General Portland Inc.
Corporate Offices

June 25, 1986

Mr. Bill Thomas
Permits Division
Florida Department of Environmental Regulation
2200 Blair Stone Road
Tallahassee, Florida 32301

Dear Mr. Thomas:

This will serve to transmit copies of General Portland's request for a modification to Construction Permit No. AC29-094093 dated February 5, 1985. General Portland requests approval to construct a vacuum type cement unloading system at our plant in Tampa, Florida. We have, in the past several months, discussed this project with you, Mr. Claire Fancy, Mr Dan Williams and Mr. Roger Stewart and his staff of the Hillsborough County Environmental Protection Commission. The permit modification request has been completed following your suggestions and is submitted for your review and approval.

General Portland intends to purchase two vacuum type ship unloading systems each rated at 400 tons per hour and install them on our dock on Sparkman Channel in the Port of Tampa.

The cement will be placed on an existing conveyor belt using Dust collection installed in the Phase I Clinker Project and conveyed to a new 30,000 ton cement storage silo. Transfer points will be controlled with existing Dust Collectors. A large portion of the total 900,000 tons per year will be loaded from the silo directly into bulk cement tanker trucks for customer delivery. A smaller tonnage will be reground in existing finish mills to produce masonry and other specialty cements. The unloading, conveying, storage and loadout facilities will be dust free utilizing high efficiency pulse jet type dust collectors to insure dust free operation.

General Portland requests continuation of our presently permitted Phase I Clinker Unloading System and replacement of the Phase II clinker construction plan with the vacuum cement unloading system described in this application.

12801 North Central Expressway • North Central Expressway Plaza III • Suite 1700
Mailing Address: P.O. Box 324, Dallas, Texas 75221 • (214) 934-7100

General Portland sincerely appreciates the efforts of the DER and Hillsborough County in the review and permitting of this modification. If at any time you require additional information or I may be of any additional service, please do not hesitate to contact me at 214/934-7100.

Yours truly,

William H. Winders

William H. Winders
Environmental Manager

WHW:ss
Attachments

cc: E. H. Sundquist
R. D. Auten
Mr. Roger Stewart

General Portland Inc. Corporate Offices

June 25, 1986

Mr. Roger Stewart, Director
Hillsborough County Environmental Protection Commission
1900 Ninth Avenue
Tampa, Florida 33602

Dear Mr. Stewart:

This will serve to transmit copies of General Portland's request for a modification to Construction Permit No. AC29-094093 dated February 5, 1985. General Portland requests approval to construct a vacuum type cement unloading system at our plant in Tampa, Florida. We have, in the past several months, discussed this project with you and your staff, Mr. Claire Fancy, Mr Dan Williams, and Mr. Bill Thomas of the Florida Department of Environmental Regulation (DER). The permit modification request has been completed following Mr. Thomas' suggestions and is submitted for your review and comments to the Florida Department of Environmental Regulation (DER).

General Portland intends to purchase two vacuum type ship unloading systems each rated at 400 tons per hour and install them on our dock on Sparkman Channel in the Port of Tampa.

The cement will be placed on an existing conveyor belt using Dust collection installed in the Phase I Clinker Project and conveyed to a new 30,000 ton cement storage silo. Transfer points will be controlled with existing and new Dust Collectors. A large portion of the total 900,000 tons per year will be loaded from the silo directly into bulk cement tanker trucks for customer delivery. A smaller tonnage will be reground in existing finish mills to produce masonry and other specialty cements. The unloading, conveying, storage and loadout facilities will be dust free utilizing high efficiency pulse jet type dust collectors to insure dust free operation.

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Mailing Address: P.O. Box 324, Dallas, Texas 75221 • (214) 934-7100

General Portland Inc. sincerely appreciates the efforts of HCEPC in the review and anticipated support of this modification. Please advise me, as soon as possible, of the correct permit application fees, and we shall remit. If at any time you require additional information, or if I may be of any assistance, please do not hesitate to contact me at (214) 934-7100.

Yours truly,

William H. Winders

William H. Winders
Environmental Manager

WHW:ss
Attachments

cc: E. H. Sundquist
R. D. Auten
Mr. Bill Thomas

AC 29-122068

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

SOUTHWEST DISTRICT
7601 HIGHWAY 301 NORTH
TAMPA, FLORIDA 33610

DER
JUL 1 1986
BAQM

July 1 1986

BOB GRAHAM
GOVERNOR
VICTORIA J. TSCHINKEL
SECRETARY
WILLIAM K. HENNESSEY
DISTRICT MANAGER

MODIFICATION TO PERMIT #AC 29-094093 DATED FEB. 5, 1985

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: PORTLAND CEMENT PLANT [ ] New[1] [X] Existing[1]

APPLICATION TYPE: [ ] Construction [ ] Operation [X] Modification

COMPANY NAME: GENERAL PORTLAND INC. COUNTY: Hillsborough

Identify the specific emission point source(s) addressed in this application (i.e. Lime Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired) Cement Unloading, Transfer & Storage

SOURCE LOCATION: Street 2001 Maritime Blvd. City Tampa

UTM: East 17-358.0E North 3090.7N

(1) Latitude 27 ° 56 ' 04 "N Longitude 82 ° 26 ' 44 "W

APPLICANT NAME AND TITLE: Eric Sundquist, Vice President & General Manager

APPLICANT ADDRESS: 1111 North West Shore Blvd., Tampa, Fla. 33622

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of GENERAL PORTLAND INC.

I certify that the statements made in this application for a Construction/Modification permit are true, correct and complete to the best of my knowledge and belief. Further, I agree to maintain and operate the pollution control source and pollution control facilities in such a manner as to comply with the provision of Chapter 403, Florida Statutes, and all the rules and regulations of the department and revisions thereof. I also understand that a permit, if granted by the department, will be non-transferable and I will promptly notify the department upon sale or legal transfer of the permitted establishment.

*Attach letter of authorization

Signed:

Eric H. Sundquist, Vice-President & General Manager
Name and Title (Please Type)

Date: 6/26/86 Telephone No. 813/872-7777

B. PROFESSIONAL ENGINEER REGISTERED IN FLORIDA (where required by Chapter 471, F.S.)

This is to certify that the engineering features of this pollution control project have been designed/examined by me and found to be in conformity with modern engineering principles applicable to the treatment and disposal of pollutants characterized in the permit application. There is reasonable assurance, in my professional judgment, that

[1] See Florida Administrative Code Rule 17-2.100(57) and (104)

the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the department. It is also agreed that the undersigned will furnish, if authorized by the owner, the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.

Signed Robert D. Dubois

Robert D. Dubois
Name (Please Type)

GENERAL PORTLAND INC.
Company Name (Please Type)

P.O. Box 324, Dallas, TX 75221
Mailing Address (Please Type)

Florida Registration No. 17834 Date: 6-25-86 Telephone No. 214/934-7100

SECTION II: GENERAL PROJECT INFORMATION

A. Describe the nature and extent of the project. Refer to pollution control equipment, and expected improvements in source performance as a result of installation. State whether the project will result in full compliance. Attach additional sheet if necessary.

This is a modification of construction Permit #AC29-0943093, dated Feb. 5, 1985. See attached Sheet #1 for description of Proposed Modification. Air emission sources will comply with FAC Chapter 17-2 regulations.

B. Schedule of project covered in this application (Construction Permit Application Only)

Start of Construction September '86 Completion of Construction September '87

C. Costs of pollution control system(s): (Note: Show breakdown of estimated costs only for individual components/units of the project serving pollution control purposes. Information on actual costs shall be furnished with the application for operation permit.)

See attached Sheet #2 for Costs.

D. Indicate any previous DER permits, orders and notices associated with the emission point, including permit issuance and expiration dates.

See attached Sheet #3 for DER Permits.

E. Requested permitted equipment operating time: hrs/day_____; days/wk_____; wks/yr_____; if power plant, hrs/yr_____; if seasonal, describe: The import of 900,000 tons per year of cement, will require an average of 33 ships/year and an average cargo size of 27,300 tons/ship with an average unloading rate of 520 tons/hr., average 52 hrs/ship. and average 1733 hr/yr. Each source may vary slightly and its operating time is listed separately.

F. If this is a new source or major modification, answer the following questions. (Yes or No)

1. Is this source in a non-attainment area for a particular pollutant? Yes

   a. If yes, has "offset" been applied? N/A*

   b. If yes, has "Lowest Achievable Emission Rate" been applied? N/A*

   c. If yes, list non-attainment pollutants. _____

2. Does best available control technology (BACT) apply to this source? If yes, see Section VI. No

3. Does the State "Prevention of Significant Deterioriation" (PSD) requirement apply to this source? If yes, see Sections VI and VII. No

4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source? No

5. Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source? No

H. Do "Reasonably Available Control Technology" (RACT) requirements apply to this source? N/A

   a. If yes, for what pollutants?_____

   b. If yes, in addition to the information required in this form, any information requested in Rule 17-2.650 must be submitted.

Attach all supportive information related to any answer of "Yes". Attach any justification for any answer of "No" that might be considered questionable.

* N/A per Mr. Bill Thomas DER Tallahassee 8/15/84 and 6/24/86

SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)

A. Raw Materials and Chemicals Used in your Process, if applicable:

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
				See Attachments and
				Drawing.

B. Process Rate, if applicable: (See Section V, Item 1)

1. Total Process Input Rate (lbs/hr): Varible up to 2,000,000 (lbs/hr)

2. Product Weight (lbs/hr): Same as Item 1

C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)

Name of Contaminant	Emission[1]		Allowed[2] Emission Rate per Rule 17-2	Allowable[3] Emission lbs/hr	Potential[4] Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/yr	T/yr	
Particulate	See Attached		17-2.610(2)	**	See Attached		See 5
	Sheet #V				Sheet #V.		Below
Fugitive Particulate			17-2.610(3)				

[1]See Section V, Item 2. *(See Attached Sheet "Emission Calculations")

[2]Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

[3]Calculated from operating rate and applicable standard.
See Attached Emission Calculations

[4]Emission, if source operated without control (See Section V, Item 3).

** 48,560X .03 X 1/7000 X 60 = 12.48 #/hr.

D. Control Devices: (See Section V, Item 4)

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)
Industrial Filter	Particulate	99.9%	-	Purchase
Fabric Filters, or	equal.			Specifications Sheets Attached
See Attached Sheets				
				Attachment VI

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
N/A			

*Units: Natural Gas--MMCF/hr; Fuel Oils--gallons/hr; Coal, wood, refuse, other--lbs/hr.

Fuel Analysis:

Percent Sulfur: _____ Percent Ash: _____

Density: _____ lbs/gal Typical Percent Nitrogen: _____

Heat Capacity: _____ BTU/lb _____ BTU/gal

Other Fuel Contaminants (which may cause air pollution): _____

F. If applicable, indicate the percent of fuel used for space heating.

Annual Average _____ Maximum _____

G. Indicate liquid or solid wastes generated and method of disposal.

Dust Collected by Control Devices will be returned to System

H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):

Stack Height: * ft. Stack Diameter: * ft.

Gas Flow Rate: * ACFM * DSCFM Gas Exit Temperature: * °F.

Water Vapor Content: _____ % Velocity: * FPS

*To be supplied with Operating Permit Application

SECTION IV: INCINERATOR INFORMATION

Type of Waste	Type 0 (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq.& Gas By-prod.)	Type VI (Solid By-prod.)
Actual lb/hr Incinerated							
Uncontrolled (lbs/hr)							

Description of Waste _____

Total Weight Incinerated (lbs/hr) _____ Design Capacity (lbs/hr) _____

Approximate Number of Hours of Operation per day _____ day/wk _____ wks/yr. _____

Manufacturer _____

Date Constructed _____ Model No. _____

	Volume $(ft)^3$	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: _____ ft. Stack Diamter: _____ Stack Temp. _____

Gas Flow Rate: _____ ACFM _____ DSCFM* Velocity: _____ FPS

*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control device: [ ] Cyclone [ ] Wet Scrubber [ ] Afterburner

[ ] Other (specify) _____

Brief description of operating characteristics of control devices: _____

_____

_____

_____

_____

Ultimate disposal of any effluent other than that emitted from the stack (scrubber water, ash, etc.):

_____

_____

_____

_____

NOTE: Items 2, 3, 4, 6, 7, 8, and 10 in Section V must be included where applicable.

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight -- show derivation [Rule 17-2.100(127)]

2. To a construction application, attach basis of emission estimate (e.g., design calculations, design drawings, pertinent manufacturer's test data, etc.) and attach proposed methods (e.g., FR Part 60 Methods 1, 2, 3, 4, 5) to show proof of compliance with applicable standards. To an operation application, attach test results or methods used to show proof of compliance. Information provided when applying for an operation permit from a construction permit shall be indicative of the time at which the test was made.

3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).

4. With construction permit application, include design details for all air pollution control systems (e.g., for baghouse include cloth to air ratio; for scrubber include cross-section sketch, design pressure drop, etc.)

5. With construction permit application, attach derivation of control device(s) efficiency. Include test or design data. Items 2, 3 and 5 should be consistent: actual emissions = potential (1-efficiency).

6. An 8 1/2" x 11" flow diagram which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particles are evolved and where finished products are obtained.

7. An 8 1/2" x 11" plot plan showing the location of the establishment, and points of airborne emissions, in relation to the surrounding area, residences and other permanent structures and roadways (Example: Copy of relevant portion of USGS topographic map).

8. An 8 1/2" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.

9. The appropriate application fee in accordance with Rule 17-4.05. The check should be made payable to the Department of Environmental Regulation.

10. With an application for operation permit, attach a Certificate of Completion of Construction indicating that the source was constructed as shown in the construction permit.

SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY

A. Are standards of performance for new stationary sources pursuant to 40 C.F.R. Part 60 applicable to the source?

[ ] Yes [X] No

Contaminant	Rate or Concentration

B. Has EPA declared the best available control technology for this class of sources (If yes, attach copy)

[ ] Yes [X] No

Contaminant	Rate or Concentration

C. What emission levels do you propose as best available control technology?

Contaminant	Rate or Concentration
Particulate Emissions	See Attachments

D. Describe the existing control and treatment technology (if any).

1. Control Device/System:
2. Operating Principles:
3. Efficiency:*
4. Capital Costs:

*Explain method of determining

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

Contaminant	Rate or Concentration

10. Stack Parameters

a. Height: ft.

b. Diameter: ft.

c. Flow Rate: ACFM

d. Temperature: °F.

e. Velocity: FPS

E. Describe the control and treatment technology available (As many types as applicable, use additional pages if necessary).

1.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

2.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

[1]Explain method of determining efficiency.
[2]Energy to be reported in units of electrical power - KWH design rate.

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

3.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

4.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Costs:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

F. Describe the control technology selected:

1. Control Device: Fabric Filters

2. Efficiency:[1] 99.9%

3. Capital Cost: $286,000

4. Useful Life: Not Available

5. Operating Cost: Unknown

6. Energy:[2] Not Available

7. Maintenance Cost: Unknown

8. Manufacturer: Industrial Filter & Equal

9. Other locations where employed on similar processes:

a. (1) Company: GENERAL PORTLAND INC.

(2) Mailing Address:

(3) City:

(4) State:

[1]Explain method of determining efficiency.
[2]Energy to be reported in units of electrical power - KWH design rate.

(5) Environmental Manager: William H. Winders

(6) Telephone No.: (214) 934-7148

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

b. (1) Company:

(2) Mailing Address:

(3) City: (4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

10. Reason for selection and description of systems:

[1]Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

SECTION VII - PREVENTION OF SIGNIFICANT DETERIORATION

A. Company Monitored Data

1. _____no. sites _____ TSP _____( ) SO^{2}* _____ Wind spd/dir

Period of Monitoring _____/_____/_____ to _____/_____/_____
month day year month day year

Other data recorded _____

Attach all data or statistical summaries to this application.

*Specify bubbler (B) or continuous (C).

2. Instrumentation, Field and Laboratory

a. Was instrumentation EPA referenced or its equivalent? [ ] Yes [ ] No

b. Was instrumentation calibrated in accordance with Department procedures?

[ ] Yes [ ] No [ ] Unknown

B. Meteorological Data Used for Air Quality Modeling

1. _____ Year(s) of data from ____/____/____ to ____/____/____
month day year month day year

2. Surface data obtained from (location)_____

3. Upper air (mixing height) data obtained from (location)_____

4. Stability wind rose (STAR) data obtained from (location)_____

C. Computer Models Used

1. _____ Modified? If yes, attach description.

2. _____ Modified? If yes, attach description.

3. _____ Modified? If yes, attach description.

4. _____ Modified? If yes, attach description.

Attach copies of all final model runs showing input data, receptor locations, and principle output tables.

D. Applicants Maximum Allowable Emission Data

Pollutant	Emission Rate	
TSP	_____	grams/sec
SO^2	_____	grams/sec

E. Emission Data Used in Modeling

Attach list of emission sources. Emission data required is source name, description of point source (on NEDS point number), UTM coordinates, stack data, allowable emissions, and normal operating time.

F. Attach all other information supportive to the PSD review.

G. Discuss the social and economic impact of the selected technology versus other applicable technologies (i.e., jobs, payroll, production, taxes, energy, etc.). Include assessment of the environmental impact of the sources.

H. Attach scientific, engineering, and technical material, reports, publications, journals, and other competent relevant information describing the theory and application of the requested best available control technology.

PROJECT MODIFICATION
EMISSION SUMMARY

Dust Collector No.	Emissions Tons Per Year
27	2.34
28	0.78
42	4.14
43	4.01
44	1.18
45	1.18
46	0.09
47	0.09
48	0.30
49	0.82
50	?
Total Project Emissions	14.93

X

CLINKER PROJECT PHASE I AS BUILT
EMISSIONS SUMMARY

Dust Collector

No. 26

10,000 X .03 X 1/7000 X 60 X 1/2000 X 1600 = 2.06

No. 27

18,000 X .03 X 1/7000 X 60 X 1/2000 X 1600 = 3.70

No. 28

6,000 X .03 X 1/7000 X 60 X 1/2000 X 1600 = 1.23

Total Emissions
Tons/Year = 6.99

1982 =
83 =
84 =
85 =
Project 8.6 = [redacted]

PM
86 => 25 TPY
non-attainment
NSR

=< 25 TPY for PM
non-attainment area
NSR-RACT

< 5 TPY

permitted =< 15
modified =
increase 8.60

1986 - 15 TPY
increase
+ new construction
total emission increase
for that project
=

ATTACHMENT I

DESCRIPTION OF THE PROPOSED MODIFICATION TO THE TAMPA CLINKER UNLOADING PROJECT PHASE II AND REPLACEMENT WITH A FINISHED CEMENT UNLOADING SYSTEM FOR THE TAMPA PLANT

This permit modification is intended to cancel Phase II of the Cement Clinker Unloading Project, authorized in Construction Permit No. AC29-094093 dated February 5, 1985; and replace it with the construction of a vacuum-type ship unloading system. The vacuum-type system is an environmentally secure system and clearly superior to other open-hold unloading equipment presently available.

General Portland Inc. seeks construction permit authority for a vacuum finished cement unloading system to unload 900,000 tons per year of Portland Cement from gearless bulk cargo ships and to continue the unloading of cement clinker at our dock through the presently permitted Phase I clinker unloading system as built. Permission is not requested for both operations concurrently, except during the period of construction and transition from clinker to cement. During this period we do not intend to import more product than approved. At the completion of construction of the vacuum cement unloading system General Portland intends to seek an operating permit which will allow the unloading of finished cement.

General Portland's finished cement unloading project includes the construction of a new concrete dock section, three new dolphins, and a new shore mooring at the northwest corner of our property (separate permits will be submitted for this dock work). The purchase of two vacuum type 400 ton per hour ship unloading systems as manufactured by Cyclonaire or their equal will provide a dust-free environmentally sound ship unloading system. We will utilize the present existing and permitted Dust Collector No. 27 and 28 in the transfer of the cement over the existing No. 7 conveyor belt. We will construct a new 30,000 ton storage silo and install Dust Collector No. 43 to vent the silo during loading. A new Dust Collector No. 42, will vent the air slides and the bulk cement truck loading spouts under the large storage silo. Four new small Dust Collectors will be added to vent cement transport for regrinding. The Cyclonaire vacuum systems also have internal dust control systems which are highly efficient.

This application as submitted is intended to include all particulate and fugitive particulate emissions sources in the categories of cement unloading, transport, handling, storage and loadout of the Cement Unloading System at the Tampa Plant.

Drawings attached to this request for modification cover:

(1) the process flow of presently existing and permitted equipment;

(2) a layout of the Phase I Clinker Unloading Project as built, and the Phase II Clinker Unloading Project which is hereby abandoned;

(3) the flow schematic and layout of the proposed equipment associated with the cement vacuum unloading, transport and storage system.

ATTACHMENT II

COSTS OF POLLUTION CONTROL SYSTEMS
TAMPA CEMENT UNLOADING, HANDLING AND STORAGE

Location & Item	Purchase	Installation	Total
30,000 Ton Storage Silo Top, 1-1800 CFM Baghouse with Fan and Ductwork	60,000	20,000	80,000
30,000 Ton Storage Silo-Bottom, 1-8000 CFM Baghouse with Fan and Duct Work	25,000	15,000	40,000
Mill Feed Silos-Bottom 4-1500 CFM Insertable Dust Filters with Fans	16,000	9,000	25,000
Compressor	7,000	10,000	17,000
Power and Wiring	18,000	46,000	64,000
Sub Total	126,000	100,000	226,000
Engineering		34,000	34,000
Contingency	13,000	13,000	26,000
TOTAL	139,000	147,000	286,000

ATTACHMENT III

GENERAL PORTLAND INC.
TAMPA PLANT

OUTSTANDING DER OPERATING PERMITS

DER Number	Source	Expiration Date
A029-51703	Kiln #6	April, 1987
A029-51704	#6 Clinker Cooler	April, 1987
A029-47658	#6 Precip Dust Handling	January, 1987
A029-47651	Stor/Load White (III)	January, 1987
A029-47652	Bulk Cem Stor Load	January, 1987
A029-47653	Mat. Handling	January, 1987
A029-47654	Finish Mills	January, 1987
A029-47655	Stor/Load, Grat (III)	January, 1987
A029-47656	Cement Stor/Pkg	January, 1987
A029-47657	Truck-Track Scale	January, 1987
A029-47659	Finish Grind Storage	January, 1987
A029-55964	Finish Mill DC 8c & 10c	July, 1987
A029-47661	White Cem Stor/ Pkg	January, 1987
A029-47662	Mason Cem Stor/ Pkg	January, 1987
A029-56064	Masonry Dust Collector	July, 1987

In addition, FAC, 17-2.650 (2)(c) 1.c.(ii) contains a specific Alternate Emission Limitation for General Portland Inc.'s, Tampa plant.

PERMIT #AC29-094093
PROPOSED MODIFICATION FOR CEMENT UNLOADING

DUST COLLECTOR EMISSION CALCULATIONS:

Assumptions:

1. Average yearly cement imported 900,000 tons.
2. Average ship cargo size of 27,300 tons.
3. Average number of ship arrivals is 33 per year.
4. Average cement unloading rate is 520 tons/hour including ship movements and clean-up time.
5. Average unloading time is 1,733 hrs per year.

SAMPLE CALCULATION

18,000 CFM X 0.03 gr/ft^3 X 1/7000 gr/# X 60 min/hr X 1013 hr/yr X 1/2000 #/ton = 2.34 Tons Per Year.

Dust Collector No. 27

Collector No. 27 is permitted for 720 hrs/yr by Permit #A029-115401. From Assumptions above, 1733 hours of operation per year will be required. Therefore,(1733 - 720 = 1013 hrs per year) must be permitted by this modification:

18,000 X .03 X 1/7000 X 60 X 1/2000 X 1013 = 2.34 TPY.

Dust Collector No. 28

Permitted for 720 hrs/yr at 6000 CFM by Permit No. A029-115402 and old location No. 20 is permitted in A029-47653 for 8760 hrs/yr at 6000 CFM. Therefore, the new portion of Dust Collector No. 28 will require (1733 - 720 = 1013 hrs/yr) at 6000 CFM.

6000 X .03 X 1/7000 X 60 X 1/2000 X 1013 = 0.78 TPY.

Dust Collector No. 42

Required for bulk cement truck loadout for 16 hrs/day, 5 day/week, 52 wk/yr. less 8 holidays of 16 hrs each or (4160 hr - 128 hr = 4032 hrs/yr).

8000 X .03 X 1/7000 X 60 X 1/2000 X 4032 = 4.14 TPY.

Dust Collector No. 43

Requires 1733 hrs/yr from Assumptions above.

18,000 X .03 X 1/7000 X 60 X 1/2000 X 1733 = 4.01 TPY.

Dust Collector No. 44

Furnished by Manufacturers of Vacuum Unloading System and guaranteed to meet 0.02 grains per standard cubic foot per minute. 1733 hrs/yr will be required from Assumptions above. Manufacturers information indicates that Dust Collector No. 44 and No. 45 will meet or exceed 0.009 grains per cubic foot of air. The 0.03 gr/ft^3 is used for calculation of emissions.

5280 X .03 X 1/7000 X 60 X 1/2000 X 1733 = 1.18 TPY.

Dust Collector No. 45

Same rational as Dust Collector No. 44 above.

5280 X .03 X 1/7000 X 60 X 1/2000 X 1733 = 1.18 TPY.

Dust Collector No. 46

Support of regrind of Cement in finish mills no. 8, 9 and 10 will require operation for 480 hrs/yr.

1500 X .03 X 1/7000 X 60 X 1/2000 X 480 = 0.09 TPY.

Dust Collector No. 47

Support of regrind of Cement in finish Mill No. 8 will require operation for 480 hrs.

1500 X .03 X 1/7000 X 60 X 1/2000 X 480 = 0.09 TPY

Dust Collector No. 48

Support of regrind of Cement in finish Mill No. 9 will require operation for 1560 hr/yr.

1500 X .03 X 1/7000 X 60 X 1/2000 X 1560 = 0.30 TPY.

Dust Collector No. 49

Support of regrind of Cement in finish Mill No. 10 will require operation for 4281 hrs/yr.

1500 X .03 X 1/7000 X 60 X 1/2000 X 4281 = 0.82 TPY.

GENERAL PORTLAND INC.
TAMPA PLANT
FABRIC FILTERS

Point Number (from Flow Diagram)	Manufacturer & Model No. (if available)
Location No. 42	Industrial Filter Model AA-1015 or Equal
Name of Abatement Device	**Type of Particulate Controlled**
Dust Collector	Portland Cement Dust

GAS STREAM CHARACTERISTICS

Flow Rate (acfm)		Gas Stream Temperature (^{o}F)	Particulate Grain Loading (grain/scf)	
Design Maximum	Average Expected		Inlet	Outlet
8,000	8,000	Ambient	8	0.02

Pressure Drop (in. H_2O)	Water Vapor Content of Effluent Stream (lb water/lb dry air)	Fan Requirements (hp)	Fan Requirements (ft^3/min)
8	Ambient	30	8,000

PARTICULATE DISTRIBUTION
(By Weight)

Micron Range	Inlet	Outlet
0.0-0.5	%	%
0.5-1.0	%	%
1.0-5.0	%	%
5-10	%	%
10-20	%	%
over 20	%	%

FILTER CHARACTERISTICS

Filtering Velocity (acfm/ft^2 of Cloth)	Bag Diameter (in.)	Bag Length (ft)	Number of Bags	Number of Compartments in Baghouse
5.3	5	8	143	One

Bag rows will be:	Walkways will be provided between banks of bags:
Staggered (Straight)	Yes (No)

Filtering Material: Polyester

Describe Bag Cleaning Method and Cycle: Reverse Pulse Jets of High Pressure Air with Adjustable Cycle.

ADDITIONAL INFORMATION

ATTACHMENT VI

GENERAL PORTLAND INC.
TAMPA PLANT
FABRIC FILTERS

Point Number (from Flow Diagram)	Manufacturer & Model No. (if available)
Location No. 43	Industrial Filer Model AA-1517 or Equal
Name of Abatement Device	**Type of Particulate Controlled**
Dust Collector	Portland Cement Dust

GAS STREAM CHARACTERISTICS

Flow Rate (acfm)		Gas Stream Temperature (^{o}F)	Particulate Grain Loading (grain/scf)	
Design Maximum	Average Expected		Inlet	Outlet
18,000	18,000	Ambient	8	0.02

Pressure Drop (in. H_2O)	Water Vapor Content of Effluent Stream (lb water/lb dry air)	Fan Requirements (hp)	Fan Requirements (ft^3/min)
8	Ambient	45	18,000

PARTICULATE DISTRIBUTION
(By Weight)

Micron Range	Inlet	Outlet
0.0-0.5	%	%
0.5-1.0	%	%
1.0-5.0	%	%
5-10	%	%
10-20	%	%
over 20	%	%

FILTER CHARACTERISTICS

Filtering Velocity (acfm/ft^2 of Cloth)	Bag Diameter (in.)	Bag Length (ft)	Number of Bags	Number of Compartments in Baghouse
5.7	5	10	245	One

Bag rows will be:		Walkways will be provided between banks of bags:	
Staggered	(Straight)	Yes	(No)

Filtering Material: Polyester

Describe Bag Cleaning Method and Cycle: Reverse Plse Jets of High Pressure Air with Adjustable Cycle.

ADDITIONAL INFORMATION

ATTACHMENT VI

GENERAL PORTLAND INC.
TAMPA PLANT
FABRIC FILTERS

Point Number (from Flow Diagram)	Manufacturer & Model No. (if available)
Location No. 46	DCE VOKES Model DLM - VZO/10F
Name of Abatement Device	**Type of Particulate Controlled**
Dust Collector	Portland Cement Dust

GAS STREAM CHARACTERISTICS

Flow Rate (acfm)		Gas Stream Temperature (^{o}F)	Particulate Grain Loading (grain/scf)	
Design Maximum	Average Expected		Inlet	Outlet
1,500	1,500	Ambient	8	0.02

Pressure Drop (in. H_2O)	Water Vapor Content of Effluent Stream (lb water/lb dry air)	Fan Requirements (hp)	Fan Requirements (ft^3/min)
8	Ambient	5½	2,000

PARTICULATE DISTRIBUTION (By Weight)

Micron Range	Inlet	Outlet
0.0-0.5	%	%
0.5-1.0	%	%
1.0-5.0	%	%
5-10	%	%
10-20	%	%
over 20	%	%

FILTER CHARACTERISTICS

Filtering Velocity (acfm/ft^2 of Cloth)	Bag Diameter (in.)	Bag Length (ft)	Number of Bags	Number of Compartments in Baghouse
9.5	N/A	N/A	20	One

Bag rows will be:		Walkways will be provided between banks of bags:	
Staggered	(Straight)	Yes	(No)

Filtering Material: Polyester

Describe Bag Cleaning Method and Cycle: Reverse Pulse Jets of High Pressure Air with Adjustable Cycle.

ADDITIONAL INFORMATION

GENERAL PORTLAND INC.
TAMPA PLANT
FABRIC FILTERS

Point Number (from Flow Diagram)	Manufacturer & Model No. (if available)
Location No. 47	DCE VOKES Model DLM - VZO/10F
Name of Abatement Device	**Type of Particulate Controlled**
Dust Collector	Portland Cement Dust

GAS STREAM CHARACTERISTICS

Flow Rate (acfm)		Gas Stream Temperature (^{0}F)	Particulate Grain Loading (grain/scf)	
Design Maximum	Average Expected		Inlet	Outlet
1,500	1,500	Ambient	8	0.02

Pressure Drop (in. H_2O)	Water Vapor Content of Effluent Stream (lb water/lb dry air)	Fan Requirements (hp)	Fan Requirements (ft^3/min)
8	Ambient	5½	2,000

PARTICULATE DISTRIBUTION
(By Weight)

Micron Range	Inlet	Outlet
0.0-0.5	%	%
0.5-1.0	%	%
1.0-5.0	%	%
5-10	%	%
10-20	%	%
over 20	%	%

FILTER CHARACTERISTICS

Filtering Velocity (acfm/ft^2 of Cloth)	Bag Diameter (in.)	Bag Length (ft)	Number of Bags	Number of Compartments in Baghouse
9.5	N/A	N/A	20	One

Bag rows will be:		Walkways will be provided between banks of bags:	
Staggered	(Straight)	Yes	(No)

Filtering Material: Polyester

Describe Bag Cleaning Method and Cycle: Reverse Pulse Jets of High Pressure Air with Adjustable Cycle.

ADDITIONAL INFORMATION

ATTACHMENT VI

GENERAL PORTLAND INC.
TAMPA PLANT
FABRIC FILTERS

Point Number (from Flow Diagram)	Manufacturer & Model No. (if available)
Location No. 48	DCE VOKES Model DLM - VZO/10F
Name of Abatement Device	**Type of Particulate Controlled**
Dust Collector	Portland Cement Dust

GAS STREAM CHARACTERISTICS

Flow Rate (acfm)		Gas Stream Temperature (^{o}F)	Particulate Grain Loading (grain/scf)	
Design Maximum	Average Expected		Inlet	Outlet
1,500	1,500	Ambient	8	0.02

Pressure Drop (in. H_2O)	Water Vapor Content of Effluent Stream (lb water/lb dry air)	Fan Requirements (hp)	Fan Requirements (ft^3/min)
8	Ambient	5½	2,000

PARTICULATE DISTRIBUTION
(By Weight)

Micron Range	Inlet	Outlet
0.0-0.5	%	%
0.5-1.0	%	%
1.0-5.0	%	%
5-10	%	%
10-20	%	%
over 20	%	%

FILTER CHARACTERISTICS

Filtering Velocity (acfm/ft^2 of Cloth)	Bag Diameter (in.)	Bag Length (ft)	Number of Bags	Number of Compartments in Baghouse
9.5	N/A	N/A	20	One

Bag rows will be:		Walkways will be provided between banks of bags:	
Staggered	(Straight)	Yes	(No)

Filtering Material: Polyester

Describe Bag Cleaning Method and Cycle: Reverse Pulse Jets of High Pressure Air with Adjustable Cycle.

ADDITIONAL INFORMATION

ATTACHMENT VI

GENERAL PORTLAND INC.
TAMPA PLANT
FABRIC FILTERS

Point Number (from Flow Diagram)	Manufacturer & Model No. (if available)
Location No. 49	DCE VOKES Model DLM - VZO/10F
Name of Abatement Device	**Type of Particulate Controlled**
Dust Collector	Portland Cement Dust

GAS STREAM CHARACTERISTICS

Flow Rate (acfm)		Gas Stream Temperature (^{o}F)	Particulate Grain Loading (grain/scf)	
Design Maximum	Average Expected		Inlet	Outlet
1,500	1,500	Ambient	8	0.02

Pressure Drop (in. H_2O)	Water Vapor Content of Effluent Stream (lb water/lb dry air)	Fan Requirements (hp)	Fan Requirements (ft^3/min)
8	Ambient	5½	2,000

PARTICULATE DISTRIBUTION
(By Weight)

Micron Range	Inlet	Outlet
0.0-0.5	%	%
0.5-1.0	%	%
1.0-5.0	%	%
5-10	%	%
10-20	%	%
over 20	%	%

FILTER CHARACTERISTICS

Filtering Velocity (acfm/ft^2 of Cloth)	Bag Diameter (in.)	Bag Length (ft)	Number of Bags	Number of Compartments in Baghouse
9.5	N/A	N/A	20	One

Bag rows will be:		Walkways will be provided between banks of bags:	
Staggered	(Straight)	Yes	(No)

Filtering Material: Polyester

Describe Bag Cleaning Method and Cycle: Reverse Pulse Jets of High Pressure Air with Adjustable Cycle.

ADDITIONAL INFORMATION

ATTACHMENT VI

GENERAL PORTLAND INC.
TAMPA PLANT
FABRIC FILTERS

Point Number (from Flow Diagram) Location No. 44		Manufacturer & Model No. (if available)	
Name of Abatement Device		Type of Particulate Controlled	
GAS STREAM CHARACTERISTICS			
Flow Rate (acfm)		Gas Stream Temperature (^{o}F)	Particulate Grain Loading (grain/scf)
Design Maximum	Average Expected		Inlet / Outlet
Pressure Drop (in. H_2O)		Water Vapor Content of Effluent Stream (lb water/lb dry air)	Fan Requirements (hp) (ft^3/min)

PARTICULATE DISTRIBUTION
(By Weight)

Micron Range	Inlet	Outlet
0.0-0.5	%	%
0.5-1.0	%	%
1.0-5.0	%	%
5-10	%	%
10-20	%	%
over 20	%	%

FILTER CHARACTERISTICS

Filtering Velocity (acfm/ft^2 of Cloth)	Bag Diameter (in.)	Bag Length (ft)	Number of Bags	Number of Compartments in Baghouse

Bag rows will be: Staggered / Straight	Walkways will be provided between banks of bags: Yes / No

Filtering Material:

Describe Bag Cleaning Method and Cycle:

ADDITIONAL INFORMATION

Information considered proprietary by manufacturer of Vacuum Unloading System and not available at this time.

ATTACHMENT VI

GENERAL PORTLAND INC.
TAMPA PLANT
FABRIC FILTERS

Point Number (from Flow Diagram)	Manufacturer & Model No. (if available)
Location No. 45	
Name of Abatement Device	***Type of Particulate Controlled***

GAS STREAM CHARACTERISTICS

Flow Rate (acfm)		Gas Stream Temperature (^{o}F)	Particulate Grain Loading (grain/scf)	
Design Maximum	Average Expected		Inlet	Outlet

Pressure Drop (in. H_2O)	Water Vapor Content of Effluent Stream (lb water/lb dry air)	Fan Requirements (hp) (ft^3/min)

PARTICULATE DISTRIBUTION
(By Weight)

Micron Range	Inlet	Outlet
0.0-0.5	%	%
0.5-1.0	%	%
1.0-5.0	%	%
5-10	%	%
10-20	%	%
over 20	%	%

FILTER CHARACTERISTICS

Filtering Velocity (acfm/ft^2 of Cloth)	Bag Diameter (in.)	Bag Length (ft)	Number of Bags	Number of Compartments in Baghouse

Bag rows will be:		Walkways will be provided between banks of bags:	
Staggered	Straight	Yes	No

Filtering Material:

Describe Bag Cleaning Method and Cycle:

ADDITIONAL INFORMATION

Information considered proprietary by manufacturer of Vacuum Unloading System and not available at this time.

ATTACHMENT VII

DATE: May 13, 1986

GENERAL PORTLAND
DALLAS, TEXAS
ATTN: Mr. William H. Winders

FROM: Fred Wuertele

RE: Air quality specifications for Docksider KV-Tampa

This is the air quality information for each of the 400 TPH units proposed for the Tampa facility:

1. Filter Area: Each vacuum kettle has an approximate filter area of 2,200 square feet.

2. Vacuum pump discharge volume: Each system is equipped with three vacuum pumps which are identical. The total volume of air discharged varies depending on the operating conditions. The rated inlet volume (three units together) is 13,200 ICFM at 18 inches Hg. Thus while the unit is in operation the air discharged from the vacuum pumps is 5,280 ACFM. While the unit is idling with the vacuum pump running, the amount of air discharged will be approximately 17,000 ACFM.

3. Particulate matter discharged from vacuum pumps:

   a. While the unit is operating at optimum capacity approximately 0.57 milligrams of dust will be contained in every cubic foot of air discharged. This means that 3,010 milligrams per minute of dust will be discharged from the system exhaust.

   b. While the unit is idling with the vacuum pump running, I estimate that the amount of particulate material discharged will be reduced to approximately 10% or 0.057 milligrams of dust per cubic foot of air discharged. This will be approximately 969 milligrams per minute of dust discharged from each system exhaust.

As you can see from above the worst case for the particulate matter discharge will be the former, however, while the unit is idling a much greater amount of air will be discharged. Please feel free to call on me directly if you require any additional information.

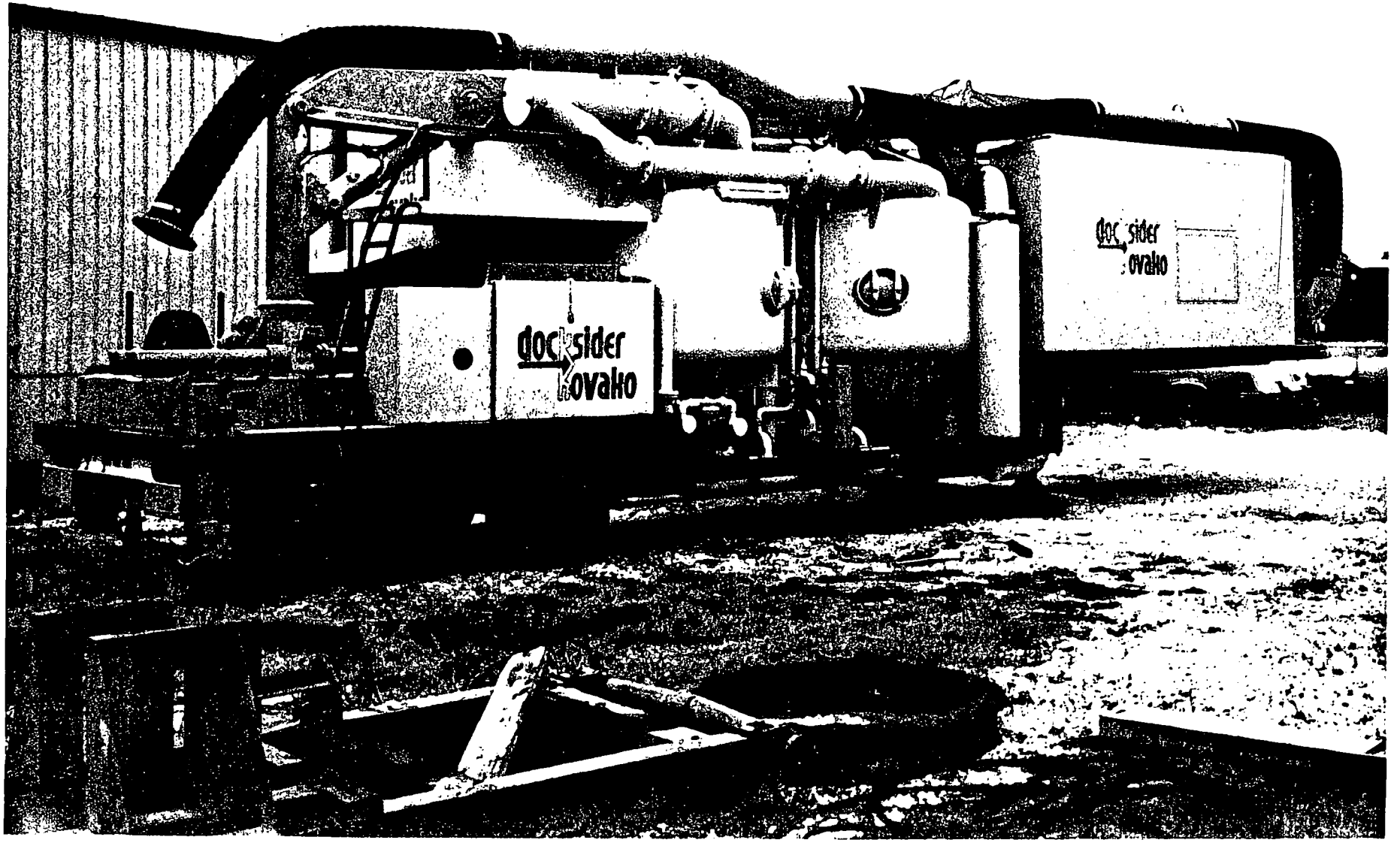
Best Regards,

FBW

Fred Wuertele
Cyclonaire Corporation

cc: Kovako

pf122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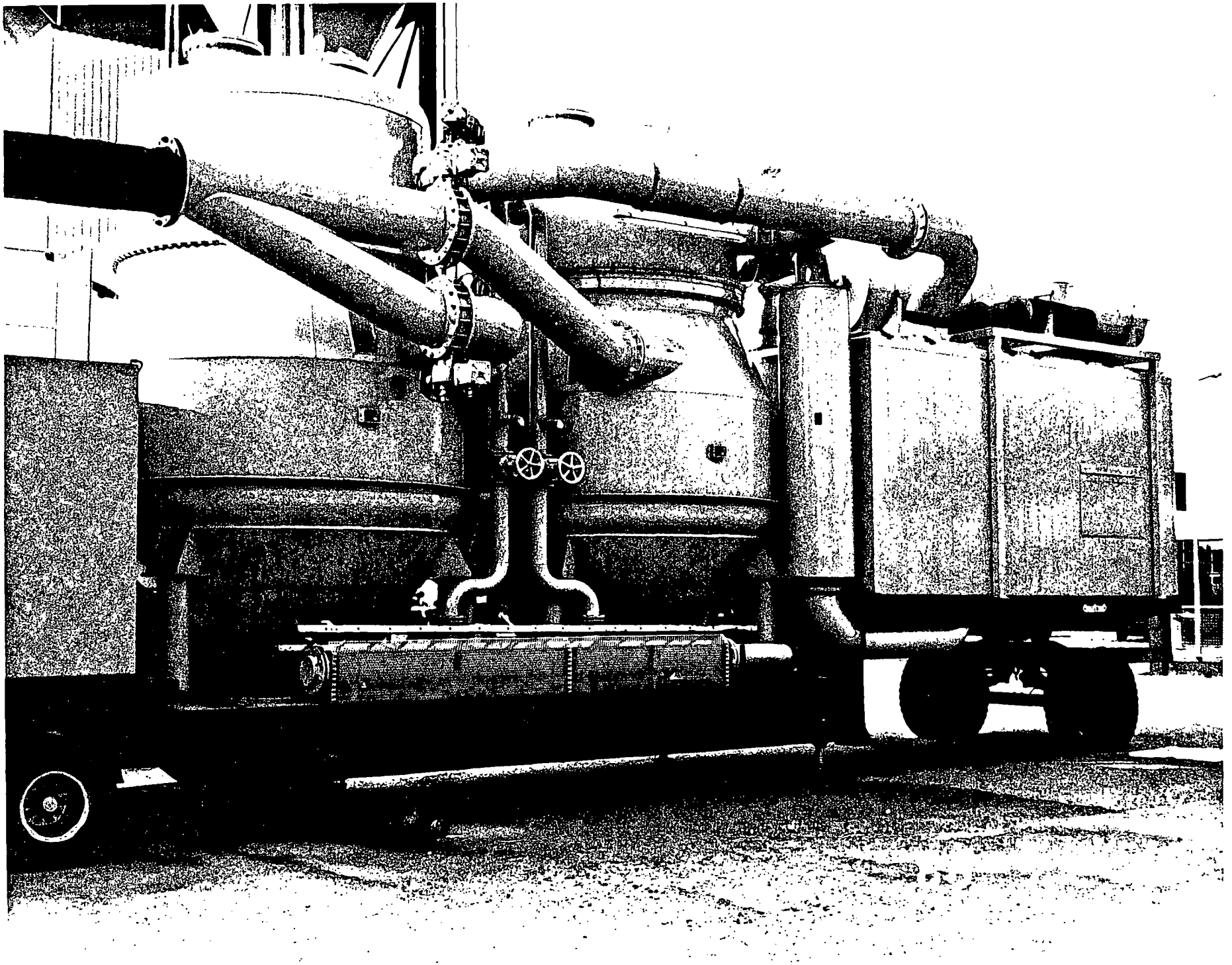


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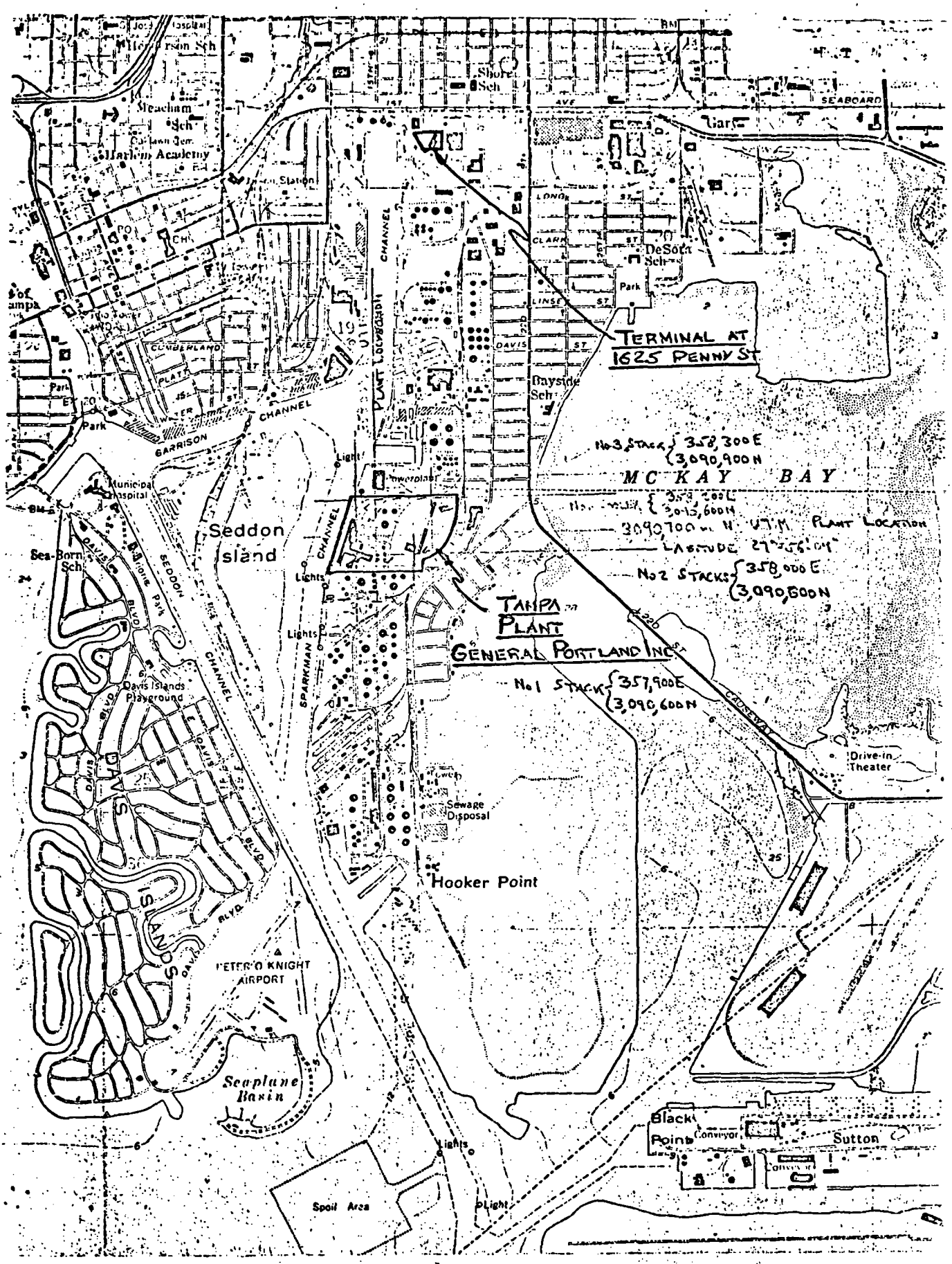
TERMINAL AT
1625 PENNY ST
No 3 STACK { 358,300 E
3,090,900 N
MC KAY BAY
No 2 STACKS { 358,000 E
3,090,800 N
TAMPA PLANT
GENERAL PORTLAND INC
No 1 STACK { 357,900 E
3,090,600 N
Seddon Island
Hooker Point
DAVIS ISLANDS
PETER O KNIGHT AIRPORT
Seaplane Basin
Spoil Area
Sewage Disposal
Drive-in Theater
Municipal Hospital
Davis Islands Playground
Harlem Academy
Meacham Sch
Bayside Sch
DeSoto Sch
Sea-Born Sch
Park
Lights
CHANNEL
SEABOARD
CAUSEWAY
Black Point
Conveyor
Sutton

General Portland Inc.

04- 085588

State of Florida
PAY: Dept of Environmental Regulation VENDOR NO: 29622 DATE: 6/27/86

VOUCHER	INVOICE NO.	INVOICE DATE	AMOUNT	DISCOUNT	NET AMOUNT
46483	Permit Fee - Modification to Construction Permit AC29-094093				
CHECK NO.					
					100. 00

General Portland Inc.

88-88
1113

04- 085588

29622	6/27/86
VENDOR NO.	MO. DAY YR. DATE

PAY 0,000,100 DOLLARS 00 CENTS $ 100.00********

NOT VALID AFTER 90 DAYS

PAY TO THE ORDER OF:

State of Florida
Dept. of Environmental Regulation
2200 Blair Stone Rd.
Tallahassee, Fl. 32301

San Angelo National Bank

MEMBER OF:
Texas Commerce Bancshares, Inc.
P.O. BOX 2558, HOUSTON, TEXAS 77001

AUTHORIZED REPRESENTATIVE

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

Nº 76128

RECEIPT FOR APPLICATION FEES AND MISCELLANEOUS REVENUE

Received from Conrad Pittard Inc. Date July 1 1986

Address P.O. Box 27 Indian Spgs 32541 Dollars $ 125.00

Applicant Name & Address [illegible]

Source of Revenue

Revenue Code [illegible] Application Number AC 39-132008

By [illegible]