COMMONWEALTH OF VIRGIN...
DEPARTMENT OF ENVIRONMENTAL QUALITY
SOURCE INSPECTION REPORT FORM

I. GENERAL INFORMATION

SOURCE NAME: Pier IX Terminal Company **REGISTRATION NO.:**60979

LOCATION: Harbor Road, Newport News 23607 **INSPECTION DATE:** 8/9/00

COUNTY NO. : 700 **PLANT ID:** 00071 **FILE NO.:** 451

SOURCE CLASS: _ A X SM _ B _ NSPS _ PSD _ NESHAP _ MACT ___

SOURCE CONTACT: Robert C. Coffey

WEATHER CONDITIONS: 93°F and overcast with 5-10 mph SW winds

TYPE OF INSPECTION:

X CMS X Complete _ Permit Completion

_ Surveillance _ Follow up

_ Stack Test _ Complaint Investigation

_ CEMS Audit: _____

OTHER (EXPLAIN) _____

ANNOUNCED INSPECTION: No

INSPECTION LEVEL PERFORMED 2 **COMPLIANCE CODE** 3

VEE PERFORMED NO

OPERATING RATE: @ 75% capacity

INSPECTOR: Jerome Brooks **STAFF CODE:** 743

CODING INFORMATION FOR COMPLIANCE STATUS

0 - UNKNOWN
1 - IN VIOLATION - NO SCHEDULE
2 - IN COMPLIANCE BY SOURCE TEST
3 - IN COMPLIANCE BY INSPECTION
4 - IN COMPLIANCE BY CERTIFICATION
5 - IN VIOLATION, MEETING SCHEDULE
6 - IN VIOLATION, NOT MEETING SCHEDULE
7 - IN VIOLATION, UNKNOWN WITH RESPECT TO SCHEDULE
8 - NO APPLICABLE REGULATION
9 - IN COMPLIANCE, CLOSED

CEDS 8/14/a TMD

mailed out 8/18/00

Pier IX Terminal Company
I.D. # 700-00071
Reg. # 60979
Date: 7/1/99

November 1987 Permit to Operate a Coal Storage & Export Facility

Permit Cond. #	Condition Summary	Source Status
Part 1, # 4	Annual Throughput of coal ≤ 30 million tons	in compliance
Part 1, # 5	Maximum storage of coal at one time ≤ 1 million tons	in compliance
Part 1, # 6	Fugitive emissions from storage piles controlled by wet suppression	in compliance
Part 1, # 7	Fugitive emissions from transfer points controlled by wet suppression	in compliance
Part 1, # 9	Opacity of visible emission from all emission points ≤ 5 %	in compliance
Part 1, #11	Each spray cycle covers 100% of yard and uses ≥ 20,000 gallons water	in compliance
Part 1, #16	Coal Storage piles are truncated and compacted	in compliance
Part 2, #6	There are records of employee training on wet suppression equipment	in compliance
Part 2, #7	There are operating procedures and maintenance records for the wet suppression equipment	in compliance

August 1995 Permit to Operate a Cement Unloading, Storage and Truck & Railcar Load Out

Permit Cond. #	Condition Summary	Source Status
3	Annual throughput of cement ≤ 500,000 tons	in compliance
4	Particulate emissions for all transfer points, conveyor belts and silos controlled by baghouses.	in compliance
6	Fugitive emissions from truck loadout system controlled by maintaining a negative pressure in the retractable chute and baghouse	in compliance
7	Particulate emissions from truck traffic controlled by wet suppression	in compliance
9	Visible Emissions from all baghouse vents ≤ 5% opacity	in compliance
15	There are maintenance records and spare parts inventory for pollution control equipment	in compliance
16	There are records of employee training on operation of pollution control equipment	Developing

I. Inspection Summary

Kinder Morgan Pier IX terminal has a November 1987 permit to operate a coal storage and export facility, and a August 1995 permit to operate a cement unloading, storage and truck & railcar loadout facility. The source has recently come under new ownership and was purchased by Kinder Morgan in January of 1999.

II. Coal Storage and Export Operation

A. Coal Transport Throughout the Facility

Coal at this facility is received by railcar and is removed within an enclosed rotary railcar dumper. Numerous nozzles located on a single header that runs the length of the dumping area supply water to the coal as it is being dumped to control fugitive dust emissions. A small amount of surfactant, an aqueous solution or soap is sometimes added per tandem dump to increase the effectiveness of the wet suppression system. A computer controls the coal transport system, but can be manually overridden if need be. After removal from the railcar, the coal is transported by a shielded conveyor belt, at a maximum rate of 1000 ft/min, up to the gantry and is dispersed into the storage piles by a retractable chute. This system can stack the coal into piles at a rate of 4800 tons per hour. The piles are compacted and truncated to reduce fugitive emissions and comply with permit condition #16. During this inspection, the rail car dumper was not in operation and subsequently no coal was being stacked into piles. Coal was being recovered, blended, and transported to a cargo ship during the inspection with minimal signs of fugitive dust emissions. The coal is transported from the piles to the ship on shielded conveyor belts. Underneath the coal piles are hoppers covered by hatches that open, allowing the coal to drop onto a conveyor belt. From there, the coal travels to the ship. Portions of the unshielded conveyor belt are equipped with a sprinkler system which is manually activated when necessary to reduce fugitive coal dust.

B. Wet Suppression System

This source uses an automated wet suppression system that is based on a K-Factor system. The system takes into consideration weather conditions, such as temperature, relative humidity, wind speed, wind direction, etc. Based on the hourly readings of these parameters, the computer determines how often the rain birds must cycle. The yard is divided into four quadrants. During a wetting cycle, water is applied to each quadrant for six minutes at a rate of 1000 gallons per minute. The source estimates that approximately 22,000 gallons of water actually reaches the coal piles which satisfies permit condition #11 which requires that each cycle will use at least 20,000 gallons of water. In addition, there are 22 rain birds located around the perimeter of the coal piles that are manually turned on when necessary and one water truck to supply water to areas where the rain birds cannot adequately reach. A printout of the K-Factor report for the last 72 hours was provided by the source. During the inspection, a contractor was repairing and painting the "A" side gantry, therefore the rain birds were not operating during the cycles for safety reasons. To adjust their work practices and still maintain compliance with the permit, the source stockpiled the majority of the coal around the "B" side gantry and doubled the cycle time on the "B" side gantry to maintain at least 20,000 gallons of water each cycle. DEQ staff observed a cycle during the inspection and did not detect a problem with this temporary practice. Officials estimated it will take approximately two weeks to finish the repairs and painting on the "A" side gantry, at that time the contractors

will begin working on the "B" side.

C. Throughputs and Permit Limits

Permit condition #4 limits the facilities coal throughput to 30 million tons per year. Records provided by the source indicate that from August 1999 through July 2000, the throughput of coal was 5,053,545 tons. Condition #5 of the permit limits the amount of coal stored at the facility at any one time to 1 million tons. Records indicate that the source was storing 381,744 tons of coal during the inspection. The source was in compliance with condition 4 & 5 during the inspection.

D. Record Keeping

Condition #6 and #7 of the permit mandate that the source must maintain records of employee training, operating procedures, and maintenance schedules. The source has developed a sufficient record keeping strategy for complying with these conditions since the last inspection. The records were provided to DEQ upon request.

III. Cement Unloading, Storage, and Truck and Railcar Loadout

A. Cement Transport and Storage

The source receives cement from ships. The cement travels on a covered conveyor belt to a bucket elevator which deposits it into three storage silos. Silos 1 and 3 have a rated capacity of 11,800 tons and Silo 2 has a rated capacity of 12,500 tons. All the silos appeared to be structurally sound. From the silos, the cement is gravity fed into trucks or is pumped underground to the railcar load out and loaded into railcars. During this inspection, both of these operations were observed. A cement truck was being loaded at 10,000 lbs/min. The truckload out baghouse was operating with a differential pressure of 1.5" of water, pulsating every 12 seconds with no visible emissions. A railcar load out was operating during the inspection. The railcar retractable chute was under negative pressure and the baghouse was operating, no visible emissions were detected. The source indicated that a video camera canvasses the perimeter of the railcar during loading to ensure no cement is escaping into the atmosphere. Fugitive emissions from the entire cement operation are controlled by a total of eight baghouses; five for the silo filling and off loading, one for the truck load out, and two for the railcar load out, satisfying permit condition #4.

The source had a problem with the C14 belt that carries cement to the bucket elevator. During the cement transport from the ship, millions of superficial cracks in the surface of the belt fill with cement. As the belt turns around a bend, the cement is released from the cracks into the atmosphere. The source has enclosed this belt system to reduce fugitive dust emissions. There was no activity going to the cement silos during the inspection.

B. Throughputs and Permit Limits

Permit condition #3 limits the annual throughput of cement to 500,000 tons. Records provided during the inspection indicate that from August 1999 through July 2000 the throughput of cement was 396,145 tons. The source is in compliance with this permit condition.

C. Record Keeping

Permit conditions #15 and #16 require that the source will maintain records of maintenance, spare part inventory and employee training of the pollution control equipment. Spare parts and maintenance records were provided for DEQ staff review. These records were determined acceptable by DEQ staff. Training records for control equipment associated with the cement operations are still under development.

III. General Notes

During the inspection, no fugitive coal or cement dust was detected from any of the facility operations. The K-Factor system seems to be performing adequately. The source has improved their record keeping practices. Due to improvement in record keeping the source will be given time to finish development of the training records for the cement transport control equipment.

The source has submitted a proposal to the DEQ water permit engineers through consultants, Malcolm Pirnie, to drill seven wells 25 feet deep to supply water for the existing wet suppression system. The existing 800 feet deep well produces water with high concentrations of sodium chloride that is corroding and eating away at the existing structure. The existing 800 feet deep well will then be used only as a backup if needed. This operation is scheduled to begin sometime this month.

The source was in compliance during the inspection.

INSPECTOR'S SIGNATURE: _____ **DATE:** August 11, 2000

SUPERVISOR'S COMMENTS: _____

_____

_____

SUPERVISOR'S SIGNATURE _____ **DATE:** 8/14/00

OCR

The following pages contain the Optical Character Recognition text of the preceding scanned images.

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SOURCE CONTACT: Robert C. Coffey

WEATHERCONDITIONS: 93OFandovercastwith5-10mphSWwinds

TYPE OF INSPECTION:

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Surveillance Follow up

Stack Test Complaint Investigation

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OTHER (EXPLAIN)

ANNOUNCED INSPECTION:-No

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VEE PERFORMED NO

OPERATING RATE: A 75% capacity

INSPECTOR: Jerome Brooks STAFF CODE: 743

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2 - IN COMPLIANCE BY SOURCE TEST TO SCHEDULE
3 - IN COMPLIANCE BY INSPECTION 8 - NO APPLICABLE REGULATION
4 - IN COMPLIANCE BY CERTIFICATION 9 - IN COMPLIANCE, CLOSED
5 - IN VIOLATION, MEETING SCHEDULE

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Pier IX Terminal Compahy
I.D. # 700-00071
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November 1987 Permit to Operate a Coal Storage & Export Facility
Permit Cond. Condition Summary Source Status

Part 1, # 4 Annual Throughput of coal :!@ 30 million tons in compliance

Part 1, # 5 Maximum storage of coal at one time < 1 million tons in compliance

Part 1, # 6 Fugitive emissions from storage piles controlled by wet suppressio n in compliance

Part 1, # 7 Fugitive emissions from transfer points controlled by wet suppress ion in compliance

Part 1, 9 Opacity of visible emission from all emission points:!-, 5 % in com pliance

Part 1, #1 I Each spray cycle covers 100% of yard and uses > 20,000 gallons wa ter in compliance

Part 1, #16 Coal Storage piles are truncated and compacted in compliance

Part 2, #6 There are records of employee training on wet suppression equipment in compliance

Part 2, #7 There are operating procedures and maintenance records for the wet in compliance
suppression equipment

August 1995 Permit to Operate a Cement Unloading, Storage and Truck & Railcar Load Out

Permit Cond. Condition Summary Source Status

3 Annual throughput of cement < 500,000 tons in compliance

4 Particulate emissions for all transfer points, conveyor belts and silos in c ompliance
controlled by baghouses.

6 Fugitive emissions from truck loadout system controlled by in compliance
maintaining a negative pressure in the retractable chute and baghouse

7 Particulate emissions from truck trafric controlled by wet suppression in co mpliance

9 Visible Emissions from all baghouse vents < 5% opacity in compliance

15 There are maintenance records and spare parts inventory for pollution in co mpliance
control equipment

16 There are records of employee training on operation of pollution Developing

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facility, and a August 1995 pennit to operate a cement unloading, storage and truck & railcar loadout facility.
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as it is being dumped to control fugitive dust emissions. A small amount of s urfactant, an aqueous solution or
soap is sometimes added per tandem dump to increase the effectiveness of the w et suppression system. A
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RE,