9/4/01 nt

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

Commonwealth of Virginia

Registration No: 60979

Plant Name: Kinder Morgan Energy Partners - Pier IX

Location Address: 21st and Terminal Avenue

AFS Plant ID: 700-00071

Classification: Synthetic minor

Region: TRO

AIR INSPECTION REPORT

Inspection Date: 08/13/01

Level: 2

Inspector: Daniel B Gaidos

Inspection Result: In Compliance

Contact Name: Robert Coffey

Contact Phone No: (757) 928-1520

Air Program	Subpart
SIP	

Reason:

Conduct CMS Inspection (>= level 2)

****Additional Information is Attached****

Inspector Comments:

Kinder Morgan Pier IX terminal has a November 1987 permit to operate a coal storage and export facility, and an August 1995 permit to operate a cement unloading, storage, and truck and railcar load out 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 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 needed. The source indicated that 135 gallons of water is used for each railcar that is unloaded. During the inspection, the rail car dumper was in operation and no fugitive emissions were detected. 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 by the use of a bulldozer. The coal is transported from the piles to cargo ships 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.

The source uses an automated wet suppression system that is based on the K-Factor system. The system takes into consideration weather conditions, such as temperature, relative humidity, wind speed, and wind direction. 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 24,000 gallons of water actually reaches the coal piles, which satisfies the permit condition. In addition, there are 22 rain birds located around the perimeter of the coal piles that are manually turned on when necessary and a water truck to supply water to areas where the rain birds cannot adequately reach. A printout of the K-Factor report for the last week was provided by the source as well as the results displayed on the computer. DEQ staff observed a cycle during the inspection and did not detect a problem with the system.

The source also 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. The cement load out area was not in operation during the inspection. Fugitive emissions from the entire cement operation are controlled by a total of eight baghouses; five for the silo filling and offloading, one for the truck load out, and two for the railcar load out. During the

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inspection a ship loaded with cement was being offloaded. The baghouse information is attached at the end of this report.

David B Snider 8/30/01

Inspector's Signature/Date

R. C. Craft 8/31/01

Manager's Signature/Date

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

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INSPECTION CHECKLIST

Permit Date or Basis	#	Requirement Narrative	Observation	Comp Status
08-08-95	3	The annual throughput of cement shall not exceed 500,000 tons, calculated as the sum of each consecutive 12 month period.	The source reported a throughput of 307,816 tons of cement for the past 12 months.	In
01-07-88	4	The yearly throughput of coal shall not exceed 30 x 10^6 tons.	Records from the source indicated the throughput of coal for the past 12 months was 5,441,955 tons.	In
01-07-88	5	The maximum quantity of coal in storage at any time shall not exceed 1.0 x 10^6 tons.	The source reported the maximum quantity of coal in storage at one time to be 405,000 tons.	In
08-08-95	6	Fugitive particulate emissions from each truck loadout system shall be controlled by automatically maintaining negative pressure in the retractable chute for not less than 15 seconds after truck loading is complete.	The truck load out system was not in operation during the inspection.	In
01-07-88	6	Fugitive coal dust emissions from the storage piles shall be controlled by a permanent wet suppression system capable of wetting the entire coal storage area.	The source maintains a rainbird system which uses wet suppression to control fugitive emissions from the storage piles.	In
08-08-95	7	Fugitive particulate emissions from truck traffic shall be controlled by industrial vacuum cleaners or by wet suppression.	Fugitive dust emissions on the truck traffic roads was minimal.	In
01-07-88	7	Coal dust emissions from the rotary dumper and transfer points shall be controlled by wet suppression which shall include the use of a surfactant.	The emissions from the rotary dumper and transfer points are controlled by wet suppression combined with a surfactant.	In
08-08-95	9	Visible emissions from any baghouse exhaust or vent filter shall not exceed five percent opacity as determined by EPA Method 9.	No visible emissions were detected from the baghouses from the cement operation during the inspection.	In
01-07-88	9	Opacity at all emission points shall be limited to less than 5 percent.	No visible emissions were detected during the inspection.	In

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Permit Date or Basis	#	Requirement Narrative	Observation	Comp Status
08-08-95	11	The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Director, Tidewater Regional Office. These records shall include, but are not limited to, the yearly throughput of cement, calculated as the sum of each consecutive twelve month period. These records shall be available for inspection by DEQ and shall be current for the most recent five years.	The source provided records for the throughput of cement and the preventative maintenance conducted at the facility. Training records for control equipment associated with the cement operations were available for review.	In
01-07-88	11	Each spray cycle shall attain 100 percent coverage of the coal storage area and shall consist of at least 20,000 gallons of water, except for assurance cycles.	The source indicated that each spray cycle uses 24,000 gallons of water.	In
01-07-88	12	Whenever Pier IX Terminal Company is using a particular piece of coal handling equipment (e.g., a dumper, a conveyor, etc.), it shall utilize the wet suppression controls for that piece of equipment unless the use of the equipment would cause a safety hazard or damage to the equipment from freezing.	No visible emissions were detected from the operation of coal handling equipment.	In

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INSPECTION CHECKLIST

Permit Date or Basis	#	Requirement Narrative	Observation	Comp Status
01-07-88	14	The following actions are considered detrimental to the control of coal emissions, but are not limited to: a. Failure to stop any coal movement operation when it becomes known that installed air pollution control systems are inoperative and would cause excess emissions. b. Failure to stop a coal movement operation when it becomes known that pieces of coal handling equipment needed for that operation are malfunctioning or operating significantly below designed specifications. c. Failure of equipment operators to take immediate precautions to preclude fugitive dust emissions from the operation of bulldozers, front-end loaders, automobiles or trucks through the use of water suppression to control the dust, or limiting the speed of movement to below 10 miles per hour. d. Failure of personnel to give precedence to controlling fugitive dust emissions over routine coal operations to personnel designed with the responsibility of controlling fugitive emissions.	None of these actions were observed during the inspection.	In
01-07-88	16	All coal storage piles shall be truncated and compacted so as to minimize fugitive coal dust emissions.	The coal storage piles were truncated and no visible emissions were detected during the inspection.	In

Baghouse Location	Status / Differential Pressure	Opacity
Ship unloader to conveyor #1	6.1 " of water	0%
Conveyor #1 to conveyor #2	3 " of water	0%
Silos #1&2 and conveyor #2 to bucket elevator	2.4 " of water	0%
Bucket elevator to aerated bottom distribution box	1 " of water	0%
Distribution box to silos #1, 2&3 through air slides	3 " of water	0%
Silo #1,2&3 (through airslide) to truck loading spout	5 " of water	0%
Silo #3 to alleviator through air slide and pipeline	Not in operation	NA
Cement truck loadout #1	Not in operation	NA
Cement truck loadout #2	Not in operation	NA

OCR

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

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Pier IX
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AIR INSPECTION REPORT

Inspection Date: 08/13/01 Contact Name: Robert Coffey

Level: 2 Contact Phone No: (757) 928-1520

Inspector: Daniel B Gaidos Air Program Subpart

Inspection Result:In Compliance SIP

Reason:

Conduct CMS Inspection (>= level 2)

Additional Information is Attached
Inspector Comments:

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and railcar load out facility. Coal at this facility is received by railcar a nd is removed
within an enclosed rotary railcar dumper. Numerous nozzles located on a singl e header that
runs the length of the dumping area supply water to the coal as it is being du mped to control
fugitive dust emissions. A small amount of surfactant 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 needed. The source indica ted that 135
gallons of water is used for each railcar that is unloaded. During the inspec tion, the rail
car dumper was in operation and no fugitive emissions were detected. After rem oval from the
railcar, the coal is transported by a shielded conveyor belt, at a maximum rat e of 1000
ft/min, up to the gantry and is dispersed into the storage piles by a retracta ble chute. This
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pumped underground to the railcar load out and loaded into railcars. The cement load out area
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Pier IX

Region: TRO

Location AdcLress: 21st and Terminal Avenue

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INSPECTION CHECKLIST

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01-07-88	5	The maximum quantity of coal in storage at any time shall not exceed 1.0 x 10^6 tons.	The source reported the maximum quantity of coal in storage at one time to be 405,000 tons.	In
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retractable chute for not less than
15 seconds after truck loading is
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the storage piles shall be rainbird system which uses
controlled by a permanent wet wet suppression to control
suppression system capable of fugitive emissions from the
wetting the entire coal storage storage piles.
area.

08-08-95 7 Fugitive particulate emissions from Fugitive dust emissions on In
truck traffic shall be controlled by the truck traffic roads was
industrial vacuum cleaners or by wet minimal.
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dumper and transfer points shall be rotary dumper and transfer
controlled by wet suppression which points are controlled by wet
shall include the use of a suppression combined with a
surfactant. surfactant.

08-08-95 9 Visible emissions from any baghouse No visible emissions were In
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determined by EPA Method 9. during the inspection.

01-07-88 9 Opacity at all emission points shall No visible emissions were In
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Distribution box to silos #1, 2&3 through air slides	3 " of water	0%
Silo #1,2&3 (through airslide) to truck loading spout	5 " of water	0%
Silo #3 to alleviator through air slide and -pipeline	Not in operation	NA
Cement truck loadout #1	Not in operation	NA
Cement truck loadout #2	Not in operation	NA