orida Department of Environmental Regulation

in Towers Office Bldg. ● 2600 Blair Stone Road ● Tallahassee, Florida 32399-2400

bob Martinez, Governor Dale Twachtmann, Secretary John Shearer, Assistant Secretary

April 17, 1989

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. E. O. Morris
Gardinier, Inc.
P. O. Box 3269
Tampa, Florida 33601

Dear Mr. Morris:

Re: Sulfur Facility Permitting, AC 29-162375.

The Department has received your application package dated March 13, 1989, and deemed it incomplete. Please submit the following information including all assumptions, calculations and reference material:

1. Please provide a brief description of how emission measurements were obtained for the molten sulfur storage tanks; what the general atmospheric conditions were; what reference method was used; and, the emission numbers obtained for every run conducted.

2. What was the total annual molten sulfur throughput for the facility for the past two years? What is the typical capacity of the sulfur delivery vehicle(s)? What is the typical delivery frequency? Please estimate the expected emissions from the sulfur delivery vehicle(s) while it is at Gardinier's facility.

3. Please submit air emission estimates for any other equipment/process within (or associated with) the sulfur facility which has not yet been permitted by DER.

4. Submit air emission estimates for all the air pollutants emitted by the sources in the sulfur facility.

If you have any questions please call Pradeep Raval at (904) 488-1344 or write to me at the above address.

Sincerely,

C. H. Fancy
Deputy Chief
Bureau of Air Quality
Management

CHF/PR/plm

cc: J. Campbell, HCEPC
B. Thomas, SW District
J. Koogler, PE

file copy

KOOGLER & ASSOCIATES
ENVIRONMENTAL SERVICES
4014 NW THIRTEENTH STREET
GAINESVILLE, FLORIDA 32609
904/377-5822 • FAX 377-7158

KA 182-89-01

June 7, 1989

RECEIVED
JUN 28 1989
DER-BAQM

Mr. Clair Fancy
Florida Department of
Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Subject: Gardinier Incorporated
Molten Sulfur Facility
Permit AC29-162375

Dear Mr. Fancy:

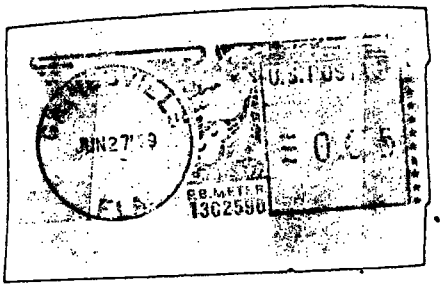
The following information is provided in response to your letter of April 17, 1989. The information should complete the construction permit application package submitted by Gardinier for their molten sulfur facility.

1. Provide a description of the emission measurements conducted on the Gardinier molten sulfur storage tanks.

   The emission measurement were conducted at molten sulfur storage tanks at Gardinier on November 7 and 8, 1988. A copy of the emission test report is attached hereto.

2. What was the total annual molten sulfur throughput from the facility for the past two years? What is the typical capacity of the sulfur delivery vehicle(s)? What is the typical delivery frequency? Please estimate the expected emissions from the sulfur delivery vehicle(s) while it is at Gardinier's facility.

   The annual sulfur throughput for 1987 and 1988 was 495,000 long tonnes and 427,000 long tonnes per year, respectively. This sulfur is delivered by ship with a typical capacity of 15,000 long tonnes. For the past two years, there were 35 separate deliveries per year; pretty much evenly distributed throughout the year. With the proposed molten sulfur throughput of 1.2 million long tonnes per year, approximately 80 shipments will be expected per year.



KOOGLER & ASSOCIATES
ENVIRONMENTAL SERVICES

4014 NW THIRTEENTH STREET
GAINESVILLE, FLORIDA 32609
904/377-5822 ▪ FAX 377-7158

TO: Mr. Clair Fancy
Florida Department of
Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

FIRST CLASS MAIL

The following assumptions were made to develop an estimate of emissions from the ships delivering molten sulfur:

Annual sulfur throughput - 1.2 million long tonnes per year

Delivery Rate - 15,000 long tonnes per shipment

Number of deliveries per year - 80

Time required to off-load sulfur - 20 hours per shipment

Total time in port - 1600 hours per year

Cargo hold ventilation rate - 50 cubic feet per minute (engineering estimate)

Sulfur particle concentration in vent gases - 0.3 grains per cubic foot (See attached test report)

Emission estimates of total reduced sulfur, hydrogen sulfide, sulfur dioxide and VOCs - assume emissions to be proportional to those from the 18,000 tonne molten sulfur storage tanks operated by Gardinier. Reduced emissions to account for the fact that the ship is in port only 1600 hours per year.

Sulfur Particle Emission

= 50 cfm x 60 min/hr x 0.3 gr/cf x 1/7000 gr/lb

= 0.13 lb/hr
x 1600/2000

= 0.10 tpy

H2S Emissions
(See response to Question No. 4 for basis of estimate)

= (15000/18000) x 0.02 lb/hr

= 0.02 lb/hr
x 1600/2000

= 0.01 tpy

KOOGLER & ASSOCIATES

TRS Emissions
(Same as H_2S)

= 0.02 lb/hr
and 0.01 tpy

SO2 Emissions
(See response to Question No. 4 for basis of estimate)

= (15000/18000) x 0.396

= 0.33 lb/hr
x 1600/2000

= 0.26 tpy

VOC Emissions
(See response to Question No. 4 for basis of estimate

= (15000/18000) x 0.16

= 0.13 tpy

3. Please submit air emission measurements for any other equipment/ processes within (or associated with) the sulfur facility which has not yet been permitted by DER.

   The ship addressed in response to Question No. 2, the three molten storage tanks and the three molten sulfur pits are the only pieces of equipment or processes associated with the molten sulfur facility that will result in the discharge of contaminants to the atmosphere.

4. Submit air emission estimates for all the air pollutants emitted by the sources in the sulfur facility.

   The emission rates of hydrogen sulfide, total reduce sulfur compounds, sulfur dioxide and VOCs have been estimated for the molten sulfur storage tanks and sulfur pits. These estimates are documented in the attached sheets. Air pollutant emissions from the ship delivering sulfur to the Gardinier terminal have been estimated in response to Question No. 2. To the best of our knowledge, the air pollutants addressed in these responses are the only air pollutants associated with the molten sulfur facility at Gardinier.

If there are any further questions related to these matters or if additional information should be required, please do not hesitate to contact me.

Very truly yours,

KOOGLER & ASSOCIATES

John B. Koogler, Ph.D, P.E.

JBK:wa
Enc.

cc: Mr. E. O. Morris
copied: P. Raval
B. Thomas SW Dist.
Q. Campbell, HCEPC
CHF/BT

REDUCED SULFUR COMPOUND OF SO2 EMISSIONS
FROM GARDINIER CHEMICAL COMPLEX
MOLTEN SULFUR HANDLING SYSTEM

REDUCED SULFUR COMPOUNDS

H_2S at TRS emissions were measured from an air purged 10,000 ton molten sulfur storage tank at Sulfur Terminals in Tampa in November 1983 (See attached report). The reported data demonstrates the H_2S and TRS emissions to be strongly dependent on the air purge rate of the tank (See attached plot of data). Based on these data, an emission rate of 0.01 lb/hr per 10,000 tons of storage capacity was estimated for both H_2S and TRS from a tank with no air purge.

GARDINIER SULFUR STORAGE CAPACITIES

Tank No. 1	-	10,000 tonnes; present	
	-	18,000 tonnes; proposed	permit basis
Tank No. 2	-	10,000 tonnes; present	
	-	18,000 tonnes; proposed	permit basis
Tank No. 3	-	18,000 tonnes	

Sulfur Pits

No. 7	-	115 tonnes
No. 8	-	115 tonnes
No. 9	-	145 tonnes

H2S EMISSIONS

Tanks at 18,000 tonnes = 19,800 tons

= [(0.01 lb/hr)/10,000 tons] x 19,800

= 0.02 lb/hr, each tank
x 8760/2000

= 0.09 tpy, each tank

Pits 7 and 8 at 115 tonnes = 126.5 tons

= [(0.01 lb/hr)/10,000 tons] x 126.5

= 0.0001 lb/hr
x 8760/2000

= 0.0006 tpy

Pit 9 at 145 tonnes = 159.5 tons

= [(0.01 lb/hr)/10,000 tons] x 159.5

= 0.0002 lb/hr
x 8760/2000

= 0.0007 tpy

TRS EMISSIONS

Same as H_2S

Tanks (each) = 0.02 lb/hr

= 0.09 tpy

Pits 7 and 8 (each) = 0.0001 lb/hr

= 0.0006 tpy

Pit 9 = 0.0002 lb/hr
<0.0007 tpy

SULFUR DIOXIDE

An SO_2 emission rate of 0.2 lb/hr per 10,000 tons of storage capacity was estimated from the TRC report (See attached).

Tanks (each) = (0.2/10,000) x 19,800 tons = 0.396 lb/hr
x 8760/2000

= 1.734 tpy

Pits 7 and 8 (each) = (0.2/10,000) x 126.5 tons = 0.003 lb/hr
x 8760/20000

= 0.011 tpy

Pit 9 = (0.2/10,000) x 159.5 = 0.003 lb/hr
x 8760/2000

= 0.014 tpy

VOLATILE ORGANIC COMPOUND EMISSIONS FROM
GARDINIER CHEMICAL COMPLEX
MOLTEN SULFUR HANDLING SYSTEM

Frasch sulfur contains 0.25 - 0.30% petroleum based contaminants which have been assumed to have the property of crude oil. Based on the typical composition of crude, it was estimated that 20% of the crude (the light ends) will be stripped from the 250°F sulfur before it reaches Florida. The crude remaining (the heavy ends) will have a vapor molecular weight of 170 lb/lb-mol and an estimated vapor pressure at 250°F of 0.6 psia (an extrapolation of AP-42 data).

Based on these estimates and assumptions, VOC emissions have been estimated using the working loss and breathing loss equations for organic compound storage tanks in Section 4.3 of AP-42. The "petroleum" content of the stored material was estimated to be 80% (heavy ends) of the original 0.275% contaminant level.

BREATHING LOSSES

Fraction crude	=	0.8 x 0.275% = 0.0022
Vapor pressure	=	0.6 psia at 250°F
Vapor mol. wt.	=	170
Differential tank temperature	=	10°F/day
Equation factors	=	1 (maximum)

Tanks (each)

Dia	=	125 ft.
Head Space	=	6 ft.
Fraction of Sulfur thruput	=	33.3% each

Pits 7 and 8 (each)

Equivalent Dia	=	20.5 ft.
Head Space	=	2.0 ft.
Fraction of Sulfur thruput	=	33.3%

Pit 9

Equivalent Dia	=	23.1 ft.
Head Space	=	2.0 ft.
Fraction of Sulfur thruput	=	33.3%

L_B (lb/yr) = $2.26 \times 10^{-2} \times 0.0022$ Fraction crude

$\times$ 170 mol. wt.

$\times [0.6/(14.7-0.6)]^{0.68}$ Vap. pressure

$\times (D)^{1.73}$ Diameter

$\times (H)^{0.51}$ Head Space

$\times (10)^{0.5}$ Temp differential

$\times$ 1 Various factors

$\times$ Fraction of Sulfur thruput

L_B (Tanks), each = 11.0 lb/yr

L_B (Pits 7 and 8), each = 0.3 lb/yr

L_B (Pit 9) = 0.3 lb/hr

WORKING LOSSES

Fraction crude = 0.0022

Vapor pressure = 0.6 psia at 250°F

Vapor mol. wt = 170 lb/lb-mol

Turn Over Factor

System tank stg. capacity = 54,000 tonnes

System thruput = 1,200,000 tonne/yr

Turn overs 22

Turn over factor = 1.0 (use for all tanks)

Pit stg. capacity = 375 tonnes

System thruput = 1,200,000 tonne/yr

Turn overs 3200

Turn over factor = 0.25 (use for all pits)

Thruput = 1,200,000 tpy x 2200 lb/ton x 1/15 lb/gal

= 176,000 x 10^3 gal/yr

Tanks = 33.3% each

Pits = 33.3% each

Lw	=	$2.40 \times 10^{-2} \times 0.0022$	Fraction crude
		x 170	mol. wt.
		x 0.6	Vapor pressure
		x T	Turn over factor
		x 1	Other factors
		x F	Fraction thruput
Lw (Tanks) each	=	325.6 lb/yr	
Lw (Pits) each	=	78.9 lb/hr	

TOTAL VOC

Tanks (each)	=	11.0 + 315.6	=	326.6 lb/yr	=	0.16 tpy
Pits 7 and 8 (each)	=	0.3 + 78.9	=	79.2 lb/yr	=	0.04 tpy
Pit 9	=	0.3 + 78.9	=	79.2 lb/yr	=	0.04 tpy

KOOGLER & ASSOCIATES
ENVIRONMENTAL SERVICES

4014 NW THIRTEENTH STREET
GAINESVILLE, FLORIDA 32609
904/377-5822 ▪ FAX 377-7158

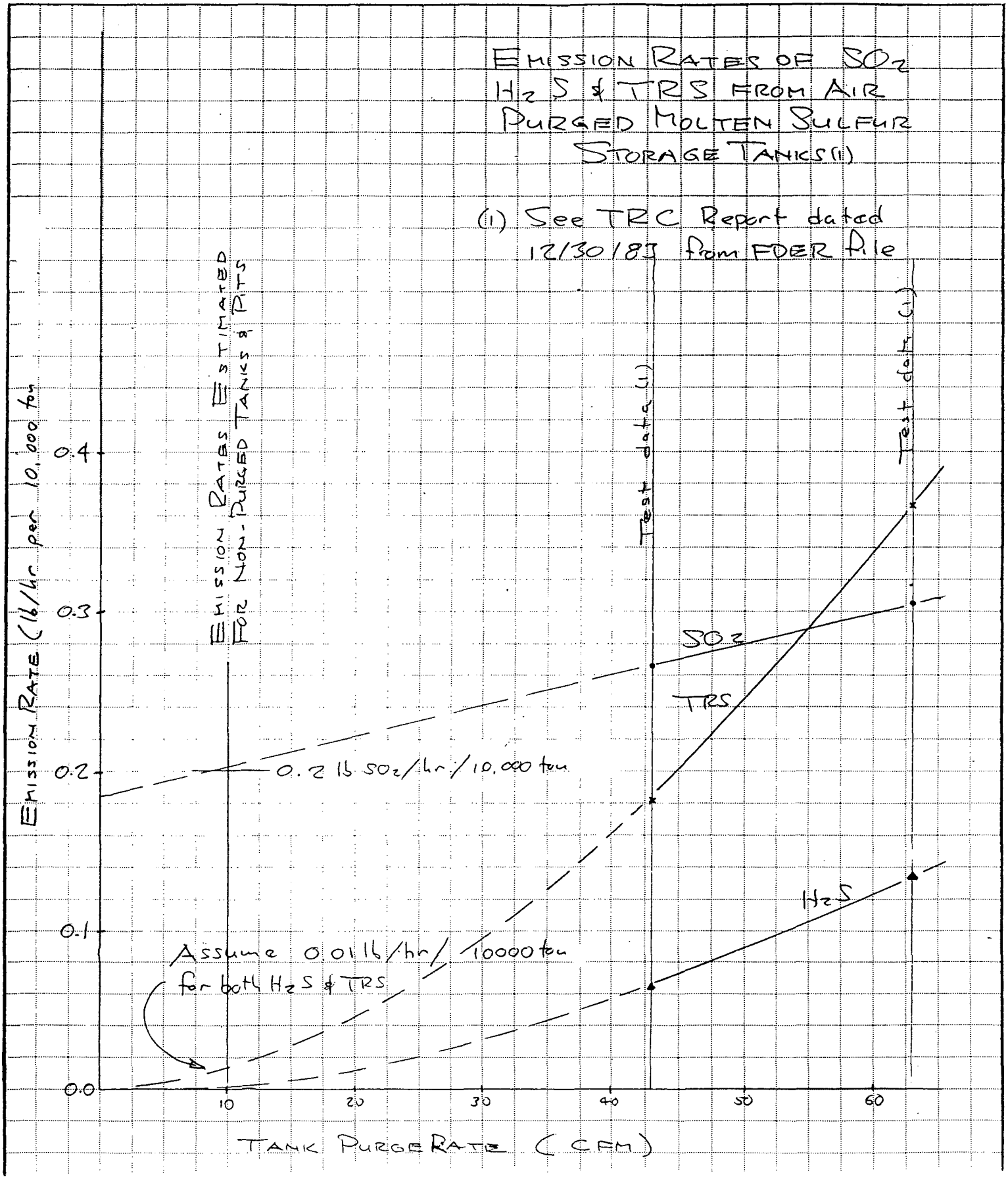
JOB _____

CALCULATED BY JOHN B. KOOGLER. P.E. DATE 5/26/89

SHEET NO. _____ OF _____

EMISSION RATES OF SO_2 H_2S & TRS FROM AIR PURGED MOLTEN SULFUR STORAGE TANKS(1)

(1) See TRC Report dated 12/30/83 from FDER file



KOOGLER & ASSOCIATES
ENVIRONMENTAL SERVICES
4014 NW THIRTEENTH STREET
GAINESVILLE, FLORIDA 32609
904/377-5822 • FAX 377-7158

RECEIVED
JUL 10 1989
DER - BAQM

KA 182-89-01

July 8, 1989

Mr. Clair Fancy
Florida Department of
Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Subject: Gardinier, Inc.
Molten Sulfur Facility
Permit AC29-162375

Dear Mr. Fancy:

Enclosed is a copy of our report describing the results of particulate matter emission measurements we conducted on the molten sulfur storage tanks at Gardinier, Inc. in Tampa, Florida on November 7 and 8, 1988.

This report should have accompanied my letter to you dated June 7, 1989 (copy attached), in which I supplied additional information needed to complete the construction permit application package submitted by Gardinier for their molten sulfur storage facility.

If you have further questions related to the permit application or if you require additional information, please do not hesitate to contact me.

Very truly yours,

KOOGLER & ASSOCIATES

John B. Koogler/MB

John B. Koogler, Ph.D, P.E.

JBK:mab

KOOGLER & ASSOCIATES
ENVIRONMENTAL SERVICES
4014 NW THIRTEENTH STREET
GAINESVILLE, FLORIDA 32609
904/377-5822 ▪ FAX 377-7158

RECEIVED
SEP 25 1989
DER - BAQM

KA 182-89-01

September 22, 1989

Mr. Clair Fancy
Florida Department of
Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Subject: Gardinier, Inc.
Molten Sulfur Facility
Permit AC29-162375

Dear Mr. Fancy:

I have had the opportunity to review the Technical Evaluation and Preliminary Determination for the subject air permit and would like to comment on the permitted sulfur dioxide emissions.

Subsequent to the submission of the permit applications for Gardinier and my letter of June 7, 1989, providing additional information related to the application, I received better substantiated information related to sulfur dioxide emissions from molten sulfur storage tanks. The data I received indicates that sulfur dioxide emissions from molten sulfur storage tanks and sulfur pits are more a function of the ventilation rate than the storage capacity or throughput rate (as assumed when I prepared the Gardinier application).

Because of these new data and my analysis of the data, I am presenting new estimates of sulfur dioxide emissions for the average hourly and annual periods for the three molten sulfur tanks (Tanks 1, 2, and 3), for the three sulfur pits (Pits 7, 8, and 9) and for the ship delivering sulfur to Gardinier. The revised sulfur dioxide emission rates are proportional to the ventilation rates reported for the tanks (30 cubic feet per minute), the ventilation rates reported for the sulfur pits (five cubic feet per minute) and the ventilation rate reported for the ship. The sulfur dioxide concentration in the vented gas streams was estimated to be 440 ppm or 7.3×10^{-5} pounds per cubic foot based upon emission measurements made by Enviroplan, Inc. and reported to the Department.

Based upon these parameters, the average hourly sulfur dioxide emission rate from each of the three sulfur storage tanks will be 0.13 pounds per hour (30 cubic feet per minute at 440 ppm SO_2) and the annual emission rate

KOOGLER & ASSOCIATES
ENVIRONMENTAL SERVICES
4014 NW THIRTEENTH STREET
GAINESVILLE, FLORIDA 32609

GAINESVILLE FLA. SEP 22 '89
U.S. POSTAGE
PB METER 1302590
$.25

Mr. Clair Fancy
FDER
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

from each tank will be 0.6 tons per year. Sulfur dioxide emissions from each of the three molten sulfur pits will be about 0.02 pounds per hour and 0.1 tons per year (five cubic feet per minute at 440 ppm) and emissions from the ship will be about 0.22 pounds per hour and 0.2 tons per year (50 cubic feet per minute at 440 ppm for 1600 hours per year).

If there are any questions regarding these suggested revisions, please do not hesitate to contact me.

Very truly yours,

KOOGLER & ASSOCIATES

John B. Koogler, Ph.D, P.E.

JBK:wa

cc: Mr. E.O. Morris
Mr. Pradeep Ravel
Harry Kerns, SW Dist.
Ed Svec, EPCHC
CHF/BT

GARDINIER INC.

8813 Hwy 41 South o Riverview, Florida 33569 o Telephone 813 — 677-9111 o TWX 810 — 876-0648 o Telex 52666 o Cable - Gardinphos

October 5, 1989

Florida Department of Environmental
Regulation
Twin Towers Office Bldg.
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Subject: Proof of Publication
Notice of Intent To Issue
A Permit to Gardinier, Inc.
For Existing Molten Sulfur Storage &
Handling System

Dear Sir:

You will find attached Proof of Publication of receipt by Florida State Department of Environmental Regulation of an application for above listed permit from Gardinier, Inc.

If there are any questions, please contact me.

Sincerely,

E. O. Morris/gf

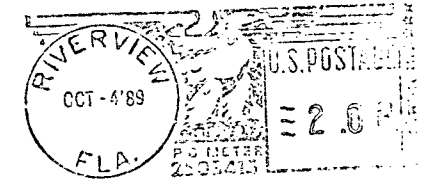
E. O. Morris
Environmental Manager

:gf

cc: Hooshang Boostani/HCEPC
W. Thomas/DER/TPA
File P-15

GARDINIER INC.
P. O. BOX 3269 TAMPA, FLORIDA 33601

GIBSONTON
DROP SHIPMENT
AUTHORIZATION 1



Fold at line over top of envelope to the right of the return address.

CERTIFIED

P 723 750 581

MAIL

FLORIDA DEPARTMENT OF ENVIRONMENTAL
REGULATION
TWIN TOWERS OFFICE BLDG.
2600 BLAIR STONE ROAD
TALLAHASSEE, FL 32399-2400

THE TAMPA TRIBUNE

Published Daily
Tampa, Hillsborough County, Florida

State of Florida
County of Hillsborough } ss.

RECEIVED
BUR. OF PERM.
OCT 06 1989

Before the undersigned authority personally appeared G. T. Gleason, who on oath says that he is Controller of The Tampa Tribune, a daily newspaper published at Tampa in Hillsborough County, Florida; that the attached copy of advertisement being a LEGAL NOTICE

in the matter of ENVIRONMENTAL REGULATION

was published in said newspaper in the issues of September 27, 1989

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

G. T. Gleason

Sworn to and subscribed before me, this 27th *day of* September, *A.D. 19* 89.

Tanya Poole
Notary Public, State of Florida
My Commission Expires Sept. 8, 1992
Bonded Thru Troy Fain-Insurance Inc.

(SEAL)

State of Florida
Department of
Environmental Regulation
Notice of Intent to Issue

The Department of Environmental Regulation hereby gives notice of its intent to issue a permit to Gardinier, Inc., Post Office Box 3269, Tampa, FL 33601, for the existing molten sulfur storage and handling system located at Gardinier's facility in Gibsonton, near Tampa, Hillsborough County, Florida. A determination of the Best Available Control Technology (BACT) was not required. The Department is issuing this intent to issue for the reasons stated in the Techical Evaluation and Preliminary Determination.

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

The Petition shall contain the following information;

(a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;

(b) A statement of how and when each petitioner received notice of the Department's action or proposed action;

(c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;

(d) A statement of the material facts disputed by Petitioner, if any;

(e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action; (f) A statement of which rules or statutes petitioner contents require reversal or modification of the Department's action or proposed action; and (g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

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

The application is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Department of
Environmental Regulation
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, Florida
32399-2400

Dept. of Environmental
Regulation
Southwest District Office
4520 Oak Fair Boulevard
Tampa, Florida 33610-7347

Hillsborough County
Environmental Protection
Commission
1410 North 21st Street
Tampa, Florida 33605

Any person may send written comments on the proposed action to Mr. Bill Thomas at the Department's Tallahassee Address. All comments mailed within 14 days of the publication of this notice will be considered in the Department's final determination.

4223 9/27/89

GARDINIER INC.

8813 Hwy 41 South o Riverview, Florida 33569 o Telephone 813 — 677-9111 o TWX 810 — 876-0648 o Telex 52666 o Cable - Gardinphos

November 20, 1989

CERTIFIED 747 278 408

Mr. Clair H. Fancy
Florida Department of Environmental Regulation
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Subject: Molten Sulfur Storage and Handling System
Permit No. AC29-162375

Dear Mr. Thomas:

The purpose of this letter is to request an amendment to the above-referenced permit (AC29-162375) to increase the maximum permitted molten sulfur throughput rate from 2,400 tons per day (TPD) and 900,000 tons per year (TPY) to 2,466 TPD and 900,100 TPY.

The current sulfur throughput limit specified in Specific Condition #2 of the permit was established based on a combined maximum sulfuric acid production rate of 7,300 TPD for Plant Nos. 7, 8, and 9. However, the No. 9 sulfuric acid plant permit (AO29-157890) has recently been modified to increase the allowable production rate from 2,600 TPD to 2,800 TPD, resulting in a new combined maximum sulfuric acid production rate of 7,500 TPD.

This requested increase in sulfur throughput of less than 3% will not change the estimated maximum emissions from the sources as specified in Specific Condition #8 of the permit, and no increase in allowable emissions is being requested. Gardinier will conduct all compliance tests and comply with the emission limitations as currently established.

Should you have any questions or require additional information, please feel free to contact me at your earliest convenience.

Sincerely,

David B. Jellerson

David B. Jellerson, P.E.
Environmental Supervisor
:gf
cc: Bill Thomas, FDER
Jerry Campbell, HCEPC
H. Mathot, O.Morris, D. Clark, R. Fernandez
P-15
P. Raval
CHF/BT

We've Changed
OUR ADDRESS...

GARDINIER INC.
8813 HWY. 41 SOUTH
RIVERVIEW, FLORIDA 33569

State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

Interoffice Memorandum

TO: Dale Twachtmann

FROM: Steve Smallwood

DATE: December 6, 1989

SUBJ: Approval of Amendment to Gardinier Inc.'s Construction Permit No. AC 29-162375

Attached for your approval and signature is a permit amendment prepared by the Bureau of Air Regulation for Gardinier Inc., for the existing molten sulfur system at Gardinier's facility in Gibsonton , Hillsborough County, Florida.

I recommend your approval and signature.

attachment

SS/pr

Please call Patty Adams when signed 8-1344

Florida Department of Environmental Regulation

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

Bob Martinez, Governor Dale Twachtmann, Secretary John Shearer, Assistant Secretary

December 8, 1989

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. E. O. Morris
Gardinier, Inc.
8813 Highway 41 South
Riverview, Florida 33569

Dear Mr. Morris:

Re: Amendment to Permit No. AC 29-162375, Molten Sulfur Storage and Handling System

The Department has reviewed Mr. David Jellerson's request dated November 20, 1989, to increase the molten sulfur throughput rate from 2400 tons per day (TPD) to 2466 TPD. According to the discussion with Mr. Jellerson on November 28, 1989, the annual molten sulfur throughput and the emission limitations will remain unchanged.

The Department is in agreement with Gardinier's request and so the following shall be changed and added to the above mentioned permit:

Specific Condition No. 2 Change

From: The maximum molten sulfur throughput rate shall neither exceed 2400 tons per day (TPD), nor 900,000 tons per year (TPY), based on the combined maximum permitted sulfuric acid production rate of 7300 TPD 100% sulfuric acid for plants Nos. 7, 8, and 9.

To: The maximum molten sulfur throughput rate shall neither exceed 2500 tons per day (TPD) nor 900,000 tons per year (TPY), based on the continued maximum permitted sulfuric acid production rate of 7500 TPD 100% sulfuric acid for plants Nos. 7, 8, and 9.

Attachments to be Added

7. Gardinier's letter dated November 20, 1989.

This letter must be attached to your construction permit AC 29-162375, and shall become a part of that permit.

Sincerely,

Dale Twachtmann
Secretary

DT/plm

cc: B. Thomas, SW District
I. Choronenko, HCEPC
D. Jellerson, P.E., Gardinier