Tampa plant has been proposed as a facility to "bubble" its emissions under recent U.S. Environmental Protection Agency policy and rule-making. We have proceeded with this plan to "bubble" our emissions and have received approvals, as of this date, from the Hillsborough County Environmental Protection Commission and the Florida Department of Environmental Regulation. The plan is presently in review and concurrence at EPA's Regional office in Atlanta. The package is expected to be finalized as a revision to Florida's State Implementation Plan late this year.

General Portland, while supporting the City in its efforts to produce electricity by waste incineration cannot, at this time, provide the offset emission assistance you request due to the ongoing review, approval and proposed rule-making process in which we are actively engaged. However, we wish you success in your efforts.

If we can be of assistance in other areas, please feel free to call on us.

Yours truly,

William H. Winders  
Environmental Manager

WHW:ld



POST OFFICE BOX 111 TAMPA, FLORIDA 33601 TELEPHONE (813) 879-4111

October 16, 1981

Dale H. Twachtmann, Administrator  
Water Resources and Public Works  
City of Tampa  
City Hall Plaza  
Tampa, FL 33602

Dear Mr. Twachtmann:

We have received your request for total suspended particulate (TSP) matter offsets in connection with the planned refuse-to-energy facilities at the Tampa Municipal Incinerator Site. As we have indicated in our discussions with Mr. Joe Murdoch, Tampa Electric Company, at this time, has no available TSP emission offsets from our facilities.

Should you have any questions concerning this matter, please contact Mr. John Ramil at 228-4838.

Sincerely,

A handwritten signature in cursive script, appearing to read "Jerry L. Williams".

Jerry L. Williams  
Manager,  
Environmental Planning

cc: Joe Murdoch

State of Florida

DEPARTMENT OF ENVIRONMENTAL REGULATION

INTEROFFICE MEMORANDUM

*Handwritten signature/initials*

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: Mr. Dale H. Twachtamann, Administrator, Water Resources and Public Work

FROM: Mr. Clair Fancy, Deputy Chief *(Signature)*

DATE: December 7, 1981

SUBJ: Completeness Determination of McKay Bay Refuse-to-Energy Project

This memorandum is to inform your office that the information submitted to the Bureau on October 26, 1981 concerning the McKay Bay Refuse-to-Energy Project has made the state air construction permit applications complete. A copy of the Department's Preliminary Determination and Technical Evaluation, which will be available for a thirty day public notice period, will be sent for your evaluation. This package should be available about December 20, 1981.

If there are any questions concerning this schedule, please contact me at (904) 488-1344.

CF:caa



Henningson, Durham & Richardson

8404 Indian Hills Drive  
Omaha, NE 68114  
(402) 399-1000

October 23, 1981

Mr. Clair Fancy  
Bureau of Air Quality Management  
Twin Towers Building  
2600 Blair Stone Road  
Tallahassee, Florida 32301

Dear Clair Fancy:

Enclosed are ten (10) copies of the City of Tampa's response to the incompleteness determination. Also included is a copy of the new modeling runs.

We would appreciate it if you would check to see that the input used in the data testing that was sent to us is corrected before any more runs are made by the DER. The stack parameters used are not representative of the City of Tampa's case.

Sincerely,

HENNINGSON, DURHAM & RICHARDSON, INC.

Easel Roberts

ER:gr  
Enclosure

cc: Joe Murdoch  
Dick Bell

Architecture  
Engineering  
Planning  
Systems  
Sciences

Alexandria  
Atlanta  
Austin  
Charlotte  
Chicago  
Dallas  
Denver  
Helena  
Houston  
Knoxville  
Minneapolis  
Norfolk  
Omaha  
Pensacola  
Phoenix  
Santa Barbara  
Seattle  
Washington, D.C.



# CITY OF TAMPA

Bob Martinez, Mayor

MCKAY BAY REFUSE-TO-ENERGY PROJECT

October 15, 1981

Steve Smallwood, Chief  
Bureau of Air Quality Management  
Department of Environmental Regulation  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32301

Dear Mr. Smallwood:

Enclosed is the City of Tampa's response to your Incompleteness Determination letter of October 6, 1981. We believe we have addressed the areas of concern which you identified and trust that this information will complete and allow your timely review of our application.

If you have further questions, please contact Joe Murdoch of my staff at (813) 223-8090. Thank you for your continued efforts on our behalf.

Very truly yours,

Richard D. Garrity, PhD  
Urban Environmental Coordinator

RG/dw

## 1) Good Engineering Practice Stack Height

On January 12, 1979, EPA published proposed regulations concerning the determination of good engineering practice (GEP) stack heights. A GEP stack height is defined as:

$$H(\text{GEP}) = H_b + 1.5L$$

Where  $H_b$  is the building height, and  $L$  is the lesser dimension of the building height or width.

Both the height and width of the building are determined from the frontal area of the building projected onto a plane perpendicular to the direction of the wind. In all instances, the GEP stack height is based on the plane projection of the influencing building which result in the greatest justifiable height. Thus, a GEP stack height is calculated for each influencing structure and the final GEP height is the maximum of these heights.

Facility I will have dimensions of approximately 388 feet across the pit area, 205 feet from the front of the tipping floor to the rear of the pollution control area, and 60 feet from the tipping floor to the roof. Based on the preceding definition, the GEP stack height for facility I is 150 feet.

The information concerning Facility II is deduced from proposals for similar facilities in other parts of the country. The best information to date would indicate a building about 160 feet wide x 330 feet long x 65 feet high. This would indicate a GEP stack height of 163 feet. The value used in the modeling of 50 m or 164 feet for simplicity.

2) **Stability and Mixing Height Correction**

The air quality modeling for years 1970-1973 has been rerun with the corrected preprocessed meteorological data. Your inclusion of a 1970 listing was helpful.

The stack parameters as presented in Table 3-3 of the Application were not changed. Pages 3.7 to 3.13 have been reworked to represent the new data and are included. As can be seen the difference between the new data and the existing are minimal.

## Project Impacts

### **Sulfur Dioxide Analysis**

Hillsborough County is presently an attainment area for sulfur dioxide. All of the monitoring data presented was developed by the Hillsborough County Environmental Protection Commission (HCEPC) and is presented in Appendix C. The data is summarized annually in the HCEPC Environmental Quality series. Table 3-3 presents a summary of the sulfur dioxide monitoring data for 1978 and 1979.

**Table 3-4  
Sulfur Dioxide  
(micrograms/cubic meter)  
1-hr Averages from Continuous Analysis**

1978

Station	# of Observations	Minimum Value	Arithmetic Mean	Geometric Mean	Maximum Value
63	7803	2.6	25.7	14.3	584
115	4158	2.6	22.2	10.3	342

1979

Station	# of Observations	Minimum Value	Arithmetic Mean	Geometric Mean	Maximum Value
63	7066	2.6	19.6	10.8	540
115	6466	2.6	25.6	12.3	525

The modeled impacts of the sulfur dioxide emissions are shown in Tables 3-5, 3-6 and 3-7. These values represent the highest values for each of the eight compass direction over the five years of modeling. Included in Tables 3-6 and 3-7 are some of the meteorological parameters associated with the modeled day and the day from which the monitored data was chosen. Every effort was taken to find the closest calendar day and similar wind characteristics so that seasonal variations would be minimized.



Table 3-5  
Sulfur Dioxide  
Maximum Modeled Annual Impacts  
(micrograms/cubic meter)

Direction	Concentration	Distance
N	0.9	1.2
NE	1.0	1.2
E	2.7	1.2
SE	0.8	2.9
S	0.7	2.9
SW	1.3	2.2
W	2.2	2.9
NW	1.3	2.2

The highest three hour impact occurs southwest of the Project. In this case the Project, TECO's Hooker Pt. Powerplant and General Portland Cement Plant are upwind of the Davis Island monitor, Station 63.

If the modeled impact from the Project is added to the highest monitored three hour value, a highest 3 hr. ambient concentration of 186 ug/m<sup>3</sup> occurs. This is significantly below the 3 hr. NAAQS of 1300 ug/m<sup>3</sup>. The Project is modeled to provide 63 ug/m<sup>3</sup> of this amount. The highest three hour impact from the Project alone was modeled to be 82 ug/m<sup>3</sup> at 1.2 km east of the Project.

The highest ground level concentration is computed by adding the highest 24-hour southwest impact to the monitored data indicates a worst 24-hour average of 72 ug/m<sup>3</sup>. The Projects highest twenty-four hour impact is predicted to be 24 ug/m<sup>3</sup> 2.2 km east of the Project.

**Table 3-6**  
**24 Hour Comparison**  
**Sulfur Dioxide Concentration**  
(micrograms/cubic meter)

<u>Direction</u>	<u>Modeled Data</u>			<u>Meteorology Data</u>			<u>Monitored Data</u>				
	<u>Worst Conc.</u>	<u>Day</u>	<u>Yr.</u>	<u>Wind Dir.</u>	<u>Wind Spd. (m/s)</u>	<u>Stability</u>	<u>Concentration Sta. 63</u>	<u>Concentration Sta. 115</u>	<u>Date</u>	<u>Wind Dir.</u>	<u>Wind Spd. (m/s)</u>
N 0, 360	12	175 6/22	74	S	7	4	16	32	7/2/80	SSW- SSE	3.1
NE 40, 50	15	186 7/4	70	SW	4	2-5	18	33	7/2/80	SE-SW	3.1
E 90	24	174 6/23	72	W	6	4-5	5.3	3.2	6/26/80	W	4.2
SE 130, 140	23	72 3/13	70	NW	6	4	8	2.6	3/5/81	NNW	6
S 180	14.3	320 11/15	72	N-NW	5.5	4-6	37	5.3	11/2/80	N-ENE	ND*
SW 220, 230	22	270 9/27	71	NE	5	4-6	50	45	9/25/81	ENE	3.5
W 270	21	306 11/2	72	E	3.5	4-6	39	29	11/23/80	E	ND
NW 310, 320	16	136 5/16	74	ESE	5	3-6	18	ND	5/4/81	SE	2.7

\*ND = No Data

**Table 3-7**  
**3 Hour Comparisons**  
**Sulfur Dioxide Concentrations**  
 (micrograms/cubic meter)

Modeled Data					Meteorology Data			Monitored Data					
<u>Direction</u>	<u>Worst</u>		<u>Day</u>	<u>Yr.</u>	<u>Wind</u>		<u>Stability</u>	<u>Concentration</u>		<u>Period</u>	<u>Date</u>	<u>Dir.</u>	<u>Spd.</u>
	<u>Conc.</u> (ug/m <sup>3</sup> )	<u>Period</u>			<u>Dir.</u>	<u>Spd.</u> (m/s)		<u>Sta. 63</u>	<u>Sta. 115</u>				
N 0, 360	76	5	208 2/3	70	V**	4.3	2-6	14	26	4	8/13/80	S	3
NE 40, 50	75	5	90 3/31	74	SE- NW	3.3	2-7	71	ND*	2	5/10/81	SW	3.5
E 90	82	4	124 5/23	72	W	3	2-7	ND	2.1	5	5/28/81	W	3.1
SE 130, 140	67.9	4	104 4/14	71	NW	6	3-7	37	29	4	4/22/81	W/NW	2.7
S 180	52	5	297 10/24	73	N	4	3-7	2.2	5.4	3	10/12/80	N	2.7
SW 220, 230	63.4	4	270 9/27	71	NE	4	3-6	56	9.7	4	10/6/80	ENE	2.7
W 270	73	4	110 4/20	74	E	3.5	2-7	ND	29	5	5/27/81	ENE	4.5
NW 310, 320	76	4	230 9/18	71	E-SE	3	1-7	47	ND	1	9/18/80	SE	2.5

\*ND = No Data

\*\*Variable

The highest annual impact is 1.2 km to the east in 1971 with a value of 2.7 ug/m<sup>3</sup>. The highest annual impacts for 1970-1974 varied from 1.7 to 2.7 ug/m<sup>3</sup>. The monitored annual arithmetic average were 25.7 and 19.6 ug/m<sup>3</sup> in 1978 and 1979 respectively at station 63. Station 115 registered annual averages of 22.2 and 25.0 ug/m<sup>3</sup> in 1978 and 1979 respectively. The summation of the annual impact and the monitored annual average leads to a highest annual concentration of about 30 ug/m<sup>3</sup>. This is significantly below the federal secondary standard of 80 ug/m<sup>3</sup> and the Florida Standard of 60 ug/m<sup>3</sup>.

There are significant sulfur dioxide sources to the east of the Project site. The recent CONSRV PSD application analysed the impact CONSRV plus other significant sources would have in various directions. The CONSRV case VI analysed a SSE wind. This would align several facilities with the project site. The CONSRV results indicate that there would be essentially no impact from those facilities on the projects impact area.

The only other increment consuming source affecting the impact area is TECO's Big Ben Powerplant. This powerplant is being converted to coal and was granted a PSD permit. A letter from EPA to Mayor Bob Martinez of a Public Notice of the change is found in Appendix D. The Public Notice indicated that the maximum increment consumed by the proposed modification is as follows:

	Annual	24 Hour	3 Hour
SO <sub>2</sub>	5 %	38 %	32 %

A summary of Tables 3-5, 3-6, and 3-7, shows that the project's maximum increment consumption of the total allowed will be:

<u>Annual</u>	<u>24 Hour</u>	<u>3 Hour</u>
2.7 ug/m <sup>3</sup>	24 ug/m <sup>3</sup>	82 ug/m <sup>3</sup>
or	or	or
14 %	26 %	16 %

Baseline was set by the TECO modification. There are two new PSD sources proposed for Hillsborough County, CONSRV and the McKay Bay Refuse-to-Energy Project. CONSRV's data indicates no impact on the Project's impact area and TECO's impact was presented previously. Table 3-8 shows our estimate of the increment that has or will be consumed.

**Table 3-8  
Total Increment Consumed**

	Annual		24 Hour		3 Hour	
	ug/m <sup>3</sup>	Percent	ug/m <sup>3</sup>	Percent	ug/m <sup>3</sup>	Percent
McKay Bay	2.7	14	24	26	82	16
CONSRV	0	0	0	0	0	0
TECO	<u>1.0</u>	<u>5</u>	<u>35</u>	<u>38</u>	<u>164</u>	<u>32</u>
Total	3.7	14	59	65	246	48
Allowed	20		91		512	

Table 3-9 shows the increment used by the project and TECO added to the HCEPC monitored ambient conditions. This assumes that the ambient maximums plus both source maximums occur at the same place and time.

**Table 3-9**  
**Highest Predicted Ambient Concentrations**  
**Sulfur Dioxide**  
 (micrograms/cubic meter)

	<u>Annual</u>	<u>24 Hour</u>	<u>3 Hour</u>
Ambient (1979)	25.5	126	597
TECO	1.0	35	164
Project	<u>2.1</u>	<u>22</u>	<u>77</u>
Total	28.6	183	838
Standards			
EPA	80	365	1300
Florida	50	265	1300

**Summary of Sulfur Dioxide Analysis**

As was shown in Tables 3-8 and 3-9 the McKay Bay Refuse-to-Energy Project will not violate the Class II increments nor will it lead to a violation of either national or state ambient air quality standards.

### 3) Rural/Urban Classification

The proposed revisions to the guideline of air quality models proposed two methods to determine whether an area should be classified rural or urban with respect to air quality modeling. The first method is based on the land use of the area. The other is based on the population density. The recommended method is the land use procedure.

The land use procedure is based on the work of August H. Auer, Jr.(1) This method assigns land use classifications to the area within a three km radius circle. In the land use procedure the land classifications shown in Table 1 are divided into two groups. Classifications I1, I2, C1, R2 and R3 are used to denote "urban" areas. The other classifications are all used to denote "rural" areas. If more than 50% of the area is "urban" then urban dispersion coefficients should be used.

This method was applied to the area surrounding the project site. The map of the classifications is shown in Figure 1. In the analysis, the areas were plotted on 100 squares/square inch graph paper and the area for each land classification summed. Each square unit of land represents 3.2 acres or 1.3 hectares.

As is shown in Table 2, the area associated with the urban classification land uses represent more than 50% of the area of concern. This analysis in our opinion justifies use of the urban dispersion coefficients for the modeling.

(1) Auer, A.H. "Correlation of Land Use and Cover with Meteorological Anomalies" J. Applied Meteorology, Vol. 17. pp. 636-643, 1978.

**Table 1**  
**Identification and Classification**  
**of Land Use Types**

Type	Use and Structures	Description	Vegetation
I1	Heavy Industrial	Major chemical, steel and fabrication industries; generally 305 story buildings, flat roofs	Grass and tree growth extremely rare; 5% vegetation
I2	Light-Moderate Industrial	Rail yards, truck depots, warehouses, industrial parks, minor fabrications; generally 1-3 story buildings, flat roofs	Very limited grass, trees almost total absent; 5% vegetation
C1	Commercial	Office and apartment buildings, hotels; 10 story heights, flat roofs	Limited grass and trees; 15% vegetation
R1	Common Residential	Single family dwelling with normal easements; generally one story, pitched roof structures; frequent driveways	Abundant grass lawns and light-moderately wooded; 70% vegetation
R2	Compact Residential	Single, some multiple, family dwelling with close spacing; generally 2 story, pitched roof structures; garages (via alley), no driveways	Limited lawn sizes and shade trees; 30% vegetation
R3	Compact Residential	Old multi-family dwellings with close ( 2m) lateral separation; generally 2 story, flat roof structures; garages (via alley) and ashpits, no driveways	Limited lawn sizes, old established shade trees; 35% vegetation
R4	Estate Residential	Expansive family dwelling on multi-acre tracts	Abundant grass lawns and lightly wooded; 80% vegetation
A1	Metropolitan Natural	Major municipal, state or federal parks, golf courses, cemeteries, campuses; occasional single story structures	Nearly total grass and lightly wooded; 95% vegetation
A2	Agricultural Rural		Local crops (e.g., corn, soybean); 95% vegetation
A3	Undeveloped	Uncultivated; wasteland	Mostly wild grasses and weeds, lightly wooded; 90% vegetation
A4	Undeveloped Rural		Heavily wooded; 95% vegetation
A5	Water Surfaces	Rivers, lakes	





Table 2  
Impact Area Land  
Classification

<u>Urban</u> <u>Classification</u>		<u>Rural</u> <u>Classification</u>	
	<u>Units</u>		<u>Units</u>
I1	0	R1	78
I2	936	R4	0
C1	83	A1	66
R2	50	A2	0
R3	414	A3	245
		A4	0
		A5	504
	<hr/>		<hr/>
	1483		893

#### 4) **Incorrect Increment Designation**

The reference to the increment consumed by a TECO facility is not correct. The reference to the Gannon Power Plant on page 3-11 should be changed to Big Bend.

#### 5) **Modeling Inconsistency**

Certain values presented in the forms are incorrect. The error on Facilities 1 application was the exit temperature which should have been 440°F. The errors for Facility 2 were the flue diameter which should be 6.0, and the exit velocity which should be 60 feet/second, and the exit volume should be about 103,000 A CFM.

#### 6) **Moisture Content**

The moisture content of the exhaust gas will vary with the fuel. Figure 2 is a conversation sheet from a discussion with a vendor offering the Volund Technology under a full service procurement. The values were those which were developed for the Air Quality analysis. The moisture content has been identified.

# HDR

Henningson, Durham & Richardson

## TELEPHONE CONVERSATION RECORD

Project Hillsborough Co Project No. 1940-02-07

Time 11:00 am Date 3/24/81 Arch./Engr. E. Roberts

Call to \_\_\_\_\_ Call from Bob   
312 -

Discussion, Agreement &/or Action \_\_\_\_\_

Bob returned my call concerning the expected emissions. Their tests indicate the following ranges

PM	0.83 - 2.1 gr/scf @ 7% CO <sub>2</sub>	15 - 21% H <sub>2</sub> O
		8 - 9.6% O <sub>2</sub> @ 32°F
SO <sub>2</sub>	0.38 - 0.73 gr/scf	"
NO <sub>2</sub>	175 - 250 ppm	
CO	18 - 26 ppm	
HC	19 - 24 ppm	

Stack Ht ≈ 200 ft  
gas exit T ≈ 450°F use 440°F  
gas exit V ~ 70 ft/s  
Q CFM ~ 65K - 75K / 250 TPD  
Use

## 7) Offset Aquisition Best Effort

Included here is information which details the "best efforts" which the City has undertaken to obtain Total Suspended Particulate (TSP) offsets for the proposed refuse to energy project.

Chapter 6 of the City's application to construct an Air Pollution Source details the actions taken by the City to obtain offsets for the facilities. First, the City has contacted all major emitters of TSP (greater than 100 tons per year) in the Hillsborough County non-attainment area, and has asked to be informed of any TSP offsets which may be available. Copies of the original letters of inquiry are enclosed.

Nitram Incorporated indicated that offsets may be available pending a modification of their facilities. Nitram has requested that further discussions of the possibility of transfer of offsets be conducted when their facility modifications are completed. Florida Steel Corporation indicated that they have no TSP offsets available.

To ensure the major emitters' awareness of the City's request for TSP offsets, follow-up letters were sent to those emitters who did not respond to the original request. Copies of these follow-up letters are enclosed.

The City will continue to inform D.E.R. of progress in its attempts to solicit offsets from available sources.

An additional source of offsets which may become available to the City is the now-closed Tampa Municipal Incinerator. As you are aware, the City, with the concurrence of the Hillsborough County Environmental Protection Commission and the Florida Department of Environmental Regulation (D.E.R.), proposed a modification to the Hillsborough County particulate non-attainment State Implementation Plan (SIP) which would allow the proposed facilities to use offsets from the closed incinerator. At this point in time the S.I.P. has been transmitted to the Environmental Protection Agency (EPA) for their review. The City will continue to monitor the SIP's progress.

We trust the DER will recognize the substantial efforts which the City has made to obtain TSP offsets for the proposed facilities. The City will continue to put forth its best efforts and will continue to inform the Department of progress in this area.



# CITY OF TAMPA

Bob Martinez, Mayor

Water Resources and Public Works

Dale Twachtmann  
Administrator

July 16, 1981

Nitram, Inc.  
Mr. John C. Thompson  
P.O. Box 2968  
Tampa, FL 33601

Dear Mr. Thompson:

The local governments, with the City of Tampa as the lead agency, have embarked on an aggressive plan to dispose of solid waste by incineration with recovery of heat energy and production of electricity. This plan would involve a conversion of the existing Tampa Municipal Incinerator and the construction of a second, new refuse-to-energy facility at the Incinerator site.

The State of Florida non-attainment air emissions regulations require offsets for emissions on non-attainment pollutants from sources locating in non-attainment areas. Because the Incinerator site is located within a Total Suspended Particulate matter (TSP) non-attainment area, offsets for TSP emissions will be required.

By this letter, the City of Tampa is seeking TSP offsets from available sources. If your firm possesses available TSP offsets from reduced emissions at your facility, or from other means, please contact Joe Murdoch at 813-223-8090.

Your time and consideration are appreciated.

Sincerely,

  
Dale H. Twachtmann, Administrator  
Water Resources & Public Works

DHT/ara

# NITRAM, INC.

5321 Hartford St • P.O. Box 2968 • Tampa, Florida 33601 • Phone (813) 626-2181

July 17, 1981

Mr. Dale H. Twachtmann, Administrator  
Water Resources and Public Works  
City Hall Plaza  
Tampa, FL 33602

Dear Mr. Twachtmann:

In reference to your July 10, 1981, letter to me concerning the possibility of obtaining from Nitram, Inc. TSP offsets for the new refuse-to-energy facility at the Incinerator site, there is a distinct likelihood that we may have some available in the near future. I have contacted Mr. Joe Murdoch and he suggested that I forward this information to you.

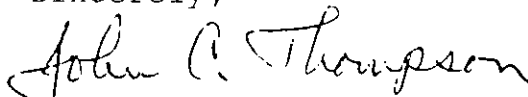
Nitram presently has two ammonium nitrate prill towers which produce material classed as low density. However, in August, 1981, a project will begin which will convert one of our prill towers such that high density material will be produced. One of the benefits of this conversion is an overall reduction of our particulate emissions by a substantial amount. This, of course, could very possibly make available a significant number of TSP offsets. The conversion project is scheduled for completion in early fall, 1981.

As you know, TSP offsets in a non-attainment area are valuable commodities which we plan to bank as soon as they are realized.

In any case, Mr. Twachtmann, we will be glad to meet with you at your convenience to discuss the possibility of making any or all of our potential TSP offsets available to the City of Tampa. At that time, we can go into more detail about your needs, what we may have available and any other pertinent items.

If you have any questions or comments, please do not hesitate to let me know.

Sincerely,



John C. Thompson  
Director of Pollution Control  
and Safety

JCT:ml

cc: W.H. Blevins

bcc: Roger Schwenke





# CITY OF TAMPA

Rob Martinez, Mayor

MCKAY BAY REFUSE TO ENERGY PROJECT

July 27, 1981

John C. Thompson  
Director of Pollution Control and Safety  
Nitram, Inc.  
5321 Hartford Street  
P. O. Box 2968  
Tampa, Florida 33601

Dear Mr. Thompson:

Thank you for your July 17, 1981, response to our inquiries concerning available TSP offsets. As we explained, the City of Tampa will soon be submitting an application for a permit for air emissions from the planned refuse to energy project.

Subsequent to submission of the permit application, we will be contacting you to discuss the possibility of the transfer of offsets for TSP to the City of Tampa.

Thank you for your cooperation on this matter.

Very truly yours,

Richard D. Garrity, PhD  
Urban Environmental Coordinator

RDG/kpc  
cc: Dale Twachtmann  
Joe Murdoch  
Max Stipanovich

# NITRAM, INC.

421 Hartford St. • P.O. Box 2968 • Tampa, Florida 33601 • Phone (813) 626-2181

October 14, 1981

Mr. Joe Murdock  
c/o McKay Bay Refuse-to-Energy Project  
5th Floor, North Wing  
City Hall Plaza  
Tampa, FL 33602

Dear Mr. Murdock:

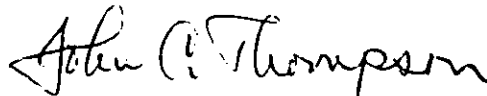
As we discussed on the phone yesterday, I will be glad to discuss with you, on behalf of Nitram, Inc., the possibility of making available any TSP offsets we may have after we complete our construction project.

As you recall, we should be through with our construction no later than the middle of November. At that time, we will operate our new facility, work the bugs out of it, and then conduct a compliance test on the facility to satisfy state and county regulatory agency requirements. When these steps are completed, we will have a better idea of the number of offsets we will be able to bank.

Afterward, I will be glad to get in touch with you so that we may set a mutually agreeable date to discuss the entire program in more detail.

In the meantime, if you have any questions or if I can help in any way, please feel free to get in touch with me.

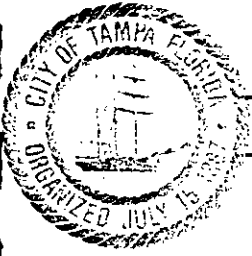
Sincerely,



John C. Thompson  
Director of Pollution Control

JCT:ml

cc: Mr. Roger Schwenke  
Mr. W. H. Blevins



# CITY OF TAMPA

Bob Martinez, Mayor

July 10, 1981

Mr. J. C. Williams, Manager  
Environmental Planning  
Tampa Electric Company  
P.O. Box 111  
Tampa, FL 33601

Dear Mr. Williams:

The local governments, with the City of Tampa as the lead agency, have embarked on an aggressive plan to dispose of solid waste by incineration with recovery of heat energy and production of electricity. This plan would involve a conversion of the existing Tampa Municipal Incinerator and the construction of a second, new refuse-to-energy facility at the Incinerator site.

The State of Florida non-attainment air emissions regulations require offsets for emissions on non-attainment pollutants from sources located in non-attainment areas. Because the Incinerator site is located within a Total Suspended Particulate matter (TSP) non-attainment area, offsets for TSP emissions will be required.

By this letter, the City of Tampa is seeking TSP offsets from available sources. If your firm possesses available TSP offsets from reduced emissions at your facility, or from other means, please contact Joe Burgoon at 813-223-8090.

Your time and consideration are appreciated.

Sincerely,

Dale M. Schwabmann, Administrator  
Water Resources & Public Works

DMT/ora



# CITY OF TAMPA

Bob Martinez, Mayor

MCKAY BAY REFUSE-TO-ENERGY PROJECT

October 14, 1981

J. L. Williams, Manager  
Environmental Planning  
Tampa Electric Company, Tampa  
P.O. Box 1111  
Tampa, FL 33601

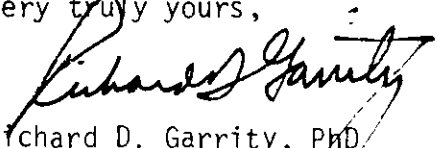
Dear Mr. Williams:

As you are aware, the City of Tampa has embarked on an aggressive plan to dispose of solid waste by incineration with recovery of heat energy and production of electricity. This plan would involve a conversion of the existing Tampa Municipal Incinerator and the possible construction of a second, new refuse-to-energy facility at the Incinerator site.

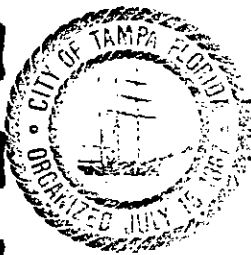
The State of Florida non-attainment air emission regulations required that the City seek offsets for the proposed facilities. Your company was contacted by the City (July 10, 1981) to determine if TECO has available TSP offsets which could be dedicated to the City of Tampa projects. At this time, the City has not received a response to this inquiry. If Tampa Electric does possess available TSP offsets we would appreciate notification at your earliest possible convenience. Please contact Joe Murdoch, Resource Recovery Management Analyst, at (813) 223-8090.

Thank you for your time and consideration.

Very truly yours,

  
Richard D. Garrity, PhD  
Urban Environmental Coordinator

RG/dw



# CITY OF TAMPA

Bob Martinez, Mayor

July 10, 1981

Mr. Robert O'Neill, Manager  
Marketing Service  
Florida Steel Corp.  
P.O. Box 25528  
Tampa, FL 33623

Dear Mr. O'Neill:

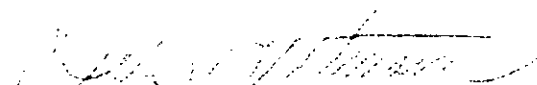
The local governments, with the City of Tampa as the lead agency, have embarked on an aggressive plan to dispose of solid waste by incineration with recovery of heat energy and production of electricity. This plan would involve a conversion of the existing Tampa Municipal Incinerator and the construction of a second, new refuse-to-energy facility at the Incinerator site.

The State of Florida non-attainment air emissions regulations require offsets for emissions on non-attainment pollutants from sources locating in non-attainment areas. Because the Incinerator site is located within a Total Suspended Particulate matter (TSP) non-attainment area, offsets for TSP emissions will be required.

By this letter, the City of Tampa is seeking TSP offsets from available sources. If your firm possesses available TSP offsets from reduced emissions at your facility, or from other means, please contact Joe Jackson at 813-223-8090.

Your time and consideration are appreciated.

Sincerely,

  
Dale H. Swachtmann, Administrator  
Water Resources & Public Works

DH/ura

FLORIDA STEEL  
CORPORATION

Steel when you want it

Phone 813/251 8811

## GENERAL OFFICES

1715 CLEVELAND ST. • P. O. BOX 23328 • TAMPA, FLA. 33623

July 14, 1981

Mr. Dale H. Twachtmann, Administrator  
Water Resources & Public Works  
City of Tampa  
City Hall Plaza  
Tampa, FL 33602

Dear Mr. Twachtmann:

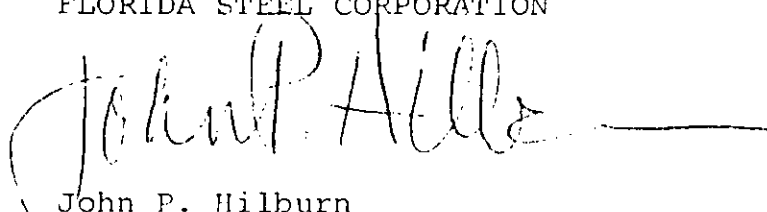
We have at hand your letter of July 10, 1981, addressed to our Mr. Robert O'Neil.

We do regret that Florida Steel has no Total Suspended Particulate offsets which might be available to the city incinerator, which is located within the same TSP non-attainment area as is our Tampa steel mill.

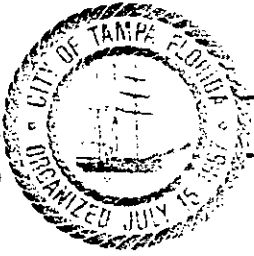
We do wish you well in this very important project, however.

Yours very truly,

FLORIDA STEEL CORPORATION

  
John P. Hilburn  
Vice President, Environmental Control

JPH:ah



# CITY OF TAMPA

Bob Martinez, Mayor

July 19, 1981

Henry Winters, Environmental Manager  
General Portland, Inc.  
Florida Division  
P.O. Box 22346  
Tampa, FL 33622

Dear Mr. Winters:

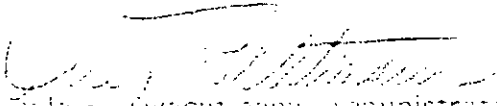
The local governments, with the City of Tampa as the lead agency, have embarked on an aggressive plan to dispose of solid waste by incineration with recovery of heat energy and production of electricity. This plan would involve a conversion of the existing Tampa Municipal Incinerator and the construction of a second, new refuse-to-energy facility at the incinerator site.

The State of Florida non-attainment air emissions regulations require offsets for emissions on non-attainment pollutants from sources locating in non-attainment areas. Because the incinerator site is located within a Total Suspended Particulate matter (TSP) non-attainment area, offsets for TSP emissions will be required.

By this letter, the City of Tampa is seeking TSP offsets from available sources. If your firm possesses available TSP offsets from reduced emissions at your facility, or from other means, please contact Joe Murdoch at 813-225-8090.

Your time and consideration are appreciated.

Sincerely,

  
Dale H. Fwachiniani, Administrator  
Water Resources & Public Works

DHF/era



# CITY OF TAMPA

Bob Martinez, Mayor

MCKAY BAY REFUSE-TO-ENERGY PROJECT

October 14, 1981

Henry Winders  
Environmental Manager  
General Portland, Inc.  
Florida Division  
P.O. Box 22348  
Tampa, FL 33622

Dear Mr. Winders:

As you are aware, the City of Tampa has embarked on an aggressive plan to dispose of solid waste by incineration with recovery of heat energy and production of electricity. This plan would involve a conversion of the existing Tampa Municipal Incinerator and the possible construction of a second, new refuse-to-energy facility at the Incinerator site.

The State of Florida non-attainment air emission regulations required that the City seek offsets for the proposed facilities. Your company was contacted by the City (July 10, 1981) to determine if General Portland has TSP offsets which could be dedicated to the City of Tampa projects. At this time, the City has not received a response to this inquiry. If General Portland does possess available TSP offsets we would appreciate notification at your earliest possible convenience. Please contact Joe Murdoch, Resource Recovery Management Analyst, at (813) 223-8090.

Thank you for your time and consideration.

Very truly yours,

Richard D. Garrity, PhD  
Urban Environmental Coordinator

RG/dw





# CITY OF TAMPA

Bob Martinez, Mayor

July 19, 1981

Allen Morrison, Environmental and  
Chemical Services Manager  
Aristich, Inc.  
P.O. Box 6267  
Tampa, FL 33601

Dear Mr. Morrison:

The local governments, with the City of Tampa as the lead agency, have embarked on an aggressive plan to dispose of solid waste by incineration with recovery of heat energy and production of electricity. This plan would involve a conversion of the existing Tampa Municipal Incinerator and the construction of a second, new refuse-to-energy facility at the Incinerator site.

The State of Florida non-attainment air emissions regulations require offsets for emissions on non-attainment pollutants from sources locating in non-attainment areas. Because the Incinerator site is located within a Total Suspended Particulate Matter (TSP) non-attainment area, offsets for TSP emissions will be required.

By this letter, the City of Tampa is seeking TSP offsets from available sources. If your firm possesses available TSP offsets from regulated emissions at your facility, or from other means, please contact Joe Mangosa at 813-249-5700.

Your time and consideration are appreciated.

Sincerely,

Bob Martinez, Mayor  
City of Tampa, Florida  
Public Resources and Public Works

11/1/81



# CITY OF TAMPA

Bob Martinez, Mayor

MCKAY BAY REFUSE-TO-ENERGY PROJECT

October 14, 1981

Allen Morrison, Manager  
Gardinier Incorporated  
Environmental and Chemical Services  
P.O. Box 3269  
Tampa, FL 33601

Dear Mr. Morrison:

As you are aware, the City of Tampa has embarked on an aggressive plan to dispose of solid waste by incineration with recovery of heat energy and production of electricity. This plan would involve a conversion of the existing Tampa Municipal Incinerator and the possible construction of a second, new refuse-to-energy facility at the Incinerator site.

The State of Florida non-attainment air emission regulations required that the City seek offsets for the proposed facilities. Your company was contacted by the City (July 10, 1981) to determine if Gardinier has TSP offsets which could be dedicated to the City of Tampa projects. At this time, the City has not received a response to this inquiry. If Gardinier does possess available TSP offsets we would appreciate notification at your earliest possible convenience. Please contact Joe Murdoch, Resource Recovery Management Analyst, at (813) 223-8090.

Thank you for your time and consideration.

Very truly yours,

Richard D. Garrity, PhD  
Urban Environmental Coordinator

RG/dw



# CITY OF TAMPA

Bob Martinez, Mayor

MCKAY BAY REFUSE-TO-ENERGY PROJECT

September 8, 1981

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

Dear Mr. Fancy:

The enclosed check for \$40.00 is for payment of the application fees for the McKay Bay Refuse-to-Energy Project's applications to construct an Air Pollution Source.

We believe this completes the application requirements and ask that you inform us immediately if additional information is required.

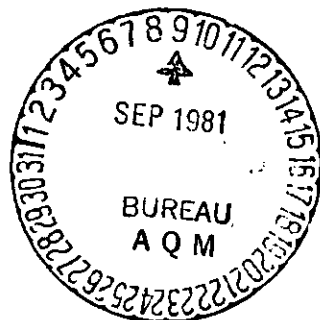
Thank you for your time and cooperation.

Very Truly Yours,

Richard D. Garrity, PhD  
Urban Environmental Coordinator

Encls.

RDG/jls



INTEROFFICE MEMORANDUM

For Routing To District Offices And/Or To Other Than The Addressee	
To: _____	Loctn.: _____
To: _____	Loctn.: _____
To: _____	Loctn.: _____
From: _____	Date: _____

TO: Permit File AC29-  
AC29-

THRU: Clair Fancy  
Bill Thomas *BT*  
Larry George *LJ*

FROM: John Svec *APS*

DATE: September 2, 1981

SUBJECT: Preliminary Rule Applicability - McKay Bay Refuse-To-Energy Project, Hillsborough County

Two applications for permits to construct were submitted to the Bureau of Air Quality Management on August 18, 1981, by the city of Tampa. Since the application fee was not submitted, the completeness review period has not officially started.

The proposed project consists of rehabilitation of the closed Tampa Municipal Incinerator to a resource recovery facility and the construction of a new plant adjacent to the incinerator. Each source will have the capability of burning 1000 tons per day of municipal refuse. Steam will be generated from the combustion process and will be used to produce electricity in a 21 MW condensing Turbine generator.

The McKay Bay Refuse-To-Energy Project is in an area designated nonattainment for the criteria pollutants particulate matter (PM) and ozone. It is also within 50km of the Pinellas County Sulfur Dioxide Nonattainment area and within 100km of the Chassahowitzka Class I area.

The potential and projected emissions for the proposed project are listed in the following table.

Pollutant	Potential (uncontrolled) Emission Rate (tons/year)	Applicants Projected Actual Emission Rate (tons/year)
PM	7702	269
SO <sub>2</sub>	1142	1142
NO <sub>x</sub>	1233	1233
CO	258	258
VOC	64	64
Pb	32.6	32.6

Pollutant	Potential (uncontrolled) Emission Rate (tons/year)	Applicants Projected Actual Emission Rate (tons/year)
Hg (vaporous)	3.6	3.6
Hg (particulate)	0.16	0.16
Be	0.0028	0.0028
F	32.6	32.6
HCl	1646	1646

Since the proposed project is the construction of a new major emitting facility which would result in an increase in potential emissions of SO<sub>2</sub> and an increase in concentrations of SO<sub>2</sub> over the baseline, it constitutes construction subject to review under State prevention of significant deterioration (PSD) regulations (17-2.04(6), FAC). PSD review consists of a determination of best available control technology (BACT) for SO<sub>2</sub>, NO<sub>x</sub>, and CO and an air quality impact analysis to demonstrate that the project would not cause or contribute to a violation of ambient air quality standard<sup>s</sup> or PSD increment<sup>s</sup>.

Is this true?

← Debatable for NO<sub>x</sub> and CO under PSD, OK under 17-2.03 true - CWB

In addition, since construction is in the PM and ozone nonattainment area in Hillsborough County, the project is subject to the new source review (NSR) requirements (17-2.17, FAC) for PM and VOC emissions. The nonattainment review consists of a determination of Lowest Achievable Emission Rate (LAER) for PM and VOC emissions, emission offsets for PM and VOC, and statewide compliance requirement for multiple facility ownership.

In addition, the project is subject to emission limiting standards for PM under the adopted federal new source performance standards (NSPS) for incinerators (17-2.21(2)(a), FAC). The LAER determination must be at least as stringent as the applicable NSPS. Also, since the project is in the area of influence of the Pinellas County Sulfur Dioxide Nonattainment Area, emission modeling for SO<sub>2</sub> must demonstrate that the SO<sub>2</sub> nonattainment area is not significantly impacted by the project, so that the project is exempt from the NSR requirements (17-2.17, FAC) for the SO<sub>2</sub> Nonattainment Area.

What about adopted NESAPS? Yes - definitely, yes - CWB

In addition, since the project is within 100 km of a Class I area (Chassahowitzka National Wilderness Area), an air quality impact analysis is required to demonstrate that the project would not cause or contribute to a violation of Class I PSD increments (17-2.04(1)(a), FAC).

Also, HCE must be looked at somehow.

Approved:

Larry George 9/17/81  
Date

William Thomas 9/18/81 (subject to comments)  
Date

C.H. Fancy 10/1/81  
Date

cc: Anthony Jones, Dan Williams

INTEROFFICE MEMORANDUM

For Routing To District Offices And/Or To Other Than The Addressee	
To: _____	Loctn.: _____
To: _____	Loctn.: _____
To: _____	Loctn.: _____
From: _____	Date: _____

TO: Permit File PSD-FL-086

THRU: Clair Fancy  
Bill Thomas *BT*  
Larry George *LG*

FROM: John Svec *JS*

DATE: September 2, 1981

SUBJECT: Preliminary Rule Applicability - McKay Bay Refuse - To - Energy Project, Hillsborough County

An application for a Federal prevention of significant deterioration (PSD) permit was submitted to the Bureau of Air Quality Management on August 18, 1981, by the city of Tampa. The application is undergoing completeness review; day 30 is September 17, 1981.

The proposed project consists of rehabilitation of the closed Tampa Municipal Incinerator to a resource recovery facility and of construction of a new resource recovery facility adjacent to the incinerator. Each source will have the capability of burning 1000 tons per day of municipal refuse. Steam will be generated from the combustion process and will be used to produce electricity in a 21 MW condensing turbine generator.

The McKay Bay Refuse-To-Energy Project is in an area designated nonattainment for the criteria pollutant particulate matter (PM) and ozone, unclassifiable for sulfur dioxide (SO<sub>2</sub>) and attainment for carbon monoxide (CO) and nitrogen oxide (NO<sub>x</sub>) under 40 CFR 81.310. It is within 100 km from the Chassahowitzka National Wilderness Area Class I area.

*Next time add more than 10 km from say Class I area*

The project consists of new construction so therefore <sup>no</sup> contemporaneous increases or decreases of emissions associated with this project have been identified by the applicant. The projected emissions and applicable significant emission rates for the proposed project which are subject to review under 40 CFR 52.21(i)(3) are listed in the following table.

*In the future, I suggest listing all emissions and sig. rates, then discuss which pollutants are subject and which are not due to nonattainment, insig. increases, not regulated, etc.*

<u>Regulated Pollutant</u>	<u>Applicant's Projected Emission Rate (tons/year)</u>	<u>Significant Emission Rate (tons/year)</u>
SO <sub>2</sub>	1142	40
NO <sub>x</sub>	1233	40
CO	258	100
Pb	32.6	0.6
Hg (vaporous)	3.6	0.1
Hg (particulate)	0.16	0.1
Be	0.0028	0.0004
F	32.6	3

Since the proposed project is the construction of a major stationary source, it constitutes construction subject to review under federal PSD regulations (40 CFR 52.21(i)). PSD review consists of a determination of best available control technology (BACT) and an air quality impact analysis for each attainment pollutant that would be emitted in a significant amount. For the proposed project, PSD review is required for seven pollutants: SO<sub>2</sub>, NO<sub>x</sub>, CO, Pb, Hg, Be, and F.

Since the proposed project is within 100km of a Class I area, an air quality analysis must be performed to determine if the Class I area is significantly impacted by PM and SO<sub>2</sub> emissions according to 40 CFR 52.21(p).

no, PM not subject to PSD review

Approved, Larry George 9/17/81 w/corrections  
 Larry George Date

~~NO~~ NESHAPS ~~?~~  
 YES !

Bill Thomas 9/18/81  
 Bill Thomas Date

Clair Fancy 10/1/81  
 Clair Fancy Date

cc: Anthony Jones  
 Dan Williams

JS:mjr

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: Dan Williams, DER Southwest District  
Anthony Jones, Hillsborough County Env. Prot. Comm.  
John Svec, DER, BAQM ✓  
Carl Bock, DER, BAQM

FROM: Ed Palagyi, BACT Coordinator

DATE: September 1, 1981

SUBJ: BACT/LAER Review Group

Attached is a partial BACT/LAER determination for the Tampa incinerator project. As a member of the elite reievew group your valued recommendations are requested for this project. A final determination will then be made based on your response.

Please sne your recommendations to my attention on or before October 9, 1981. Confucious say - a fast response accelerates the solution.



Best Available Control Technology (BACT) Determination  
Lowest Achievable Emission Rate (LAER) Determination

City of Tampa

Hillsborough County

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

Phase I is the renovation and conversion of the existing incineration system into a state of the art resource recovery system capable of producing electricity. A fourth combustion train will be added plus waste heat boilers, electrostatic precipitators and a condensing steam turbine electric generator. When complete the facility will have the capability to dispose of approximately 300,000 tons per year of solid waste.

Phase II is the construction of a new source recovery system to be located adjacent to the renovated system. The new system will be two mass burn units capable of processing 1000 tons per day of solid waste. The new system in addition to producing electricity will be capable of recovering secondary materials.

The two incinerator systems when installed and operating will be capable of processing 2000 tons per day of solid waste, The space needed for a landfill (dump) will be reduced approximately 90 percent. The residue (ash) from the units going to the landfill will be 15 percent of the mass but only 5 percent of the volume of waste collected and incinerated. The operating schedule is around-the-clock 365 days per year with a 20 percent downtime allowance for maintenance.

The project is located on a 14 acre site adjacent to McKay Bay south of Route U.S. 60, which is in that portion of Hillsborough County classified nonattainment for the pollutants; particulate matter (17-2.13(1)(a)F.A.C.) and ozone (17-2.16(1)(d)F.A.C.). The emission limiting standards for the pollutants, particulate matter and ozone, will be subject to a Lowest Achievable Emission Rate (LAER) determination (17-2.17(6)F.A.C.).

BACT Determination Requested by the Applicant:

Pollutant	Emission Limit
SO <sub>2</sub>	Low sulfur content waste
NO <sub>x</sub>	Boiler design and operating procedures
Lead	ESP
Beryllium	ESP
Mercury	ESP
HF	Design and operating techniques

Page Three

LAER Determination Requested by the Applicant:

Pollutant	Emission Limit
Particulates	0.03 grains/DSCF at 50% excess air
Hydrocarbons	Facility design

Date of Receipt of a BACT Application:

August 24, 1981

Date of Publication in the Florida Administrative Weekly:

September 4, 1981

Review Group Members:

Carl Bock, BAQM New Source Review

John Svec, BAQM New Source Review

Anthony Jones, Hillsborough County Environmental Prot. Comm.

Dan Williams, DER Southwest District

BACT and LAER Determination by DER:

The preceding is a draft overview of the BACT/LAER determination for the new Tampa incinerator project, furnished through the courtesy of your friendly BACT coordinator.

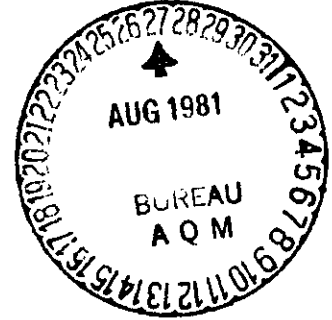
Please send your BACT recommendations and justifications to Ed Palagyi, BAQM. Please reply on or before October 9, 1981.



Henningson, Durham & Richardson

8404 Indian Hills Drive  
Omaha, NE 68114  
(402) 399-1000

August 21, 1981



Mr. Clair Fancy  
Deputy Head-Air Quality Branch  
Department of Environmental Regulation  
2600 Blair Stone Road  
Tallahassee, Florida 32301

Dear Mr. Fancy:

Enclosed are the Hearing Documents from Onondaga that you requested. The contents are listed below:

- 1) March 26 - Entire Volume
- 2) April 1 - Entire Volume
- 3) April 2 - Entire Volume
- 4) April 14 - Pg. 1397-1413
- 5) April 15 - Pg. 1579-end
- 6) April 16 - Beginning-page 1674
- 7) May 6 - Pg. 2915-2933

One additional document has been included. It is the Hearing Examiners Findings.

If we can be of any assistance, please feel free to ask.

Sincerely,

HENNINGSON, DURHAM & RICHARDSON, INC.

Easel Roberts

ER:wt  
Enclosure

cc: Joe Murdoch, City of Tampa

Architecture  
Engineering  
Planning  
Systems  
Sciences

Alexandria  
Atlanta  
Austin  
Charlotte  
Chicago  
Dallas  
Denver  
Helena  
Houston  
Knoxville  
Minneapolis  
Norfolk  
Omaha  
Pensacola  
Phoenix  
Santa Barbara  
Seattle  
Washington, D.C.

Summary of Test Results

NASHVILLE THERMAL TRANSFER CORPORATION

	<u>Date</u>	<u>gr/SCFD at 12% CO<sub>2</sub></u>	<u>Average</u>
Unit #1	September, 1976	0.027	0.024
		0.028	
		0.018	
Unit #2	August, 1977	0.0103	0.0175
		0.0069	
		0.0353	
		Overall average	0.021