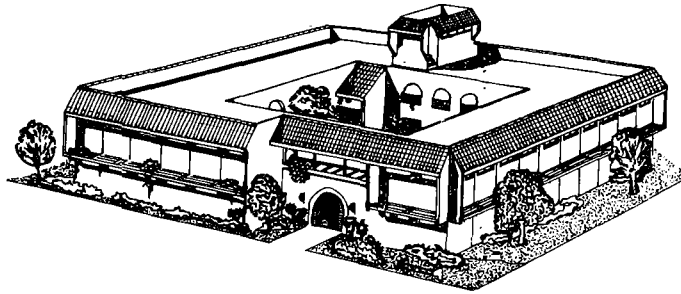


HILLSBOROUGH COUNTY
ENVIRONMENTAL PROTECTION

COMMISSION

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



ROGER P. STEWART
DIRECTOR

1900 - 9th AVE
TAMPA, FLORIDA 33605

TELEPHONE (813) 272-5960

DER

OCT 13 1986

BAQM

MEMORANDUM

Date October 10, 1986

To Maher Tambouz thru Clair Fancy, DER
From Henry Robert Lue thru Jerry Campbell, EPC *VSA for JK*
Subject: Construction Permit for General Portlands Vacuum Unloading and Storage Systems

I have reviewed the permit application and all related correspondence, and therefore submit this drafted "permit" as an aid in drafting the construction permit.

If I can be of further assistance, please call.

SPECIFIC CONDITIONS:

1. All applicable rules of the department including design discharge limitations specified in the application shall be adhered to. The permit holder may also need to comply with county, municipal, federal, or other state regulations prior to construction [Section 17-4.07(1), F.A.C.]. (DER #85)
2. If the permittee chooses to construct the sources covered under this permit, then the construction of the second phase of the clinker unloading system (controlled by baghouses #29, 30, 31 and 32) covered under permit AC29-094093 is prohibited.
3. The amount of clinker unloaded shall not exceed 720,000 tons per year.
4. The maximum unloading rate of clinker shall not exceed 500 tons per hour.
5. The amount of cement unloaded shall not exceed 900,000 tons per year.
6. The maximum unloading rate of cement shall not exceed 1100 tons per hour.
7. Pursuant to Subsection 17-2.650(2)(c)11.b., F.A.C., the maximum allowable emission rates and operating hours based on design flow rates shall not exceed the following:

CLINKER

<u>Dust Collector</u>	<u>Pollutant</u>	<u>lb/hr</u>	<u>TPY</u>	<u>hr/yr</u>	<u>Design Flow Rate, ACFM</u>
#26	TSP	2.57	0.93	720	10000
#27	TSP	4.63	1.67	1440	18000
#28	TSP	3.08	2.22	1440	12000

✓ 12. The Hillsborough County Environmental Protection Commission shall be notified in writing 15 days in advance of any compliance test to be conducted on this source. (DER #100)

✓ 13. Submit for this facility, each calendar year, on or before March 1, an emission report for the preceding calendar year containing the following information as per Section 17.4.14, F.A.C.

(A) Annual amount of materials and/or fuels utilized.

(B) Annual emissions (note calculation basis).

(C) Any changes in the information contained in the permit application.

Duplicate copies of all reports shall be submitted to the Hillsborough County Environmental Protection Commission. (DER #102)

✓ 14. All reasonable precautions shall be taken to prevent and control generation of unconfined emissions of particulate matter in accordance with the provision in Section 17-2.610(3), F.A.C. These provisions are applicable to any source, including, but not limited to, vehicular movement, transportation of materials, construction, alterations, demolition of wrecking, or industrial related activities such as loading, unloading, storing and handling. (DER # 74)

* 15. Pursuant to Section 17-4.09, F.A.C., an application for renewal of permit to operate this source shall be submitted to the Hillsborough County Environmental Protection Commission at least 60 days prior to its expiration date and no later than 45 days following the compliance testing required under specific condition #8. (DER #105)

✓ 16. All the information required in Subsection 17-2.650(2)(d), & (g), F.A.C., must be submitted with the operating permit application.

PERMITTEE:

Name: Mr. Eric H. Sundguist, Vice President & General Manager
Company: General Portland, Inc.
Address: 1111 North Westshore Blvd.
Tampa, Florida 33612

Project: Vacuum Unloading & Storage Systems

Description:

For the construction of a cement vacuum unloading system, the associated conveying systems, two 15,000 ton cement storage silos, and the four dust collectors of the drag conveyors at the Mill Feed Silos. Cement is removed from ships by two vacuum units at a maximum rate of 1100 tons/hr. The vacuumed material is temporarily held in the two "vacuum silos" then transferred to the No. 7 conveyor belt via air slides. From the No. 7 conveyor belt, the material is transferred to a "Y" conveyor unit which serves to transfer the cement material directly to the No. 9 conveyor belt of the Feed Mill Silos, or to transfer cement to an air slide-bucket elevator - air slide system leading to the two 15,000 ton cement storage silos. Each silo has an associated truck loading station with two truck loading spouts. Cement from the silos can also be transferred to the Mill Feed Silos via another air slide-bucket elevator - air slide system.

The No. 7 conveyor belt is also used to transport cement clinker from ships. The clinker is unloaded onto the belt, conveyed and stored into the Mill Feed Silos. Emissions from the unloading process are primarily controlled by dust collectors 27 & 28. Dust collector #26 is used on an as needed basis.

Emissions from the two "vacuum silos" are controlled by two 5280 ACFM dust collectors, designated dust collectors #44 and #45. Emissions from air slide to the No. 7 conveyor belt are controlled by the existing dust collectors #27 and #28. Emissions from the air slide-bucket elevator - air slide system leading to the 15,000 ton silos and the silos themselves are controlled by a 8000 ACFM and a 10,000 ACFM dust collector, designated as dust collectors #42 and #43. Emissions from the two truck loading stations are controlled by two 7000 ACFM dust collectors, designated as dust collectors #51 and #52. Emissions from the air slide-bucket elevator - air slide system leading to Mill Feed Silos are controlled by a 4000 ACFM dust collector, designated as dust collector #50. Emissions from the four drag conveyors of the Mill Feed Silos are controlled by four 1500 ACFM dust collectors, designated as dust collectors #46, #47, #48, and #49, respectively.

The new cement vacuum unloading system will require the use of dust collectors #27 and #28 controlling emissions from the No. 7 conveyor belt. However, these two dust collectors are already covered under operating permits #A029-115401 and A029-115402 and part of construction permit #AC29-094093. Therefore, before a new construction permit can be issued the following rational must be considered:

1. Construction permit AC29-094093 - Clinker Unloading, Transfer, and Storage (Phase I & II) - included two 30,000 ton capacity clinker storage silos, seven (7) dust collectors - #26, #27, #28, #30, #31, & #32, and the associated conveying systems.

The new proposal explicitly negates the construction of Phase II of the project which includes the two (2) 30,000 ton capacity clinker storage silos, and all other emission sources controlled by dust collectors #29, #30, #31, and #32. Therefore, it is necessary to include a specific condition in the new construction permit to prohibit the use of dust collectors #29, #30, #31, and #32.

2. Operating permits A029-115401 and A029-115402 - the "Clinker Transfer Points" controlled by dust collectors #27 and #28 must be modified (after modifying CAPs issued permit #AC29-094093). The new proposal, "Cement Unloading, Transfer, and Storage", will require more operating time than the 720 hr/yr per source stipulated in the original construction and operating permits. In fact, General Portland, Inc. would like the hours of operation to be increased to 1733 hours/year for each of the two sources controlled by dust collectors #27 & #28. They would also like to retain the permits to continue unloading clinker in the event that they someday may have to revert to grinding clinker.

With Phase II of the 'Clinker Project' scrapped, clinker will be unloaded directly into the Mill Feed Silos via the #7 conveyor belt at a maximum rate of 500 tons per hour. The construction and operating permits allow a maximum of 720,000 tons of clinker to be unloaded per year. Therefore, the new modified permit should show the new operating times calculated as follows:

$$720,000 \frac{\text{ton}}{\text{yr}} \times \frac{\text{hr}}{500 \text{ ton}} = 1440 \frac{\text{hr}}{\text{yr}}$$

At these operating hours, the total emissions from dust collectors #27 & #28 base on design flow rates and 0.03 grain/dscf (RACT allowable) would be 3.34 TPY and 2.22 TPY respectively. However, as far as accountable emissions for New Source Review, only a design flow rate of 6000 ACFM @ 0.03 grain/dscf resulting in an emission rate of 1.11 TPY should be accounted for at point #28. The reason being that this point has been in existence for years and was recently modified by installing an additional 6000 ACFM baghouse and replacing the old fan with a new 12,000 acfm fan. So, what we have now at point #28 is two independent 6000 acfm dust collectors driven by a common 12,000 acfm fan.

3. A new construction permit for the vacuum unloading of cement into two 15,000 ton capacity storage silos is recommended. The original proposal to build the system with a 30,000 ton capacity silo was changed. Along with this change, three more dust collection systems were introduced - Specifically, dust collector #42 will be removed from the truck loading station to the air slide - bucket elevator - air slide system leading to the two 15,000 ton storage silos. The two truck loading stations will have dust collectors #51 and #52 as emission control devices. The air slide - bucket elevator - air slide system leading to the Mill Feed Silos will have dust collector #50 controlling the emissions.

The emission calculations for all the dust collection systems in this new project has been correctly presented by General Portland, Inc. As far as New Source Review (NSR) is concerned the calculated emission rates exempt the facility.

General Portland, Inc. has agreed to the following operating parameters which will allow an exemption from NSR.

CLINKER UNLOADING

<u>Dust Collector</u>	<u>Hours of Operation / hr/yr</u>	<u>Emission Rate, TPY</u>
# 26	720	0.93
# 27	**1440	3.34
* # 28	**1440	1.11
		<u>5.38</u>

*Only 6000 ACFM accounted for at this point. The source was an existing source for years until it was recently modified.

**Since Phase II was scraped, it became impossible to unload clinker @ 1000 TPH. Presently, the maximum unloading rate is 500 TPH, therefore requiring a change of the already permitted 720 hr/yr to 1440 hr/yr.

CEMENT UNLOADING

<u>Dust Collector</u>	<u>Hours of Operation / hr/yr</u>	<u>Emission Rate, TPY</u>
# 27	1733	4.01
# 28	1733	1.34
# 42	1733	1.78
# 43	1733	2.23
# 44	1733	1.18
# 45	1733	1.18
# 46	3000	0.58
# 47	3160	0.61
# 48	3160	0.61
# 49	3160	0.61
# 50	1500	0.77
# 51	2100	1.89
# 52	2100	1.89
		<u>18.68</u>

The total emissions are as follows:

Total Emissions from Clinker Unloading =	5.38 TPY
Total Emissions from Cement Unloading =	<u>18.68 TPY</u>
Total TSP Emissions	<u>24.06 TPY</u>

Since total calc. TSP emissions < 25 TPY

Therefore, exempted from New Source Review.

10/09/86

DER AIR PERMIT INVENTORY SYSTEM
SOUTHWEST DISTRICT HILLSBOROUGH COUNTY

40/29/0018/42

PAGE 1

PLANT 0018	GENERAL PORTLAND	TAMPA PRIVATE FILE STATUS NEW ADD
	2001 MARITIME AVE	OTHER
	TAMPA	FL. 33601
	R.D. AUTEN	ACCR=052 SIC=3241
	P O BOX 1002	LAT=27:56:14N LON=82:26:30W
	TAMPA	UTM ZONE 17 357.9KM E. 3090.7KM N.
	FL. 33601	
	PORTLAND CEMENT MANUFACTURING	

POINT 42 CONST PATSW OPER PATSW
 ISS= / / EXP= / / ISS= / / EXP= / /
 VACUUM UNLOADING SYSTEM W/DUST COLLECTION SYSTEMS
 SOURCE= IPP=00 NEW COMM.PNTS. -
 STACK HT= 8FT DIAM= 5.0FT TEMP= 77F FLOW= 8000CFM PLUME= OFT
 BOILER CAP= OMBTU/HR FUEL FOR SPACE HEAT= .0%
 OPERATING PROCESS RATES YOR=85 RAW MATERIAL= 1100 TN/PRC
 PRODUCT 0 OTHER FUEL 0 OTHER
 NORMAL COND. DEC-FEB=99% MAR-MAY=00% JUN-AUG=00% SEP-NOV=00%
 PERMIT SCHEDULE 10HRS/DAY 7DAYS/WK 52WKS/YR
 ADR FOR 09/22/86 00HRS/DAY 0DAYS/WK 00WKS/YR
 B4=TONS/HR OF CEMENT LOADED
 COMPLIANCE NEDS=1 QRC=4 UPDATE09/86 SCHED.09/86 UPDATED10/01/86
 PERMIT=1 YOR=86 INSPECTED 09/22/86 NEXT DUE 10/01/86
 VACUUM SYSTEM INCLUDE VARIOUS CONVEYING AND STORAGE UNITS

SCC'S

3-05-006-19 YOR=85 SOURCE=P RATE= 0 MAX=1100.000 B4
 FUEL CONT SO2= .00% ASH= 0.0% OMBTU FYOR=85 CONFID=2
 CEMENT UNLOADED

POLLUTANTS MONITORED

TSP 11101 NORM= 19.45 EST/METH= 0/6 MAX.ALW= 24.06 TNS/YR.
 CTLS.PRI= 18 SEC= 0 EFF=99.9% NEXT DUE / / TEST/FREQ=0
 VE 11204 NORM= . EST/METH= / MAX.ALW= TNS/YR.
 CTLS.PRI= 18 SEC= 0 EFF=99.9% NEXT DUE / / TEST/FREQ=1

10/9/86

Maher,

This point was created to identify the construction permit. New points will be created for individual point sources when the operating permits are issued.

- Bobby Lue