

## COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

James S. Gilmore, III Governor

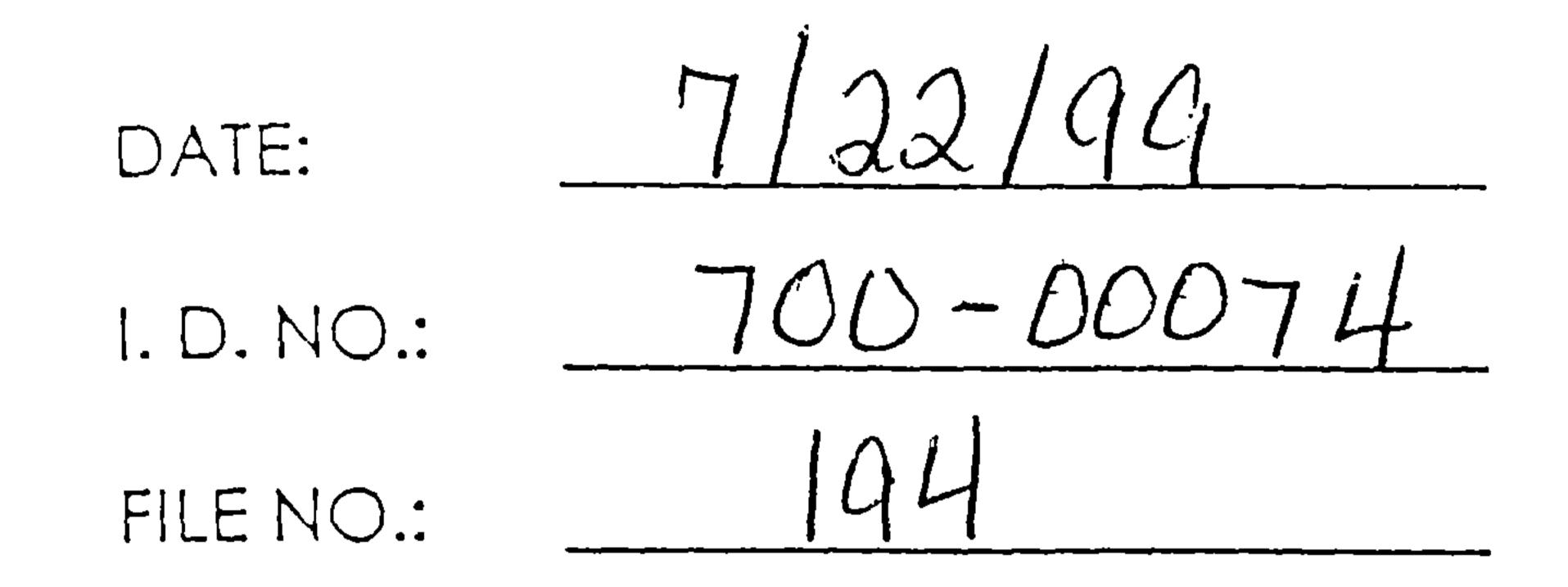
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John Paul Woodley, Jr. Secretary of Natural Resources EINT OF EINVIAOIMIEINIAL C 5636 Southern Boulevard Virginia Beach, VA 23462 (757) 518-2000 http://www.deq.state.va.us Fax (757) 518-2003

Dennis H. Treacy Director

Francis L. Daniel Tidewater Regional Director

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Enclosed is a copy of the report generated as a result of our recent

# inspection of your facility. If you have any questions, please contact me at (757) 518-2158.

#### Sincerely,

Richard C. Craft Air Compliance Manager

RCC (cm/air/form-cloc/inspcvr.ltr)

An Agency of the Natural Resources Secretarias

COMMONWEALTH OF VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY SOURCE INSPECTION REPORT FORM

#### **GENERAL INFORMATION**

**REGISTRATION NO.:60997 SOURCE NAME:** Dominion Terminal Associates

**INSPECTION DATE: 7/6/99** LOCATION: <u>Pier 11, Harbor Rd.</u>, <u>Newport News</u>

COUNTY NO. : <u>700</u> PLANT ID: <u>00074</u> FILE NO.: <u>194</u>

#### SOURCE CLASS: \_\_A X\_SM \_\_B \_\_NSPS \_\_PSD \_\_NESHAP \_\_MACT \_\_\_\_

SOURCE CONTACT: Frank Falcon & Tom Houck

#### WEATHER CONDITIONS: <u>98°F and sunny with 5-10 mph variable winds</u> **TYPE OF INSPECTION:**

 $\underline{X} CMS \underline{X} Complete$ <u>Permit Completion</u>

Surveillance

**Follow up** 

Stack Test

<u>Complaint Investigation</u>



OTHER (EXPLAIN) \_\_\_\_\_

ANNOUNCED INSPECTION: No

#### **INSPECTION LEVEL PERFORMED** <u>2</u>

#### COMPLIANCE CODE 1

VEE PERFORMED NO

**OPERATING RATE:** <u>@ 50% capacity</u>

INSPECTOR: Jerome Brooks & Tiffany Davis

STAFF CODE: 743

- **5 IN VIOLATION, MEETING SCHEDULE**
- **4 IN COMPLIANCE BY CERTIFICATION**
- **3 IN COMPLIANCE BY INSPECTION**
- 2 IN COMPLIANCE BY SOURCE TEST
- **1 IN VIOLATION NO SCHEDULE**
- 0 UNKNOWN

### **6 - IN VIOLATION, NOT MEETING SCHEDULE**

**8 - NO APPLICABLE REGULATION** 

9 - IN COMPLIANCE, CLOSED

7 - IN VIOLATION, UNKNOWN WITH RESPECT

#### **CODING INFORMATION FOR COMPLIANCE STATUS**

TO SCHEDULE

 Dominion Terminal Associa...s

 I.D. #
 700-00074

 Reg. #
 60997

 Date:
 7/6/99

#### September 1992 Permit to Operate a Coal Storage & Export Facility

Permit Cond. #	Condition Summary	Source Status
<b>Part 1, #4</b>	Fugitive Emissions from rotary rail car dumper controlled by wet suppression; each tandem dump using $\geq$ 130 gallons	in compliance
Part 1, # 5	Fugitive coal emissions from transfer points and stacker reclaimers controlled by wet suppression with use of surfactant	in compliance
Part 1, # 6	Fugitive coal emissions from conveyor belts controlled by conveyor hoods and wind guards	in compliance
Part 1, # 7	Fugitive emissions from each silo controlled by a baghouse with gauge to measure differential pressure	not in compliance
Part 1, # 8	Fugitive emissions from storage piles controlled by wet suppression system covering 100% and using $\geq$ 35,500 gal. water	in compliance
Part 1, # 9	Yearly throughput of coal ≤24 million tons	in compliance
Part 1, # 10	Maximum quantity of coal stored at one time $\leq$ 1.4 million tons	in compliance
Part 1, #15	All coal storage piles are compacted and truncated	in compliance
Part 1, # 18	Source maintains operating procedures and records of employee training for use of pollution control equipment	in compliance
Part 11, # 1	Source maintains records of coal storage and throughputs	in compliance
Part 11, # 2	Source maintains operating procedures and maintenance records for air pollution control equipment	in compliance

#### I. INSPECTION SUMMARY

Dominion Terminal Associates has a September 1992 permit to operate a coal storage and export facility. The source uses a sophisticated K-Factor program implemented by Simpson Weather Service consulting firm to control fugitive coal dust. This computerized system considers weather conditions such as temperature, wind speed, wind direction, and humidity to determine how often the source must apply water to the coal storage piles.

#### II. COAL STORAGE & TRANSPORT

Coal is transported to the facility in railcars, usually 150 at a time. During cold weather, the rail cars are sent through a thaw shed, where propane fired heaters thaw the coal. From there, the rail cars are sent to the rotary rail car dumper which is enclosed in a large building. Here the rail cars are dumped 140 degrees and emptied into hoppers at a rated capacity of 100 tons/min. Wet suppression is used to control fugitive

coal emissions as required by pertal condition part 1, #4. The wet suppret ion system consists of a water blanket over the rail car being dumped and a water curtain at the building opening. Each time a car is dumped, 140 gallons of water is used which contains a surfactant (aqueous solution or soap). The water is applied at a rate of 760 gal/min. and a pressure of 150 - 180 psi. During the inspection, one of the conveyor belts was being repaired and the rotary rail car dumper was not in use.

From the hoppers, the coal is transported via vibrating feeders to an underground conveyor belt. The coal is transported on this conveyor belt up to storage silo #1 (SS1), which has a 1000 ton capacity. From this silo the coal is either transported to storage silos #2(SS2) and #3(SS3) or to the stack/reclaimer equipment to be stacked into storage piles. From SS2 and SS3, which have a 4000 ton capacity each, the coal is transported via conveyor belts to cargo ships for export. During the inspection, a cargo ship was being loaded with coal with no visible coal emissions. No coal was being stacked at the time of inspection. All piles in the storage yard were compacted and truncated as required by permit condition part 1, #15. Piles of very fine metallurgical coal are turtle backed to avoid erosion. Each of the storage silos is equipped with a baghouse to control fugitive coal emissions as required by permit condition part 1, #7. The baghouse on SS1 was operating with no visible emissions. The baghouse on SS2 was operating with a 5.5"water pressure drop, pulsating every eight seconds with no visible emissions. The baghouse on SS3 was operating with no visible emissions. The differential pressure gauge was not operating properly at the time of inspection, for which the source was issued a Request for Corrective Action.

#### **III. WET SUPPRESSION SYSTEM**

The source uses the K-factor wet suppression system as the primary fugitive coal dust control. Seventy four rainbirds are located around the perimeter of the storage piles which are controlled by the computerized system. During each cycle, the system uses 145,000 gallons of water which satisfies permit condition part 1, #8. The K-factor system will compute the required frequency of cycles determined by an array of weather conditions. The source will often increase the frequency to ensure that the fugitive coal dust is controlled. In addition to the rainbirds, there are 4 high masts which are manually turned on when needed. If winds maintain 25 mph for 4 minutes, the high masts will automatically come on. Additionally, the source uses a water truck to ensure 100% coverage of the yard. A copy of the last week of K-Factor reports was received during the inspection. The source has a new DTN weather system which gives instantaneous weather conditions via satellite. This system allows the facility to see a storm coming, giving them time to start a rainbird cycle if needed to adequately control fugitive coal dust.

#### IV. RECORD KEEPING

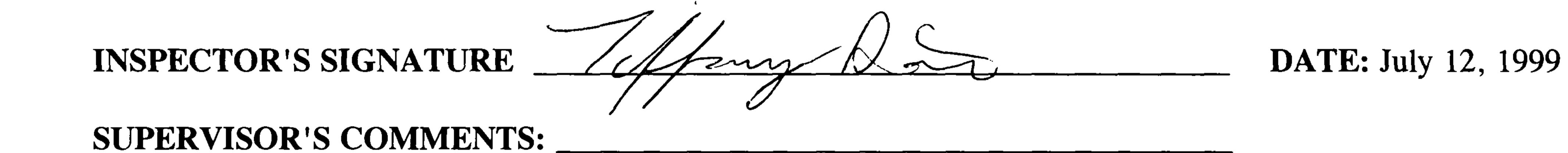
Permit part 1, condition #9 limits the annual coal throughput at the facility to 24 million tons. Records indicate that from July 1998 through June 1999, the throughput of coal was 9,930,881.66 tons. Permit part 1, condition #10 limits the coal stored at any one time to 1.4 million tons. Records provided indicate that the monthly average of coal stored at the facility from July 1998 through June 1999 was 527,407.37 tons with no monthly storage greater than 846,523.59 tons. The source is in compliance with

both of these permit conditions at this time.

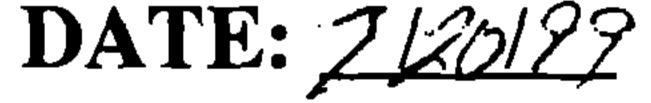
Permit part 1, condition #18 requires that the source maintain written operating procedures and records of employee training for the air pollution control equipment. These records were provided by the source during the inspection. Permit part II, condition #2 requires that the source maintain records of maintenance done on the air pollution control equipment. These records were provided by the source during the inspection. The source has recently developed a computerized system which prints out a preventative maintenance checklist when the scheduled maintenance time arrives. In addition, all maintenance which is done is entered into the computer. At this time, the source is in compliance with both of these permit conditions.

#### V. GENERAL NOTES

During the inspection, no fugitive coal dust was observed form any of the facility operations. The K-Factor System is performing adequately. The source's record keeping system has improved since the last inspection one year ago. The pressure gauge on the SS3 baghouse is in need of repair. The source is not in compliance with the permit at this time and was issued an RCA for the malfunctioning pressure gauge and given thirty days to respond in writing to DEQ.



#### SUPERVISOR'S SIGNATURE



\*\*\*OCR\*\*\*

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

#### COMMONWEALTH of VIRCjrlNIA

DEPARTNTENT OF ENVIRONNIENTAL QUALITY 5636 Southem Boulevard Dennis H. Treacy James S. Gilmore" III Governor Virgiiiia Beach, VA 23462 D irec to r (757) 518-2000 Francis L. Daniel John Paul Woodley, Jr. http:/lv,-,vw.deq.state.va.us Tldcwater Regional Direct or secretar-y of Natural Resources Fax (757) 5ig-2003

q Date:

1. D. NO.: -Mb DOU7

FILE NO.:

Enclosed is a copy of the report generated as a result of our recent inspection of your facility. -if you have anyquestions, please contact me ct (757) 518-2158.

Sincerely,

Richard C. Craft Air Campliance Manager

RCC (cm/cir/l'orm-c,oc/inspcvr.l-]'r)

An Agency of the Na:-aral Resources Secretariai

L"OMMONWEALTH OF VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY SOURCE INSPECTION REPORT FORM 1. GENERAL INFORMATION SOURCE NAME: - Dominion Terminal Associates REGISTRATION NO.:60997 LOCATION: Pier 1 1, Harbor Rd., NewWrt News INSPECTION DATE: 7/6/99 COUNTY NO.: 700 PLANT ID: 00074 FILE NO.: 194 SOURCE CLASS: -A X SM -B -NSPS -PSD NESHAP MACT SOURCE CONTACT: Frank Falcon & Tom Houck WEATHER CONDITIONS: 98'F and sunny with 5-10 mph variable 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 -1 VEE PERFORMED NO OPERATING RATE: (& 50% capacity INSPECTOR: - Jerome Brooks & Tiffany Davis STAFF CODE:-743 CODING INFORMATION FOR COMPLIANCE STATUS 0 - UNKNOWN 6 - IN VIOLATION, NOT MEETING SCHEDULE I - IN VIOLATION - NO SCHEDULE 7 - IN VIOLATION, UNKNOWN WITH RESPECT 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

Dominion Terminal Associat-s I.D. 700-00074 Reg. 60997 Date: 7/6/99 September 1992 Permit to Operate a Coal Storage & Export Facility Permit Cond. Condition Summary Source Status Part 1, #4 Fugitive Emissions from rotary rail car dumper controlled by in com pliance wet suppression; each tandem dump using > 130 gallons Part 1, # 5 Fugitive coal emissions from transfer points and stacker in compli ance reclaimers controlled by wet suppression with use of surfactant Part 1, # 6 Fugitive coal emissions from conveyor belts controlled by in compl iance conveyor hoods and wind guards Part 1, # 7 Fugitive emissions from each silo controlled by a baghouse with no t in gauge to measure differential pressure compliance Part 1, # 8 Fugitive emissions from storage piles controlled by wet in complia nce suppression system covering 100% and using @!35,500 gal. water Part 1, # 9 Yearly throughput of coal <24 niillion tons in compliance Part 1, # 10 Maximum quantity of coal stored at one time < 1.4 million tons in compliance Part 1, # 15 All coal storage piles are compacted and truncated in compliance Part 1, # 18 Source maintains operating procedures and records of employee in compliance training for use of pollution control equipment Part 11, # I Source maintains records of coal storage and throughputs in compl i Part 11, # 2 Source maintains operating procedures and maintenance records in compliance for air pollution control equipment 1. INSPECTION SUMMARY Dominion Terminal Associates has a September 1992 permit to operate a coal sto rage and export The source uses a sophisticated K-Factor program implemented by Sim facility. pson Weather Service consulting firm to control fugitive coal dust. This computerized system consi ders weather conditions such as temperature, wind speed, wind direction, and humidity to determine how often t he source must apply water to the coal storage piles. 11. COAL STORAGE & TRANSPORT Coal is transported to the facility in railcars, usually 150 at a time. Durin g cold weather, the rail cars are sent through a thaw shed, where propane fired heaters thaw the coal. From there, the rail cars are sent to the rotary rail car dumper which is enclosed in a large building. Here the ra il cars are dumped 140 degrees and emptied into hoppers at a rated capacity of 100 tons/min. Wet suppression

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coal emissions as required by peri.-.- condition part 1, #4. The wet supprt, on system consists of a water blanket over the rail car being dumped and a water curtain at the building ope ning. Each time a car is dumped, 140 gallons of water is used which contains a surfactant (aqueous solu tion or soap). The water is applied at a rate of 760 gal/min. and a pressure of 150 - 180 psi. During the inspection, one of the conveyor belts was being repaired and the rotary rail car dumper was not in use. From the hoppers, the coal is transported via vibrating feeders to an undergro und conveyor belt. The coal is transported on this conveyor belt up to storage silo #1 (SSI), which h as a 1000 ton capacity. From this silo the coal is either transported to storage silos #2(SS2) and #3(SS3) or to the stack/reclaimer equipment to be stacked into storage piles. From SS2 and SS3, which have a 40 00 ton capacity each, the coal is transported via conveyor belts to cargo ships for export. During the inspection, a cargo ship was being loaded with coal with no visible coal emissions. No coal was being stac ked at the time of inspection. All piles in the storage yard were compacted and truncated as required by perm it condition part I , #15. Piles of very fine metallurgical coal are turtle backed to avoid erosion. Each of the storage silos is equipped with a baghouse to control ftigitive coa l emissions as required by permit condition part 1, #7. The baghouse on SSI was operating with no visibl e emissions. The baghouse on SS2 was operating with a 5.5"water pressure drop, pulsating every eight sec onds with no visible emissions. The baghouse on SS3 was operating with no visible emissions. The differential pressure gauge was not operating properly at the time of inspection, for which the source was issued a Request for Corrective Action. 111. WET SUPPRESSION SYSTEM The source uses the K-factor wet suppression system as the primary fugitive co al dust control. Seventy four rainbirds are located around the perimeter of the storage piles w hich are controlled by the computerized system. During each cycle, the system uses 145,000 gallons of wa ter which satisfies permit condition part 1, #8. The K-factor system will compute the required frequency of cycles determined by an array of weather conditions. The source will often increase the frequency to ensure that the fugitive coal dust is controlled. In addition to the rainbirds, there are 4 high masts which are manually turned on when needed. If winds maintain 25 mph for 4 minutes, the high masts will automatically come on. Additionally, the source uses a water truck to ensure 1 00 % coverage of the yard. A copy of the last week of K-Factor reports was received during the inspection. The source has a new DTN weather system which gives instantaneous weather conditions via satellite. This system allows the facility to see a st orm coming, giving them time to start a rainbird cycle if needed to adequately control fugitive coal dust. IV. RECORD KEEPING Permit part 1, condition #9 limits the annual coal throughput at the facility to 24 million tons. Records indicate that from July 1998 through June 1999, the throughput of coal was 9,930,881.66 tons. Permit part 1, condition #10 limits the coal stored at any one time to 1.4 mil lion tons. Records provided

indicate that the monthly average of coal stored at the facility from July 199 8 through June 1999 was 527,407.37 tons with no monthly storage greater than 846,523.59 tons. The sou rce is in compliance with both of these permit conditions at this time. Permit part 1, condition #18 requires that the source maintain written operati ng procedures and records of employee training for the air pollution control equipment. These r ecords were provided by the source during the inspection. Permit part 11, condition #2 requires that the source maintain records of maintenance done on the air pollution control equipment. These records were p rovided by the source during the inspection. The source has recently developed a computerized system which prints out a preventative maintenance checklist when the scheduled maintenance time arrives. In additio n, all maintenance which is done is entered into the computer. At this time, the source is in compliance with both of these permit conditions.

V. GENERAL NOTES During the inspection, no fugitive coal dust was observed form any of the faci lity operations. The K-Factor System is performing adequately. The source's record keeping system ha s improved since the last inspection one year ago. The pressure gauge on the SS3 baghouse is in need of repair. The source is not in compliance with the permit at this time and was issued an RCA for the malfunct ioning pressure gauge and given thirty days to respond in writing to DEQ.

INSPECTOR'S SIGNATURE DATE: July 12, 1999 SUPERVISOR'S COMMENTS:

SUPERVISOR'S SIGNATURE DATE: