

Dominion Terminal Associates

Hand Delivered

P.O. Box 967 A
Newport News, VA 23507
(757) 245-2275

DRAFT



March 25, 2004

Virginia Department of Environmental Quality
5636 Southern Boulevard
Virginia Beach, VA 23462

Attention: Mr. Daniel B. Gaidos

Dear Mr. Gaidos,



Dominion Terminal Associates (DTA) in collaboration with our consultant, Simpson Weather Associates (SWA), is providing for your review and comment a draft of a permit application for adding vessel unloading to our STATIONARY SOURCE PERMIT. Included are the DEQ application forms and supporting spreadsheet information. We have also included with the application three drawings showing the schematic arrangement of the equipment and material transfers. In this cover letter we briefly describe the approach taken and its rationale.

Need for a permit revision

Dominion Terminal Associates has determined that the market for coal has made it important to our continued success in the coal industry that we prepare to unload coal from vessels as well as from rail cars. To do so will require the installation of ship unloading equipment at the pier. The new equipment will include:

- Two grab unloaders using state of the art, environmentally friendly technology
- Two negative pressure hoppers (w/ baghouses) to receive the coal from the grabs
- Up to five additional conveyer belts to move coal from the ships to the storage area.

No request for additional annual throughput is being made. The coal brought in by rail plus that brought in by vessel will not exceed the current permitted limit of 24,000,000 tons.

No request is being made for increasing the allowable annual average ground storage from the current limit of 975,000 tons. The rationale articulated in the 1989 permit application for expansion from 68 to 101 acres still applies:

- Better pile management through greater flexibility in locating shipments for transfer
- Lower height of piles through more acreage and better access

- Reduced bulldozer traffic through better access to piles by the stacker/reclaimers.

Permit modifications requested

In 2002, DTA was issued a modified permit to build a synfuel plant to process 12,264,000 tons per year. Reconsideration of the market for synfuel has led DTA to revise its needs downward to 5,000,000 tons per year. DTA wishes to use this permit application to have this limit lowered, in part, to offset the expected increase in allowable emissions from the coal import activities. In fact, the vessel unloading is computed (AP-42) to produce ~10tons PM/year while the reduced synfuel activity is computed to remove 13 tons PM/year. Additionally, as we have not yet begun construction of the Synfuel facility (contracts have yet to be finalized with Synfuel plant owners), we would request an extension on our allowed time frame to begin construction.

As mentioned above, this application for a permit modification is primarily driven by the need to have vessel unloading capabilities. State of the art equipment is planned to minimize fugitive dust emissions within allowable limits. Panels lowered under the path of the grab-hopper route will eliminate any coal being dropped into the river.

We would also like to point out at this time that the schematics provided, and the equipment and transfers shown and listed are approximations based upon preliminary engineering activity. Some modifications may be made, but we anticipate that the information provided shows maximums.

There are several substantive changes in this permit application compared to that prepared for the 2002 modification. Prior to the 2002 permit modification for synfuel operations, the PM limit was 60.8 tons/year. Given that the AP-42 computation of increased emissions from the synfuel activity was < 10 tons/year, the revised permit limit of 112.7 tons appeared to be higher than would have been estimated. A review of the supporting documentation that was provided along with the permit application indicated that a value of 90.27 tons/year was introduced as the estimated pile emissions based upon the K-factor program appended to the permit. However, that number comes from a spreadsheet program (different than the K-factor logic required by permit) developed by DEQ to estimate annual emissions from the facility. The value, 90.27, is an empirical calibration factor and is not to be used as “a maximum” value for controlled emissions. It is independent of facility size, annual storage or weather. That same end-of-year program also was designed and calibrated when the DTA facility was 68 acres large and applied to all fugitive emissions, not just piles. Thus the use of the 90.27 value was doubly without merit. This current permit application reverts back to the computational approach used in the successful 1989 permit application for expansion where pile emissions were computed according to the approach outlined in AP-42.

A second substantial change in this permit modification application relates to the use of 99% control efficiency for all transfer points and processing activities in the 2002 permit application. In our current application we assign control efficiencies that are consistent with the published “EPA Accepted Control Device Efficiencies“. While this increases the estimates of emissions at most of the points of coal handling, the net result is a lower annual limit for PM emissions from the terminal than is currently permitted since the 90.27 is not employed as the estimate of pile emissions only.

While DEQ Form 7 is used in this permit application, we have provided much of the required information in the form of a Microsoft Excel spreadsheet. A CD with the data is included to allow DEQ staff to manipulate the data as they see fit during their review of the application.

The net result of the recompilation of maximum controlled PM and PM10 emissions is a major reduction in the permit limits down from 112.7 tons/year to 65.7 tons/year. We would request that you advise us of the implications of this reduction below the 100Ton/year value that triggers PSD and Title V actions. This is especially true for the PM-10 amounts which are down from 21.9 to 11.83 tons/year. In fact these values include fugitive emissions which may or may not be used depending upon source classification.

End of year estimates of facility emissions

All past and current permits for DTA have not included a method for estimating total annual emissions (in tons). However, for the past 10 years or more, DTA has used a DEQ spreadsheet tool for estimating those emissions. SWA has expressed reservations about its use since the tool has some shortcomings:

- The tool was developed using a few (< 10) TSP monitor results during the late 80's. It was intended to estimate total emissions from the coal storage facility based upon empirically adjusted relationships between average tonnage on the ground in 45 one-acre piles, annual weather related "stress" as measured by the K-factor and the efficiency of the facility in adhering to the K-factor system's call for spray cycles.
- The tool was never re-calibrated for expansion in 1989 from 68 to 101 acres and thus would exaggerate the required height of the piles if more than 975,000 tons were to be stored (current permit allows 1,400,000 tons).
- The tool was also not recalibrated for synfuel operations. It would be very difficult to recalibrate, since you need uncontrolled emissions for an extended period as was the case during a portion of the 1980's study period due to inoperative equipment.
- The tool does not consider annual throughput (e.g. it estimates the same emissions for 1,000,000 tons/year as for 24,000,000 tons/year.)

During this permit modification process, we recommend retiring the DEQ spreadsheet for estimating annual emissions and replacing it with an estimator that is based directly upon the permit methodology of emission calculations. The proposed total annual emissions (TAE) estimator has three terms:

- *Term 1* scales to the annual throughput (TP in mega tons) and thus is related specifically to the emissions during unloading, processing, stackout, reclaiming and loading.
- *Term 2* scales to the annual average amount of coal being stored on the ground (GS in mega tons) and thus relates to pile size/height.

- *Term 3* expresses the degree to which the terminal has been faithful in adherence (Eff_r) to the K-factor requests for water spray cycles.

The suggested estimator for annual PM emissions (tons) is:

$$TAE (PM) = \{(TP/24)*56.5 + (GS/.975)*9.2\} * (Eff_r/Eff)$$

$$TAE (PM_{10}) = .18 * TAE (PM)$$

The numerical values come from the AP-42 process summarized in the application material. The Eff values are obtained as follows:

- Eff_r is computed from 8 years of hourly weather data obtained from the DTA tower by simulating the K-factor system and the subsequent computation of control efficiency based upon DEQ logic used in the K-factor algorithm. Thus, we have derived an upper limit for computed efficiency should the terminal follow the K-factor demands faithfully. That value based upon data from 1996-2003 is 83.04%.
- Eff is computed daily by the K-factor software and is averaged for the year. Over the past few years that value has been around the mid to high 70's. The reason for being less than the 83% appears to be operational problems during extended freeze periods.

One aspect of this approach is less than rigorous in that the (Eff_r/Eff) term is applied to both the GS activities and the TP activities. In actuality, the cannons do not affect the dust control at the ship loader (for example). However, SWA suggests that the Eff term be used to indicate the level of attention and performance, in general, at the DTA facility. This assumption does act to increase the TAE over that which would result from applying the multiplier to just the GS terms, but we suggest a preference for the overstatement rather than a possible understatement.

For example, the TAE (PM) for 2003 would have been:

$$\{5.175/24*56.5 + .320/.975*9.2\} * 83.04/66.2 = 19.1 \text{ tons}$$

Summary

1. Current permit is for:
 - a. 24,000,000 tons/year throughput
 - b. 12,264,000 tons/year processing of raw coal into synfuel
 - c. 1,400,000 tons maximum ground storage on 101 acres.
2. DTA wishes to have an Air Permit to Operate with the following:
 - a. 24,000,000 tons/year throughput of all coal products
 - b. 5,000,000 tons/year processing of raw coal into synfuel
 - c. 10,000,000 tons/year maximum unloading of raw coal from vessels (remainder would be from rail cars)
 - d. 975,000 tons maximum average ground storage on the 101 acres.

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3. DTA has computed the new controlled emissions limit for PM to be 65.7 tons/year and for PM-10, 11.8 tons/year.
4. DTA is recommending the retirement of the current DEQ end-of-year spreadsheet for estimating annual emissions. In its place, DTA offers an algorithm that is traceable to the methodology used during permitting to estimate total emissions.

G. D. Emmitt

Senior Scientist

Simpson Weather Associates, Inc.

Charlottesville, Va. 22902

D. R. Wagoner

Superintendent Engineering/Maintenance

Dominion Terminal Associates

Newport News, VA 23607

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY - AIR PERMITS

LOCAL GOVERNING BODY CERTIFICATION FORM	
Facility Name: Dominion Terminal Associates	Registration Number: 60997
Applicant's Name: Dominion Terminal Associates	Name of Contact Person at the site: Dan Wagoner
Applicant's Mailing address: P.O. Box 967-A Newport News, VA 23607	Contact Person Telephone Number: 757-245-2275 ext 305
Facility location (also attach map): Pier 11, Harbor Road, Newport News, VA 23607	
Facility type, and list of activities to be conducted: Coal, coke and significant handling, storage and barge loading facility modified to include barge unloading equipment	
<p>The applicant is in the process of completing an application for an air pollution control permit from the Virginia Department of Environmental Quality. In accordance with § 10.1-1321.1, Title 10.1, Code of Virginia (1950), as amended, before such a permit application can be considered complete, the applicant must obtain a certification from the governing body of the county, city or town in which the facility is to be located that the location and operation of the facility are consistent with all applicable ordinances adopted pursuant to Chapter 22 (§§ 15.2-2200 <u>et seq.</u>) of Title 15.2. The undersigned requests that an authorized representative of the local governing body sign the certification below.</p>	
Applicant's signature:	Date:
<p>The undersigned local government representative certifies to the consistency of the proposed location and operation of the facility described above with all applicable local ordinances adopted pursuant to Chapter 22 (§§15.2-2200 <u>et seq.</u>) of Title 15.2. of the Code of Virginia (1950) as amended, as follows:</p> <p>(Check one block)</p> <p><input type="checkbox"/> The proposed facility is fully consistent with all applicable local ordinances.</p> <p><input type="checkbox"/> The proposed facility is inconsistent with applicable local ordinances; see attached information.</p>	
Signature of authorized local government representative:	Date:
Type or print name:	Title:
County, city or town:	

[THE LOCAL GOVERNMENT REPRESENTATIVE SHOULD FORWARD THE SIGNED CERTIFICATION TO THE APPROPRIATE DEQ REGIONAL OFFICE AND SEND A COPY TO THE APPLICANT.]

LOCAL GOVERNING BODY CERTIFICATION FORM

Effective July 1, 1993, Section 10.1-1321.1 of the Code of Virginia specifies that:

"A. No application for a permit for a new or major modified stationary air pollution source shall be considered complete unless the applicant has provided the Director with notification from the governing body of the county, city, or town in which the source is to be located that the location and operation of the source are consistent with all ordinances adopted pursuant to Chapter 22 (/// 15.2-2200 et seq.) of Title 15.2."

"B. The governing body shall inform in writing the applicant and the Department of the source's compliance or noncompliance not more than 45 days from receipt by the chief executive officer, or his agent, of a request from the applicant."

"C. Should the governing body fail to provide written notification as specified in subsection B of this section, the requirement for such notification as specified in subsection A of this section is waived."

Definitions:

- Any new site (not previously designated as a stationary source) upon which one or more emissions units undergo initial construction, installation, or relocation shall be considered a **New Source**; a "green field" source.
- Any existing stationary source making changes to emission units (construction, installation, modification, reconstruction, or relocation) shall be considered a **Modified Source**. Modified sources need only use this form if the modification is major.
- Any stationary source that emits, or has the potential to emit, 100 tons or more per year of any regulated air pollutant shall be considered a **"Major Source"**. "Regulated air pollutant" is defined in 9 VAC 5-80-1110 C.
- Any modified source, the modification of which is equivalent to the definition of a "major source", shall be considered a **Major Modified Source**.
- Any "major source", the modification of which results in a "significant" net emissions increase of any regulated pollutant, shall be considered a **Major Modified Source**.
- Emissions levels that are considered **Significant** for stationary sources located in Prevention of Significant Deterioration Areas are listed in the definition of "significant" in 9 VAC 5-80-1710 C. Emission levels that are considered "significant" for stationary sources located in Non-attainment Areas are listed in the definition of "significant" in 9 VAC 5-80-2010 C.

If required, the attached form should be submitted for all applications to the appropriate officials of the county, city, or town in which your facility is to be located. (The form is not required for Operating Permits insofar as these pertain to previously existing and operating sources.)

1. Applicant: Fill out the top section of the form and sign in the center block. Send the partially completed notification form to the local governing body by certified mail/return receipt, and keep a copy of the return receipt. A copy of the return receipt should then be submitted with the application to the appropriate DEQ regional office.

2. Local officials: You may use either this form or a certification designed by the locality. If you use this form, please fill out the bottom section of the form. The form asks you to certify that the facility is or will be consistent with all applicable local ordinances. Please check the appropriate box, sign the form and if there is inconsistency, please attach an explanation that indicates the corrective measures being taken. Then forward the form (or the certification designed by the locality) to the appropriate DEQ regional office within 45 days following receipt of the request from the applicant. (A postmark date within 45 days of receipt is sufficient.) Send a copy of the completed form to the applicant.

There are two ways for an applicant for a new or major modified stationary air pollution source permit to comply with this requirement. (1) When a completed form is received by DEQ indicating that locality certifies that the location and operation of the proposed source are in compliance with local ordinances, then this requirement is met. (2) If the locality fails to respond in writing to the request within 45 days of receipt, then this requirement is met when the applicant provides DEQ with evidence that the locality has received the form and has failed to respond in writing within the 45-day period.

COMMONWEALTH OF VIRGINIA
Department of Environmental Quality



General information

CHECK ALL FORMS THAT APPLY AND LIST ALL ATTACHED DOCUMENTS.

- MAP AND LOCALITIES LIST (information), Pages iii-vi
CONFIDENTIAL INFORMATION, Page vii-viii
FORMULA-BASED HAZARDOUS AIR POLLUTANT INFORMATION, Page ix
HAZARDOUS AIR POLLUTANT LIST (information), Pages xi-xii
___ REQUEST FOR LOCAL GOVERNMENT CERTIFICATION FORM, Page xiii
x___ CONTENTS AND DOCUMENT CERTIFICATION, Page 1
x___ GENERAL INFORMATION, Page 2
x___ GENERAL INFORMATION (continued), Page 3
___ FUEL-BURNING EQUIPMENT, Page 4
x___ PROCESSING, Page 5
___ INKS, COATINGS, STAINS, AND ADHESIVES, Page 6
___ INCINERATORS, Page 7
___ VOLATILE ORGANIC COMPOUND/PETROLEUM STORAGE TANKS, Page 8
___ VOLATILE ORGANIC COMPOUND/PETROLEUM STORAGE TANKS -
CONTINUED, Page 9
___ LOADING RACKS AND OIL-WATER SEPARATORS, Page 10
x___ STACK PARAMETERS AND FUEL DATA, Page 11
x___ AIR POLLUTION CONTROL AND MONITORING EQUIPMENT, PAGE 12
x___ AIR POLLUTION CONTROL/SUPPLEMENTAL INFORMATION, PAGE 13
x___ PROPOSED MAXIMUM CRITERIA POLLUTANT EMISSIONS, Page 14

- ___ PAST ACTUAL ANNUAL CRITERIA POLLUTANT EMISSIONS, Page 15
___ TOXIC OR HAP EMISSIONS, Page 16
___ OTHER REGULATED EMISSIONS, Page 17
___ OPERATING PERIODS, Page 18

LIST ATTACHED DOCUMENTS

- x___ MAP of SITE LOCATION
x___ FACILITY SITE PLAN
x___ PROCESS FLOW DIAGRAM/SCHEMATIC
x___ MSDS or CPDS SHEETS
x___ ESTIMATED EMISSIONS CALCULATIONS
___ STACK TESTS
___ AIR MODEL DATA

Note added form sheets above; also indicate the number of copies of each form in blank provided.

DOCUMENT CERTIFICATION FORM
(see other side for instructions)

I certify under penalty of law that this document and all attachments [as noted above] were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering and evaluating the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

I certify that I understand that the existence of a permit under [Article 6 of the Regulations] does not shield the source from potential enforcement of any regulation of the board governing the major NSR program and does not relieve the source of the responsibility to comply with any applicable provision of the major NSR regulations.

SIGNATURE: _____

DATE: _____

NAME: _____

TITLE: _____

REGISTRATION

COMPANY: _____

NUMBER: _____

References: Virginia Regulations for the Control and Abatement of Air Pollution (Regulations), 9 VAC 5-20-230B and 9 VAC 5-80-1140E. See reverse of this form for instructions.

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF ENVIRONMENTAL QUALITY

DOCUMENT CERTIFICATION FORM

INSTRUCTIONS FOR USE

Various provisions of the Regulations for the Control and Abatement of Air Pollution require that certain documents submitted to the Board or the Department be signed by a responsible official with certification that the information contained in the statement is accurate to the best knowledge of the individual certifying the statement. Documents covered by this requirement include, but are not limited to, permit applications, registrations, emission statements, emission testing and monitoring reports, or compliance certifications. The certification should include the full name, title, signature, date of signature, and telephone number of the responsible official. A responsible official is defined as follows (Regulations, 9 VAC 5-20-230A.):

- a. For a business entity, such as a corporation, association or cooperative, a responsible official is either:
 - (1) The president, secretary, treasurer, or a vice-president of the business entity in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the business entity; or
 - (2) A duly authorized representative of such business entity if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either (i) the facilities employ more than 250 persons or have gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars), or (ii) the authority to sign documents has been assigned or delegated to such representative in accordance with procedures of the business entity.
- b. For a partnership or sole proprietorship, a responsible official is a general partner or the proprietor, respectively.
- c. For a municipality, state, federal, or other public agency, a responsible official is either a principal executive officer or ranking elected official. A principal executive officer of a federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency.

Certification is required with each application submittal, including amendments to an application (i.e. new pages, revisions to existing pages and other amendments to application information).

Reference: Regulations, 9 VAC 5-80-1140D. Letters, phone calls, etc. are considered additional supplementary information to the certified application submittal.

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COMMONWEALTH OF VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR PERMIT APPLICATION GENERAL INFORMATION

PERSON COMPLETING FORM	DATE	REGISTRATION NUMBER
George D. Emmitt, Simpson Weather Associates, Inc.		

REASON(S) FOR SUBMISSION:

<input type="checkbox"/> STATE OPERATING PERMIT	THIS PERMIT IS APPLIED FOR PURSUANT TO PROVISIONS OF THE VIRGINIA ADMINISTRATIVE CODE, 9 VAC 5 Chapter 80, Article 5 (SOP)
<input type="checkbox"/> NEW (Greenfield) SOURCE	THIS PERMIT IS APPLIED FOR PURSUANT TO THE FOLLOWING PROVISION(S) OF THE VIRGINIA ADMINISTRATIVE CODE:
<input checked="" type="checkbox"/> MODIFICATION of a SOURCE	<input checked="" type="checkbox"/> 9 VAC 5 Chapter 80, Art. 6 (MINOR SOURCES)
	<input type="checkbox"/> 9 VAC 5 Chapter 80, Art. 8 (PSD MAJOR SOURCES)
<input type="checkbox"/> RELOCATION of a SOURCE	<input type="checkbox"/> 9 VAC 5 Chapter 80, Art. 9 (NON-ATTAINMENT MAJOR SOURCES)
<input type="checkbox"/> Non-Binding Letter of EXEMPTION	
<input type="checkbox"/> AMENDMENT to a Permit dated: _____ Permit type: <input type="checkbox"/> SOP (Art.5) <input type="checkbox"/> NSR (Art.6)	
Amendment Type:	THIS AMENDMENT IS REQUESTED PURSUANT TO THE PROVISIONS OF:
<input type="checkbox"/> Administrative Amendment	<input type="checkbox"/> 9 VAC 5-80-970 (SOP Adm.) <input type="checkbox"/> 9 VAC 5-80-1270 (NSR Adm.)
<input type="checkbox"/> Minor Amendment	<input type="checkbox"/> 9 VAC 5-80-980 (SOP Minor) <input type="checkbox"/> 9 VAC 5-80-1280 (NSR Minor)
<input type="checkbox"/> Significant Amendment	<input type="checkbox"/> 9 VAC 5-80-990 (SOP Sig.) <input type="checkbox"/> 9 VAC 5-80-1290 (NSR. Sig.)
<i>Complete Pages 1, 2, and 3 and refer to the above checked provisions for additional information requirements. Form 7 pages may be used to satisfy those requirements.</i>	
<input type="checkbox"/> REGISTRATION/REGISTRATION UPDATE	
<input type="checkbox"/> NOTIFICATION OF OWNERSHIP OR NAME CHANGE - EFFECTIVE DATE: _____ (Complete Pages 1, 2 and 3 ONLY)	
<input type="checkbox"/> OTHER (SPECIFY): _____	

COMPANY AND DIVISION NAME: Dominion Terminal Associates		
MAILING ADDRESS: P.O. Box 967-A, Newport News, VA 23607		
TELEPHONE NUMBER: 757-245-2275	NUMBER OF EMPLOYEES AT SITE:	PROPERTY AREA AT SITE:
EXACT SOURCE LOCATION - INCLUDE NAME OF CITY (COUNTY) AND FULL STREET ADDRESS OR DIRECTIONS: Pier 11, Harbor Road, Newport News, VA 23607		
PERSON TO CONTACT ON AIR POLLUTION MATTERS - NAME AND TITLE: Dan Wagoner Superintendent Engineering/Maintenance		PHONE NUMBER: 757-245-2275 ext. 305
		FAX NUMBER: 757-247-9729
		E-MAIL ADDRESS: dwagoner@dominionterminal.com
<input type="checkbox"/> Please check here if you obtained this form from the DEQ website.		
FOR OFFICIAL USE ONLY		
COUNTY CODE:	PLANT ID NUMBER:	LAT/LONG:

GENERAL INFORMATION INSTRUCTIONS

REASON FOR SUBMISSION - check the appropriate box(es) and the applicable regulation(s).

1. "STATE OPERATING PERMIT" means that you are either an existing source applying for an operating permit, or are a NEW (Greenfield) SOURCE applying for a State Operating Permit concurrently with a permit to construct and operate the NEW (Greenfield) SOURCE. State Operating Permits are normally optional, and are requested for one of the reasons stated in 9 VAC 5-80-800 C.
2. "NEW (Greenfield) SOURCE" means that you are either constructing emission units at a new facility where no facility now exists, or you are constructing emission units at a facility that previously had no emission units at the facility. The NEW (Greenfield) SOURCE is (or may be) subject to permit review requirements.
3. "MODIFICATION of a SOURCE" means that (1) you already have emission units at your facility, (2) you are making physical or operational changes to the facility, (3) those proposed changes could result in a net emission increase of a regulated pollutant (or the emission of a regulated pollutant not presently being emitted), and (4) that physical or operational change is (or may be) subject to permit review requirements.
4. "RELOCATION of a SOURCE" means that you are relocating emission units from a facility in one location to a new or existing facility in another location, and that relocation is (or may be) subject to permit review.
5. "Non-Binding Letter of EXEMPTION" means that you are applying for written confirmation that a particular change is not subject to permit review under 9 VAC 5, Chapter 80, Articles 6, 8, or 9.
6. "PERMIT AMENDMENT" means that you have an effective air permit for your source, and you need changes made to that permit that do not qualify as a "MODIFICATION of a SOURCE".
7. "REGISTRATION/REGISTRATION UPDATE" means that you are applying to register a source that is not otherwise subject to permit review under 9 VAC 5, Chapter 80, Articles 6, 8 or 9, or you are applying to update a previous registration. See 9 VAC 5-20-160 of the regulations.
8. "NOTIFICATION of OWNERSHIP OR NAME CHANGE" means that you simply notifying DEQ of the changes as required by regulation. Requests to update a permit for the change shall be made as a "PERMIT AMENDMENT" request instead of a NOTIFICATION. Include the effective date of the change in your request.
9. "OTHER (SPECIFY)" means you intend to make a change to your facility, you do not know what air permitting requirements apply, and you wish for DEQ to evaluate the change for you and determine which requirements apply. Fill out the Form 7 as completely as possible and describe in a letter what you wish to do.

The listed regulations detail the various types of air pollution permits. Please indicate which of these you believe are applicable to this application. (More than one may apply). Sections of the regulations may be downloaded from the DEQ web site at <http://www.deq.state.va.us/>. Copies of the regulations are available for purchase from the WestGroup by calling 1-800-328-4880 (Air regulations are contained in Volume 6, Title 9 of the Virginia Administrative Code).

COMPANY AND DIVISION NAME - list the official company name and the division if applicable.

MAILING ADDRESS - list the mailing address that corresponds to the facility on this application.

TELEPHONE NUMBER - list the phone number at the facility.

NUMBER OF EMPLOYEES AT SITE - list the number of employees at the facility.

PROPERTY AREA AT SITE - list the area in acres.

EXACT SOURCE LOCATION - provide a description of the facility location indicating street address or directions to facility; provide a map pinpointing the exact source location and specify where the plant property boundaries are, if requested by the regional office; provide a plant layout with dimensions of all buildings (height, length, width) at the facility indicating all stack and emission point locations by stack or reference number, if requested.

PERSON TO CONTACT ON AIR POLLUTION MATTERS - provide the name/title of a contact person for air pollution matters.

PHONE NUMBER - provide a phone number at which DEQ staff can reach the contact person.

FAX PHONE NUMBER - provide the fax number of the contact person, if there is one.

MAIL ADDRESS - provide an E-mail address of the contact person, if you wish to communicate with DEQ by e-mail.

FOR OFFICIAL USE ONLY - provided for use by the DEQ regional office.

COMMONWEALTH OF VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR PERMIT APPLICATION GENERAL INFORMATION (continued)

COMPANY NAME	DATE	REGISTRATION NUMBER
Dominion Terminal Associates		60997

FOR PORTABLE PLANTS:

IS THIS FACILITY DESIGNED TO BE PORTABLE?	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	
- IF YES, IS THIS FACILITY ALREADY PERMITTED AS A PORTABLE PLANT?	<input type="checkbox"/> YES	<input type="checkbox"/> NO	PERMIT DATE: _____
IF NOT PERMITTED, IS THIS AN APPLICATION TO BE PERMITTED AS A PORTABLE PLANT?	<input type="checkbox"/> YES	<input type="checkbox"/> NO	
IF PERMITTED AS A PORTABLE FACILITY, IS THIS A NOTIFICATION OF RELOCATION?	<input type="checkbox"/> YES	<input type="checkbox"/> NO	
- DESCRIBE THE NEW LOCATION OR ADDRESS (INCLUDE A SITE MAP): _____			
- WILL THE PORTABLE FACILITY BE CO-LOCATED WITH ANOTHER SOURCE? <input type="checkbox"/> YES <input type="checkbox"/> NO			
REG. NO.: _____			
- WILL THE PORTABLE FACILITY BE MODIFIED OR RECONSTRUCTED AS A RESULT OF THE RELOCATION?	<input type="checkbox"/> YES	<input type="checkbox"/> NO	
- WILL THERE BE ANY NEW EMISSIONS OTHER THAN THOSE ASSOCIATED WITH THE RELOCATION?	<input type="checkbox"/> YES	<input type="checkbox"/> NO	
- IS THE FACILITY SUITABLE FOR THE AREA TO WHICH IT WILL BE LOCATED? (ATTACH DOCUMENTATION.)	<input type="checkbox"/> YES	<input type="checkbox"/> NO	

DESCRIBE THE PRODUCTS MANUFACTURED AND/OR SERVICES PERFORMED AT THIS FACILITY:

Coal, coke, and significant handling, storage and vessel loading facility modified to include vessel unloading equipment

LIST THE STANDARD INDUSTRIAL CLASSIFICATION (SIC) CODE(S) FOR THE FACILITY:

4	4	9	1												
PRIMARY SIC				SECONDARY SICs											

PLEASE LIST ALL THE FACILITIES IN VIRGINIA UNDER COMMON OWNERSHIP OR CONTROL BY THE OWNER OF THIS FACILITY:

MILESTONES: This section is to be completed if the permit application includes a new emissions unit or modification to existing operations.

MILESTONES*	STARTING DATE	ESTIMATED COMPLETION DATE
New equipment installation	90 – 120 days post-Approval	Approx. 9 – 12 months thereafter
Modification of existing process or equipment		
Start-up dates	April, 2006	June, 2006

*For new or modified installations to be constructed in phased schedule, give construction/installation starting and completion date for each phase.

GENERAL INFORMATION (continued) INSTRUCTIONS

COMPANY NAME - give the company name, the date completed, and the registration number assigned to the facility if applicable.

IS THE FACILITY DESIGNED TO BE PORTABLE? - 9 VAC 5-80-1110 B defines "portable", to mean an emissions unit that is designed to have the capability of being moved from one location to another for the purpose of operating at multiple locations and storage when idle. Indications of portability include, but are not limited to, wheels, skids, carrying handles, dolly, trailer, or platform. If this facility is already permitted as a portable facility, list the date of the effective permit.

IS THIS AN APPLICATION TO BE PERMITTED AS A PORTABLE PLANT? - if the facility is designed to be portable, indicate whether or not you wish to have the permit contain specific conditions that will acknowledge this fact, so that the facility may be relocated without a new permit in accordance with 9 VAC 5-80-1320 A.1.c.

IS THIS A NOTIFICATION OF RELOCATION OF A PORTABLE FACILITY? - 9 VAC 5-80-1320 A.1.c allows the relocation of a properly permitted portable facility to be exempt from permitting requirements, as long as it meets certain requirements, one of which is timely notification of the relocation. This notification should be sent to the Director of the DEQ Regional Office into whose area of responsibility the facility will be relocated. The 15-day notification period begins when DEQ receives the notification. Submission of pages 1, 2, and 3 of this form 7 may be used for that notification (with "RELOCATION of a SOURCE" marked on Page 2). However, use of this form for that purpose is not required. Note that a site map and documentation of site suitability should accompany this form or whatever means of notification is used. Include the registration number of any stationary source that will be co-located with the portable facility at the new site.

Site suitability may be documented by the use of a properly certified Local Governing Body Certification Form from the locality to which the facility will be relocated, although that form is not required for this purpose. Contact the appropriate DEQ Regional Office for instructions. DEQ will make a determination of site suitability based upon regional and local requirements.

PRODUCTS MANUFACTURED/SERVICED - indicate the type of business in which this facility is engaged, listing products produced and/or services performed.

SIC CODE(S) - provide all 4-digit Standard Industrial Classification Code(s) for this facility and for the process(es). Place primary SIC in the first set of blocks.

FACILITIES UNDER COMMON OWNERSHIP - list the facilities in Virginia that are owned by the applicant company, its subsidiaries, and its parent company.

MILESTONE DATES - list all dates pertinent to this application as accurately as possible. For start-up dates, provide each relevant date as it might affect emissions, e.g., start-up of each unit, modification of each unit, imposition of or changes in permitted emissions for each unit.

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PROCESS: 3, MANUFACTURING, SURFACE COATING AND DEGREASING OPERATIONS:

COMPANY NAME Dominion Terminal Associates			DATE	REGISTRATION NUMBER: 60997
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UNIT REF. NO.	M O D C O D E	PROCESS OR OPERATION NAME	EQUIPMENT MANUFACTURER, TYPE AND MODEL NUMBER	DATE OF MFR. OR CONST.	MAXIMUM RATED CAPACITY _____/HR**	MAXIMUM EXPECTED FEED INPUT**		
						MAXIMUM EXPECTED FEED OUTPUT**		
						_____/HR	_____/DAY	_____/YEAR
CR-1	0	Crusher	Fully-enclosed double-roll crusher		1000	700	6,850	2,500,000
CR-2	0	Crusher	Fully-enclosed double-roll crusher		1000	700	6,850	2,500,000
SS-1	0	Screen	Fully-enclosed double deck screen		700	700	6,850	2,500,000
SS-2	0	Screen	Fully-enclosed single deck screen		700	700	6,850	2,500,000
SS-3	0	Screen	Fully-enclosed double deck screen		700	700	6,850	2,500,000
SS-4	0	Screen	Fully-enclosed single deck screen		700	700	6,850	2,500,000

* Include flow diagram (process schematic) relating process steps and a narrative description including feed materials, product materials, reaction intermediates and by-products; attach appropriate MSDS or CPDS for raw materials used or consumed and products manufactured or handled. For modification codes see next page.

** Specify units for each operation in Tons, Pounds, Gallons, etc., as applicable. Maximum Expected Feed Input for state operating permits shall be based on historical high or attach justification.

PROCESS: POLYMER MANUFACTURING, SURFACE COATING AND DEGREASING OPERATIONS:

COMPANY NAME Dominion Terminal Associates		DATE	REGISTRATION NUMBER: 60997
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UNIT REF. NO.	M O D E L C O D E	PROCESS OR OPERATION NAME	EQUIPMENT MANUFACTURER, TYPE AND MODEL NUMBER	DATE OF MFR. OR CONST.	MAXIMUM RATED CAPACITY _____/HR**	MAXIMUM EXPECTED FEED INPUT**		
						MAXIMUM EXPECTED FEED OUTPUT**		
						_____/HR	_____/DAY	_____/YEAR
OS-1	0	Open Stockpile #1	Material Storage		350,000 tons			24,000,000
OS-2	0	Open Stockpile #2	Material Storage		350,000 tons			24,000,000
OS-3	0	Open Stockpile #3	Material Storage		350,000 tons			24,000,000
OS-4	0	Open Stockpile #4	Material Storage		350,000 tons			24,000,000
OS-5	0	Open Stockpile #5	Material Storage		40,000 tons			5,000,000
OS-6	0	Open Stockpile #6	Material Storage		50 tons			2,000
OS-7	0	Open Stockpile #7	Material Storage		20,000 tons			5,000,000

* Include flow diagram (process schematic) relating process steps and a narrative description including feed materials, product materials, reaction intermediates and by-products; attach appropriate MSDS or CPDS for raw materials used or consumed and products manufactured or handled. For modification codes see next page.

** Specify units for each operation in Tons, Pounds, Gallons, etc., as applicable. Maximum Expected Feed Input for state operating permits shall be based on historical high or attach justification.

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PROCESS: 3, MANUFACTURING, SURFACE COATING AND DEGREASING OPERATIONS:

COMPANY NAME Dominion Terminal Associates			DATE	REGISTRATION NUMBER: 60997
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UNIT REF. NO.	M O D E C O D E	PROCESS OR OPERATION NAME	EQUIPMENT MANUFACTURER, TYPE AND MODEL NUMBER	DATE OF MFR. OR CONST.	MAXIMUM RATED CAPACITY ____/HR**	MAXIMUM EXPECTED FEED INPUT**		
						MAXIMUM EXPECTED FEED OUTPUT**		
						____/HR	____/DAY	____/YEAR
BS-1	0	Storage Silo #1	Fully-enclosed w/baghouse		1,000 tons			
						2,740	65,753	24,000,000
BS-2	0	Storage Silo #2	Fully-enclosed w/baghouse		3,800 tons			
						2,740	65,753	24,000,000
BS-3	0	Storage Silo #3	Fully-enclosed w/baghouse		4,100 tons			
						2,740	65,753	24,000,000
BS-4	0	Plant #1 -- Feed Bin	Fully-enclosed with water/chemical solution		50 tons			
						700	6,850	2,500,000
BS-5	0	Plant #1 – Pugmill Bin	Fully-enclosed in building		5 tons			
						700	6,850	2,500,000
BS-6	0	Plant #2 – Pugmill Feed Bin	Fully-enclosed in building		5 tons			
						700	6,850	2,500,000
BS-7	0	Plant #2 – Feed Bin	Full-enclosed with water/chemical solution		50 tons			
						700	6,850	2,500,000
BS-8	0	Plant #2 – Pugmill Bin	Fully-enclosed in building		5 tons			
						700	6,850	2,500,000
BS-9	0	Plant #2 – Pugmill Feed Bin	Fully-enclosed in building		5 tons			
						700	6,850	2,500,000

* Include flow diagram (process schematic) relating process steps and a narrative description including feed materials, product materials, reaction intermediates and by-products; attach appropriate MSDS or CPDS for raw materials used or consumed and products manufactured or handled. For modification codes see next page.

** Specify units for each operation in Tons, Pounds, Gallons, etc., as applicable. Maximum Expected Feed Input for state operating permits shall be based on historical high or attach justification.

DRAFT

PROCESSING, MANUFACTURING, SURFACE COATING AND DEGREASING OPERATIONS:

COMPANY NAME Dominion Terminal Associates		DATE	REGISTRATION NUMBER: 60997
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UNIT REF. NO.	MOD C O D E	PROCESS OR OPERATION NAME	EQUIPMENT MANUFACTURER, TYPE AND MODEL NUMBER	DATE OF MFR. OR CONST.	MAXIMUM RATED CAPACITY _____/HR**	MAXIMUM EXPECTED FEED INPUT**	
						MAXIMUM EXPECTED FEED OUTPUT**	
						_____/HR	_____/DAY _____/YEAR
BC-01	0	Rotary Dump Discharge Belt	Fully-enclosed belt conveyor		6800		
						2,740	65,753 24,000,000
BC-02	0	Silo #1 Feed Belt	Fully-enclosed belt conveyor		6800		
						,740	65,753 24,000,000
BC-03	0	Silo #1 Discharge Belt	Fully-enclosed belt conveyor		6800		
						2,740	65,753 24,000,000
BC-04	0	Stockpile Feed Belt	Belt conveyor (yard)		6800		
						2,740	65,753 24,000,000
BC-05	0	CC/Coke Transfer Belt	Fully-enclosed belt conveyor		6800		
						2,740	65,753 24,000,000
BC-06	0	CC/Coke Transfer Belt	Fully-enclosed belt conveyor		6800		
						2,740	65,753 24,000,000
BC-07	0	*Stockpile Feed Belt	Belt conveyor (yard)		6800		
						2,740	65,753 24,000,000

* Include flow diagram (process schematic) relating process steps and a narrative description including feed materials, product materials, reaction intermediates and by-products; attach appropriate MSDS or CPDS for raw materials used or consumed and products manufactured or handled. For modification codes see next page.
** Specify units for each operation in Tons, Pounds, Gallons, etc., as applicable. Maximum Expected Feed Input for state operating permits shall be based on historical high or attach justification.

DRAFT

PROCESSING, MANUFACTURING, SURFACE COATING AND DEGREASING OPERATIONS:

COMPANY NAME Dominion Terminal Associates		DATE	REGISTRATION NUMBER: 60997
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UNIT REF. NO.	M O D E C O D E	PROCESS OR OPERATION NAME	EQUIPMENT MANUFACTURER, TYPE AND MODEL NUMBER	DATE OF MFR. OR CONST.	MAXIMUM RATED CAPACITY ____/HR**	MAXIMUM EXPECTED FEED INPUT**		
						MAXIMUM EXPECTED FEED OUTPUT**		
						____/HR	____/DAY	____/YEAR
BC-08	0	CC/Coke Transfer Belt	Fully-enclosed belt conveyor		6800			
						2,740	65,753	24,000,000
BC-09	0	CC/Coke Transfer Belt	Fully-enclosed belt conveyor		6800			
						2,740	65,753	24,000,000
BC-10	0	Loadout Belt	Fully-enclosed belt conveyor		6800			
						2,740	65,753	24,000,000
BC-11	0	Silo Transfer Belt	Bully-enclosed belt conveyor		6800			
						2,740	65,753	24,000,000
BC-12	0	Silo Transfer Belt	Fully-enclosed belt conveyor		6800			
						2,740	65,753	24,000,000
BC-13	0	Stockpile Belt	Belt conveyor (yard)		6800			
						2,740	65,753	24,000,000

* Include flow diagram (process schematic) relating process steps and a narrative description including feed materials, product materials, reaction intermediates and by-products; attach appropriate MSDS or CPDS for raw materials used or consumed and products manufactured or handled. For modification codes see next page.

** Specify units for each operation in Tons, Pounds, Gallons, etc., as applicable. Maximum Expected Feed Input for state operating permits shall be based on historical high or attach justification.

DRAFT

PROCESSING, MANUFACTURING, SURFACE COATING AND DEGREASING OPERATIONS:

COMPANY NAME Dominion Terminal Associates		DATE	REGISTRATION NUMBER: 60997
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UNIT REF. NO.	MOD C O D E	PROCESS OR OPERATION NAME	EQUIPMENT MANUFACTURER, TYPE AND MODEL NUMBER	DATE OF MFR. OR CONST.	MAXIMUM RATED CAPACITY ____/HR**	MAXIMUM EXPECTED FEED INPUT**		
						MAXIMUM EXPECTED FEED OUTPUT**		
						____/HR	____/DAY	____/YEAR
BC-14	0	Clean Coal Stockpile Feed Belt	Fully-enclosed belt conveyor		6800	6800	13,700	5,000,000
BC-15	0	Crusher Feed Belt	Fully-enclosed belt conveyor		1500	1400	13,700	5,000,000
BC-16	0	Screen Oversize Belt	Fully-enclosed belt conveyor		100			
						0.23	5.48	2,000
BC-17	0	Plant Feed Belt	Fully-enclosed belt conveyor		700			
						700	6,850	2,500,000
BC-18	0	Pugmill Bin Feed Belt	Bully-enclosed belt conveyor		700			
						700	6,850	2,500,000
BC19	0	Pugmill Mixer Feed Belt	Fully-enclosed belt conveyor		700			
						700	6,850	2,500,000
BC-20	0	Pug Mixer Discharge Belt	Fully-enclosed belt conveyor		700			
						700	6,850	2,500,000

* Include flow diagram (process schematic) relating process steps and a narrative description including feed materials, product materials, reaction intermediates and by-products; attach appropriate MSDS or CPDS for raw materials used or consumed and products manufactured or handled. For modification codes see next page.

** Specify units for each operation in Tons, Pounds, Gallons, etc., as applicable. Maximum Expected Feed Input for state operating permits shall be based on historical high or attach justification.

DRAFT

PROCESSING, MANUFACTURING, SURFACE COATING AND DEGREASING OPERATIONS:

COMPANY NAME Dominion Terminal Associates			DATE	REGISTRATION NUMBER: 60997
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UNIT REF. NO.	MOD CODE	PROCESS OR OPERATION NAME	EQUIPMENT MANUFACTURER, TYPE AND MODEL NUMBER	DATE OF MFR. OR CONST.	MAXIMUM RATED CAPACITY _____/HR**	MAXIMUM EXPECTED FEED INPUT**	
						MAXIMUM EXPECTED FEED OUTPUT**	
						_____/HR	_____/DAY _____/YEAR
BC-21	0	Spreader Belt	Fully-enclosed belt conveyor		700		
						700	6,850 2,500,000
BC-22	0	Briquetter Discharge Belt	Fully-enclosed belt conveyor		233		
						233	2,282 833,000
BC-23	0	Briquetter Discharge Belt	Fully-enclosed belt conveyor		233		
						233	2,282 833,000
BC-24	0	Briquetter Discharge Belt	Fully-enclosed belt conveyor		233		
						233	2,282 833,000
BC-25	0	Screen SS-2 Feed Belt	Fully-enclosed belt conveyor		700		
						700	6,850 2,500,000
BC-26	0	Recirculating Belt	Fully-enclosed belt conveyor		100		
						0.23	5.48 2,000
BC-27	0	Screen SS-2 Discharge Belt	Fully-enclosed belt conveyor		700		
						700	6,850 2,500,000

* Include flow diagram (process schematic) relating process steps and a narrative description including feed materials, product materials, reaction intermediates and by-products; attach appropriate MSDS or CPDS for raw materials used or consumed and products manufactured or handled. For modification codes see next page.

** Specify units for each operation in Tons, Pounds, Gallons, etc., as applicable. Maximum Expected Feed Input for state operating permits shall be based on historical high or attach justification.

DRAFT

PROCESSING, MANUFACTURING, SURFACE COATING AND DEGREASING OPERATIONS:

COMPANY NAME Dominion Terminal Associates			DATE	REGISTRATION NUMBER: 60997
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UNIT REF. NO.	MOD CODE	PROCESS OR OPERATION NAME	EQUIPMENT MANUFACTURER, TYPE AND MODEL NUMBER	DATE OF MFR. OR CONST.	MAXIMUM RATED CAPACITY _____/HR**	MAXIMUM EXPECTED FEED INPUT**		
						MAXIMUM EXPECTED FEED OUTPUT**		
						_____/HR	_____/DAY	_____/YEAR
BC-28	0	Synfuel Stacking Belt	Fully-enclosed belt conveyor		700			
						700	6,850	2,500,000
BC-29	0	Screen SS-3 Oversize Belt	Fully-enclosed belt conveyor		100			
						.23	5.48	2,000
BC-30	0	Plant Feed Belt	Fully-enclosed belt conveyor		700			
						700	6,850	2,500,000
BC-31	0	Pugmill Bin Feed Belt	Fully-enclosed belt conveyor		700			
						700	6,850	2,500,000
BC-32	0	Pugmill Mixer Feed Belt	Fully-enclosed belt conveyor		700			
						700	6,850	2,500,000
BC-33	0	Pug Mixer Discharge Belt	Fully-enclosed belt conveyor		700			
						700	6,850	2,500,000
BC-34	0	Spreader Belt	Fully-enclosed belt conveyor		700			
						700	6,850	2,500,000

* Include flow diagram (process schematic) relating process steps and a narrative description including feed materials, product materials, reaction intermediates and by-products; attach appropriate MSDS or CPDS for raw materials used or consumed and products manufactured or handled. For modification codes see next page.

** Specify units for each operation in Tons, Pounds, Gallons, etc., as applicable. Maximum Expected Feed Input for state operating permits shall be based on historical high or attach justification.

DRAFT

PROCESSING, MANUFACTURING, SURFACE COATING AND DEGREASING OPERATIONS:

COMPANY NAME Dominion Terminal Associates		DATE	REGISTRATION NUMBER: 60997
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UNIT REF. NO.	MOD CODE	PROCESS OR OPERATION NAME	EQUIPMENT MANUFACTURER, TYPE AND MODEL NUMBER	DATE OF MFR. OR CONST.	MAXIMUM RATED CAPACITY ____/HR**	MAXIMUM EXPECTED FEED INPUT**	
						MAXIMUM EXPECTED FEED OUTPUT**	
						____/HR	____/DAY ____/YEAR
BC-35	0	Briquetter Discharge Belt	Fully-enclosed belt conveyor		233		
						233	2,282 833,000
BC-36	0	Briquetter Discharge Belt	Fully-enclosed belt conveyor		233		
						233	2,282 833,000
BC-37	0	Briquetter Discharge Belt	Fully-enclosed belt conveyor		233		
						233	5,600 833,000
BC-38	0	Screen SS-4 Feed Belt	Fully-enclosed belt conveyor		700		
						700	6,850 2,500,000
BC-39	0	Recirculating Belt	Fully-enclosed belt conveyor		100		
						0.23	5.48 2,000
BC-40	0	Screen SS-4 Discharge Belt	Fully-enclosed belt conveyor		700		
						700	6,850 2,500,000
BC-41	0	Synfuel Stacking Belt	Fully-enclosed belt conveyor		700		
						700	6,850 2,500,000
BC-42	0	Synfuel Product Transfer Belt	Fully-enclosed belt conveyor		1500		
						1,400	13,700 12,264,000
BC-43	0	CC/RC Transfer Belt	Fully-enclosed belt conveyor		6800		
						2,740	65,753 24,000,000

* Include flow diagram (process schematic) relating process steps and a narrative description including feed materials, product materials, reaction intermediates and by-products; attach appropriate MSDS or CPDS for raw materials used or consumed and products manufactured or handled. For modification codes see next page.

** Specify units for each operation in Tons, Pounds, Gallons, etc., as applicable. Maximum Expected Feed Input for state operating permits shall be based on historical high or attach justification.

DRAFT

PROCESSING, MANUFACTURING, SURFACE COATING AND DEGREASING OPERATIONS:

COMPANY NAME Dominion Terminal Associates			DATE	REGISTRATION NUMBER: 60997
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UNIT REF. NO.	MOD C O D E	PROCESS OR OPERATION NAME	EQUIPMENT MANUFACTURER, TYPE AND MODEL NUMBER	DATE OF MFR. OR CONST.	MAXIMUM RATED CAPACITY _____/HR**	MAXIMUM EXPECTED FEED INPUT**	
						MAXIMUM EXPECTED FEED OUTPUT**	
						_____/HR	_____/DAY _____/YEAR
BC-44	0	CC/RC Transfer Belt	Fully-enclosed belt conveyor		6800	2,740	65,753 24,000,000
BC-45	4	BC-48 or BC-49 → BC-46 Transfer Belt	Fully-enclosed belt conveyor		6800	1,142	27,400 10,000,000
BC-46	4	BC-45 to BC-47 or BC-7	Fully-enclosed belt conveyor		6800		
BC-47	4	BC-46 to BC-4	Full-enclosed belt conveyor		6800		
BC-48	4	Hopper to BC-45	Enclosed with baghouse		3400	571	13,700 5,000,000
BC-49	4	Hopper to BC-45	Enclosed with baghouse		3400	571	13,700 5,000,000
UL-1	4	Grab Vessel Unloader	Enclosed		2000		
UL-2	4	Grab Vessel Unloader	Enclosed		2000	571	13,700 5,000,000
BH-1	4	Receiving Hopper	Enclosed with baghouse		3400	571	13,700 5,000,000
BH-2	4	Receiving Hopper	Enclosed with baghouse		3400	571	13,700 5,000,000

* Include flow diagram (process schematic) relating process steps and a narrative description including feed materials, product materials, reaction intermediates and by-products; attach appropriate MSDS or CPDS for raw materials used or consumed and products manufactured or handled. For modification codes see next page.

** Specify units for each operation in Tons, Pounds, Gallons, etc., as applicable. Maximum Expected Feed Input for state operating permits shall be based on historical high or attach justification.

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PROCESS OPERATIONS INSTRUCTIONS

UNIT REF. NO. - assign a unique reference number for each entry.

MODIFICATION CODE - Choose a code and insert:

- 0. - No change.
- 1. - for increase in regulated limit.
- 2. - for physical change in emissions unit.
- 3. - for changes in related equipment.
- 4. - for new emissions unit(s).
- 5. - for replacement emissions unit(s).

PROCESS OR OPERATION NAME - label each emission unit with the applicable process or operation, starting with initial step in the manufacturing process, followed by succeeding logical manufacturing steps until the process is complete.

EQUIPMENT MANUFACTURER, TYPE AND MODEL NUMBER - give the nameplate information or equivalent, one line per emission unit.

DATE OF MFR. OR CONST. - give the date that each emission unit was installed, constructed in place, or manufactured.

MAXIMUM RATED CAPACITY - maximum rated input capacity of the process or operation, in units of measure per hour.

MAXIMUM EXPECTED FEED INPUT AND OUTPUT - provide maximum amount of feed material expected to be processed (hourly, daily, and yearly) and or output as needed. Specify units. If maximum expected feed input is higher than the historical actual emissions, attach justification per 9 VAC 5-80-40.F.4.e of the Regulations. These numbers may be used to establish air permit limits and should be consistent with calculated emissions.

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AIR POLLUTION CONTROL AND MONITORING EQUIPMENT:

COMPANY NAME Dominion Terminal Associates			DATE	REGISTRATION NUMBER: 60997
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UNIT REF. NO.	MOD CODE	VENT/ STACK NO.	DEVICE REF. NO.	POLLUTANT/PARAMETER (See instructions)	AIR POLLUTION CONTROL EQUIPMENT				MONITORING INSTRUMENTATION
					MANUFACTURER AND MODEL NUMBER	TYPE (USE CODE L)	% EFFICIENCY		
							DESIGN	ACTUAL	
OS-1	0	Fugitive	SW-CS	TSP/M-10	Open Stockpile No. 1	099	see note below	see note below	Existing PM-10 Monitor
OS-2	0	Fugitive	SW-CS	TSP/M-10	Open Stockpile No. 2	099	as per above	as per above	Existing PM-10 Monitor
OS-3	0	Fugitive	SW-CS	TSP/PM-10	Open Stockpile No. 3	099	as per above	as per above	Existing PM-10 Monitor
OS-4	0	Fugitive	SW-CS	TSP/PM-10	Open Stockpile No. 4	099	as per above	as per above	Existing PM-10 Monitor
OS-5	0	Fugitive	SW-CS	TSP/PM-10	Open Stockpile No. 5	099	as per above	as per above	Existing PM-10 Monitor
OS-6	0	Fugitive	SW-CS	TSP/PM-10	Open Stockpile No. 6	099	as per above	as per above	Existing PM-10 Monitor
OS-7	0	Fugitive	SW-CS	TSP/PM-10	Open Stockpile No. 7	099	as per above	as per above	Existing PM-10 Monitor

NOTE: See .xls spreadsheet entitled "Air Pollution Control and Calculated Emissions"

AIR POLLUTION CONTROL AND MONITORING EQUIPMENT:

COMPANY NAME Dominion Terminal Associates			DATE	REGISTRATION NUMBER: 60997
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UNIT REF. NO.	MOD CODE	VENT/ STACK NO.	DEVICE REF. NO.	POLLUTANT/PARAMETER (See instructions)	AIR POLLUTION CONTROL EQUIPMENT				MONITORING INSTRUMENTATION
					MANUFACTURER AND MODEL NUMBER	TYPE (USE CODE L)	% EFFICIENCY		
							DESIGN	ACTUAL	SPECIFY TYPE, MEASURED POLLUTANT, AND RECORDER USED
CR-1	0	Source	CS-FC	TSP/M-10 – Opacity	Double Roll Crusher	099	see note below	see note below	Existing PM-10 Monitor and Visual Opacity Evaluation – Method 9
CR-2	0	Source	CS-FC	TSP/M-10 – Opacity	Double Roll Crusher	099	as per above	as per above	Existing PM-10 Monitor and Visual Opacity Evaluation – Method 9
SS-1	0	Source	CS-FC	TSP/PM-10 – Opacity	Double Deck Screen	099	as per above	as per above	Existing PM-10 Monitor and Visual Opacity Evaluation – Method 9
SS-2	0	Source	CS-FC	TSP/PM-10 – Opacity	Single Deck Screen	099	as per above	as per above	Existing PM-10 Monitor and Visual Opacity Evaluation – Method 9
SS-3	0	Source	CS-FC	TSP/PM-10 – Opacity	Double Deck Screen	099	as per above	as per above	Existing PM-10 Monitor and Visual Opacity Evaluation – Method 9
SS-4	0	Source	CS-FC	TSP/PM-10 – Opacity	Single Deck Screen	099	as per above	as per above	Existing PM-10 Monitor and Visual Opacity Evaluation – Method 9

NOTE: See .xls spreadsheet entitled "Air Pollution Control and Calculated Emissions"

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AIR POLLUTION CONTROL AND MONITORING EQUIPMENT:

COMPANY NAME Dominion Terminal Associates			DATE	REGISTRATION NUMBER: 60997
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UNIT REF. NO.	MOD CODE	VENT/ STACK NO.	DEVICE REF. NO.	POLLUTANT/PARAMETER (See instructions)	AIR POLLUTION CONTROL EQUIPMENT				MONITORING INSTRUMENTATION
					MANUFACTURER AND MODEL NUMBER	TYPE (USE CODE L)	% EFFICIENCY		
							DESIGN	ACTUAL	
BS-1	0	Fugitive	SW-FE	TSP/M-10 – Opacity	Storage Silo #1	99/10a	see note below	see note below	SPECIFY TYPE, MEASURED POLLUTANT, AND RECORDER USED
BS-2	0	Fugitive	SW-FE	TSP/M-10 – Opacity	Storage Silo #2	99/10a	as per above	as per above	
BS-3	0	Fugitive	SW-FE	TSP/PM-10 – Opacity	Storage Silo #3	99/10a	as per above	as per above	
BS-4	0	Fugitive	SW-FE	TSP/PM-10 – Opacity	Plant #1 – Feed Bin	99	as per above	as per above	Existing PM-10 Monitor and Visual Opacity Evaluation – Method 9
BS-5	0	Fugitive	SW-FE	TSP/PM-10 – Opacity	Plant #1 – Pugmill Feed Bin	99	as per above	as per above	Existing PM-10 Monitor and Visual Opacity Evaluation – Method 9
BS-6	0	Fugitive	SW-FE	TSP/PM-10 – Opacity	Plant #2 – Pugmill Bin	99	as per above	as per above	Existing PM-10 Monitor and Visual Opacity Evaluation – Method 9
BS-7	0	Fugitive	SW-FE	TSP/PM-10 – Opacity	Plant #2 – Feed Bin	99	as per above	as per above	Existing PM-10 Monitor and Visual Opacity Evaluation – Method 9
BS-8	0	Fugitive	SW-FE	TSP/PM-10 – Opacity	Plant #2 – Pugmill Feed Bin	99	as per above	as per above	Existing PM-10 Monitor and Visual Opacity Evaluation – Method 9
BS-9	0	Fugitive	SW-FE	TSP/PM-10 – Opacity	Plant #2 – Pugmill Bin	99	as per above	as per above	Existing PM-10 Monitor and Visual Opacity Evaluation – Method 9

NOTE: See .xls spreadsheet entitled "Air Pollution Control and Calculated Emissions"

DRAFT

AIR POLLUTION CONTROL AND MONITORING EQUIPMENT:

COMPANY NAME Dominion Terminal Associates			DATE	REGISTRATION NUMBER: 60997
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UNIT REF. NO.	MOD CODE	VENT/ STACK NO.	DEVICE REF. NO.	POLLUTANT/PARAMETER (See instructions)	AIR POLLUTION CONTROL EQUIPMENT				MONITORING INSTRUMENTATION
					MANUFACTURER AND MODEL NUMBER	TYPE (USE CODE L)	% EFFICIENCY		
							DESIGN	ACTUAL	
BC-1	0	TP-03	TC-FC	TSP/M-10 – Opacity	Rotary Dumper Discharge Belt	099	see note below	see note below	Existing PM-10 Monitor and Visual Opacity Evaluation – Method 9
BC-2	0	TP-04	TC-BH	TSP/M-10 – Opacity	Silo #1 Feed Belt	099	as per above	as per above	Existing PM-10 Monitor and Visual Opacity Evaluation – Method 9
BC-3	0	TP-06	TC-PC	TSP/PM-10 – Opacity	Silo #1 Discharge Belt	099	as per above	as per above	Existing PM-10 Monitor and Visual Opacity by Evaluation – Method 9
BC-4	0	TP-06A	TC-PE	TSP/PM-10 – Opacity	Stockpile Feed Belt	099	as per above	as per above	Existing PM-10 Monitor and Visual Opacity Evaluation – Method 9
BC-5	0	TP-12	TC-PC	TSP/PM-10 – Opacity	CC/Coke Transfer Belt	099	as per above	as per above	Existing PM-10 Monitor and Visual Opacity Evaluation – Method 9
BC-6	0	TP-12	TC-PC	TSP/PM-10 – Opacity	CC/Coke Transfer Belt	099	as per above	as per above	Existing PM-10 Monitor and Visual Opacity Evaluation – Method 9

NOTE: See .xls spreadsheet entitled "Air Pollution Control and Calculated Emissions"

DRAFT

AIR POLLUTION CONTROL AND MONITORING EQUIPMENT:

COMPANY NAME Dominion Terminal Associates			DATE	REGISTRATION NUMBER: 60997
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UNIT REF. NO.	MOD CODE	VENT/ STACK NO.	DEVICE REF. NO.	POLLUTANT/PARAMETER (See instructions)	AIR POLLUTION CONTROL EQUIPMENT				MONITORING INSTRUMENTATION
					MANUFACTURER AND MODEL NUMBER	TYPE (USE CODE L)	% EFFICIENCY		
							DESIGN	ACTUAL	
BC-7	0	TP-13	TC-PC	TSP/M-10 – Opacity	Stockpile Feed Belt	099	see note below	see note below	SPECIFY TYPE, MEASURED POLLUTANT, AND RECORDER USED
BC-8	0	TP-81	TC-PC	TSP/M-10 – Opacity	CC/Coke Transfer Belt	099	as per above	as per above	
BC-9	0	TP-82	TC-BH	TSP/PM-10 – Opacity	CC/Coke Transfer Belt	099	as per above	as per above	
BC-10	0	TP-87	TC-PE	TSP/PM-10 – Opacity	Loadout Belt	099	as per above	as per above	
BC-11	0	TP-84	TC-BH	TSP/PM-10 – Opacity	Silo Transfer Belt	099	as per above	as per above	Existing PM-10 Monitor and Visual Opacity Evaluation – Method 9
BC-12	0	TP-86	TC-BH	TSP/PM-10 – Opacity	Silo Transfer Belt	099	as per above	as per above	Existing PM-10 Monitor and Visual Opacity Evaluation – Method 9
BC-13	0	TP-78	TC-PC	TSP/PM-10 – Opacity	Stockpile Reversing Belt	099	as per above	as per above	Existing PM-10 Monitor and Visual Opacity Evaluation – Method 9

NOTE: See .xls spreadsheet entitled “Air Pollution Control and Calculated Emissions”

DRAFT

AIR POLLUTION CONTROL AND MONITORING EQUIPMENT:

COMPANY NAME Dominion Terminal Associates			DATE	REGISTRATION NUMBER: 60997
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UNIT REF. NO.	M O D E L	VENT/ STACK NO.	DEVICE REF. NO.	POLLUTANT/PARAMETER (See instructions)	AIR POLLUTION CONTROL EQUIPMENT				MONITORING INSTRUMENTATION
					MANUFACTURER AND MODEL NUMBER	TYPE (USE CODE L)	% EFFICIENCY		
							DESIGN	ACTUAL	
BC-14	0	TP-16	SL-CS	TSP/M-10 – Opacity	Clean Coal Stockpile Feed Belt	099	see note below	see note below	SPECIFY TYPE, MEASURED POLLUTANT, AND RECORDER USED
BC-15	0	TP-18	TC-FC	TSP/M-10 – Opacity	Crusher Feed Belt	099	as per above	as per above	
BC-16	0	TP-81	TC-FC	TSP/PM-10 – Opacity	CC/Coke Transfer Belt	099	as per above	as per above	
BC-17	0	TP-24	TC-PC	TSP/PM-10 – Opacity	Screen SS-1 Oversize Belt	099	as per above	as per above	
BC-18	0	TP-27	TC-FC	TSP/PM-10 – Opacity	Screen SS-1 Discharge Belt	099	as per above	as per above	Existing PM-10 Monitor and Visual Opacity Evaluation – Method 9
BC-19	0	TP-28	TC-FC	TSP/PM-10 – Opacity	Pugmill Bin feed Belt	099	as per above	as per above	Existing PM-10 Monitor and Visual Opacity Evaluation – Method 9
BC-20	0	TP-30	TC-FC	TSP/PM-10 – Opacity	Pugmill Mixer Feed Belt	099	as per above	as per above	Existing PM-10 Monitor and Visual Opacity Evaluation – Method 9

NOTE: See .xls spreadsheet entitled “Air Pollution Control and Calculated Emissions”

DRAFT

AIR POLLUTION CONTROL AND MONITORING EQUIPMENT:

COMPANY NAME Dominion Terminal Associates		DATE	REGISTRATION NUMBER: 60997
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UNIT REF. NO.	MOD CODE	VENT/ STACK NO.	DEVICE REF. NO.	POLLUTANT/PARAMETER (See instructions)	AIR POLLUTION CONTROL EQUIPMENT				MONITORING INSTRUMENTATION
					MANUFACTURER AND MODEL NUMBER	TYPE (USE CODE L)	% EFFICIENCY		
							DESIGN	ACTUAL	
BC-21	0	TP-32	TC-FC	TSP/M-10 – Opacity	Pugmill Mixer Discharge Belt	099	see note below	see note below	Existing PM-10 Monitor and Visual Opacity Evaluation – Method 9
BC-22	0	TP-33-36-39	TC-FC	TSP/M-10 – Opacity	Spreader Belt	099	as per above	as per above	Existing PM-10 Monitor and Visual Opacity Evaluation – Method 9
BC-23	0	TP-35	TC-FC	TSP/PM-10 – Opacity	Briquetter Discharge Belt	099	as per above	as per above	Existing PM-10 Monitor and Visual Opacity Evaluation – Method 9
BC-24	0	TP-38	TC-FC	TSP/PM-10 – Opacity	Briquetter Discharge Belt	099	as per above	as per above	Existing PM-10 Monitor and Visual Opacity Evaluation—Method 9
BC-25	0	TP-41	TC-FC	TSP/PM-10 – Opacity	Briquetter Discharge Belt	099	as per above	as per above	Existing PM-10 Monitor and Visual Opacity Evaluation – Method 9
BC-26	0	TP-42	TC-FC	TSP/PM-10 – Opacity	Screen SS-2 Feed Belt	099	as per above	as per above	Existing PM-10 Monitor and Visual Opacity Evaluation – Method 9

NOTE: See xls spreadsheet entitled "Air Pollution Control and Calculated Emissions"

DRAFT

AIR POLLUTION CONTROL AND MONITORING EQUIPMENT:

COMPANY NAME Dominion Terminal Associates			DATE	REGISTRATION NUMBER: 60997
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UNIT REF. NO.	MOD CODE	VENT/ STACK NO.	DEVICE REF. NO.	POLLUTANT/PARAMETER (See instructions)	AIR POLLUTION CONTROL EQUIPMENT				MONITORING INSTRUMENTATION
					MANUFACTURER AND MODEL NUMBER	TYPE (USE CODE L)	% EFFICIENCY		
							DESIGN	ACTUAL	
BC-27	0	TP-43	TC-FC	TSP/M-10 – Opacity	Recirculating Belt	099	see note below	see note below	SPECIFY TYPE, MEASURED POLLUTANT, AND RECORDER USED Existing PM-10 Monitor and Visual Opacity Evaluation – Method 9
BC-28	0	TP-45	TC-FC	TSP/M-10 – Opacity	Screen SS-2 Discharge Belt	099	as per above	as per above	
BC-29	0	TP-46	SL-CS	TSP/PM-10 – Opacity	Synfuel Stacking Belt	099	as per above	as per above	
BC-30	0	TP-49	TC-FC	TSP/PM-10 – Opacity	Crusher Feed Belt	099	as per above	as per above	
BC-31	0	TP-52	TC-FC	TSP/PM-10 – Opacity	Screen SS-3 Oversize Belt	099	as per above	as per above	Existing PM-10 Monitor and Visual Opacity Evaluation – Method 9
BC-32	0	TP-55	TC-FC	TSP/PM-10 – Opacity	Plant Feed Belt	099	as per above	as per above	Existing PM-10 Monitor and Visual Opacity Evaluation – Method 9
BC-33	0	TP-56	TC-FC	TSP/PM-10 – Opacity	Pugmill Bin Feed Belt	099	as per above	as per above	Existing PM-10 Monitor and Visual Opacity Evaluation – Method 9

NOTE: See .xls spreadsheet entitled "Air Pollution Control and Calculated Emissions"

DRAFT

AIR POLLUTION CONTROL AND MONITORING EQUIPMENT:

COMPANY NAME Dominion Terminal Associates			DATE	REGISTRATION NUMBER: 60997
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UNIT REF. NO.	M O D E L	VENT/ STACK NO.	DEVICE REF. NO.	POLLUTANT/PARAMETER (See instructions)	AIR POLLUTION CONTROL EQUIPMENT				MONITORING INSTRUMENTATION
					MANUFACTURER AND MODEL NUMBER	TYPE (USE CODE L)	% EFFICIENCY		
							DESIGN	ACTUAL	
BC-34	0	TP-58	TC-FC	TSP/M-10 – Opacity	Pugmill Mixer Feed Belt	099	see note below	see note below	Existing PM-10 Monitor and Visual Opacity Evaluation – Method 9
BC-35	0	TP-60	TC-FC	TSP/M-10 – Opacity	Pugmill Mixer Discharge Belt	099	as per above	as per above	Existing PM-10 Monitor and Visual Opacity Evaluation – Method 9
BC-36	0	TP-61- 64-67	TC-FC	TSP/PM-10 – Opacity	Spreader Belt	099	as per above	as per above	Existing PM-10 Monitor and Visual Opacity Evaluation – Method 9
BC-37	0	TP-63	TC-FC	TSP/PM-10 – Opacity	Briquetter Discharge Belt	099	as per above	as per above	Existing PM-10 Monitor and Visual Opacity Evaluation—Method 9
BC-38	0	TP-66	TC-FC	TSP/PM-10 – Opacity	Briquetter Discharge Belt	099	as per above	as per above	Existing PM-10 Monitor and Visual Opacity Evaluation – Method 9
BC-39	0	TP-69	TC-FC	TSP/PM-10 – Opacity	Silo Transfer Belt	099	as per above	as per above	Existing PM-10 Monitor and Visual Opacity Evaluation – Method 9

NOTE: See .xls spreadsheet entitled "Air Pollution Control and Calculated Emissions"

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AIR POLLUTION CONTROL AND MONITORING EQUIPMENT:

COMPANY NAME Dominion Terminal Associates			DATE	REGISTRATION NUMBER: 60997
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UNIT REF. NO.	MOD C O D E	VENT/ STACK NO.	DEVICE REF. NO.	POLLUTANT/PARAMETER (See instructions)	AIR POLLUTION CONTROL EQUIPMENT				MONITORING INSTRUMENTATION
					MANUFACTURER AND MODEL NUMBER	TYPE (USE CODE L)	% EFFICIENCY		
							DESIGN	ACTUAL	
BC-40	0	TP-70	TC-FC	TSP/M-10 – Opacity	Screen SS-4 Feed Belt	099	see note below	see note below	SPECIFY TYPE, MEASURED POLLUTANT, AND RECORDER USED Existing PM-10 Monitor and Visual Opacity Evaluation – Method 9
BC-41	0	TP-71	TC-PC	TSP/M-10 – Opacity	Recirculating Belt	099	as per above	as per above	
BC-42	0	TP-73	TC-FC	TSP/PM-10 – Opacity	Screen SS-4 Discharge Belt	099	as per above	as per above	
BC-43	0	TP-74	SL-CS	TSP/PM-10 – Opacity	Synfuel Stacking Belt	099	as per above	as per above	
BC-44	0	TP-76	TC-FC	TSP/PM-10 – Opacity	Stockpile Loadout Transfer Belt	099	as per above	as per above	
									Existing PM-10 Monitor and Visual Opacity Evaluation – Method 9

NOTE: See .xls spreadsheet entitled "Air Pollution Control and Calculated Emissions"

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AIR POLLUTION CONTROL AND MONITORING EQUIPMENT:

COMPANY NAME Dominion Terminal Associates			DATE	REGISTRATION NUMBER: 60997
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UNIT REF. NO.	MOD CODE	VENT/ STACK NO.	DEVICE REF. NO.	POLLUTANT/PARAMETER (See instructions)	AIR POLLUTION CONTROL EQUIPMENT				MONITORING INSTRUMENTATION
					MANUFACTURER AND MODEL NUMBER	TYPE (USE CODE L)	% EFFICIENCY		
							DESIGN	ACTUAL	
BC-45	4	TP-94	TC-PC	TSP/M-10 – Opacity	Coal Transfer Belt	099	see note below	see note below	SPECIFY TYPE, MEASURED POLLUTANT, AND RECORDER USED
BC-46	4	TP-95	TC-PC	TSP/M-10 – Opacity	Coal Transfer Belt	099	as per above	as per above	
BC-47	4	TP-96	TC-PC	TSP/PM-10 – Opacity	Coal Transfer Belt	099	as per above	as per above	
BC-48	4	TP-97	TC-BH	TSP/PM-10 -- Opacity	Coal Transfer Belt	099	as per above	as per above	
BC-49	4	TP-98	TC-BH	TSP/PM-10 -- Opacity	Coal Transfer Belt	099	as per above	as per above	Existing PM-10 Monitor and Visual Opacity Evaluation – Method 9

NOTE: See .xls spreadsheet entitled "Air Pollution Control and Calculated Emissions"

Code L - AIR POLLUTION CONTROL EQUIPMENT TYPE

1. Settling Chamber

2. Cyclone

3. Multicyclone

4. Cyclone scrubber

5. Orifice scrubber

6. Mechanical scrubber

7. Venturi scrubber

(a) fixed throat

(b) variable throat

8. Mist eliminator
9. Electrostatic Precipitator

(a) hot side

(b) cold side

(c) high voltage

(d) low voltage

(e) single stage

(f) two stage

(g) other (specify)

10. Filter

(a) baghouse

(b) other (specify)

11. Catalytic Afterburner

12. Direct Flame Afterburner
13. ABSORBER

(a) packed tower

(b) spray tower

(c) tray tower

(d) venturi

(e) other (specify)

14. ADSORBER

(a) activated carbon

(b) molecular sieve

(c) activated alumina

(d) silica gel

(e) other (specify)

15. Condenser (specify)

99. Other (specify) water spray when needed

AIR POLLUTION CONTROL AND MONITORING EQUIPMENT INSTRUCTIONS

UNIT REF. NO. - continue assigned reference number(s) from previous page(s).

MODIFICATION CODE - Choose a code and insert:

- 0. - No change.
- 1. - for increase in regulated limit.
- 2. - for physical change in emissions unit.
- 3. - for changes in related equipment.
- 4. - for new emissions unit(s).
- 5. - for replacement emissions unit(s).

VENT/STACK NO. - assign a unique vent/stack number for each vent or stack through which the process or equipment identified by this reference number exhausts.

DEVICE REF. NO. - assign a unique pollution control device reference number(s).

POLLUTANT/PARAMETER - list all pollutants emitted from this process/equipment that are controlled and/or monitored. List all surrogate parameters of the process/equipment that are monitored (e.g. - opacity, CO₂, etc.).

Air Pollution Control Equipment:

MANUFACTURER AND MODEL - list the manufacturer and model of the control equipment associated with the pollutant listed in the preceding column.
TYPE - identify the type of control equipment by using Code L.

PERCENT EFFICIENCY - list the design and actual control efficiency for the control equipment and associated pollutant.

Monitoring Instrumentation:

MONITOR MANUFACTURER AND MODEL NUMBER - list the manufacturer and model number of the stack gas monitor used to measure emissions of the specified pollutant at this emission point. List opacity monitors in association with particulate/PM₁₀ emissions.

SPECIFY TYPE OF RECORDER TO BE USED - list the type of recorder associated with the monitor (e.g. strip chart, data logger, etc.)

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AIR POLLUTION CONTROL EQUIPMENT - SUPPLEMENTAL INFORMATION.

COMPANY NAME		DATE	REGISTRATION NUMBER: 60997	
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DEVICE REF. NO.	TYPE (Use Code L)	LIQUID FLOW RATE(gpm) (Codes 4,5, 6,7,13,15)	LIQUID MEDIUM (Codes 4,5,6,7, 13,15)	CLEANING METHOD (Codes 9, 10,13,14)	NUMBER OF FIELDS (Code 9)	NUMBER OF SECTIONS (Codes 9,10)	AIR- TO- CLOTH RATIO (fpm) (Code 10)	FILTER MATERIAL (Code 10)	INLET TEMP (EF)	REGENERATION METHOD & CYCLE TIME (sec) (Code 14)	CHAMBER TEMP. (EF) (Codes 11,12)	RETENTION TIME (sec) (Codes 11,12)	PRESSURE DROP (in. H ₂ O) (if Codes 3,4,5,6,7, 10,13)

Code L - AIR POLLUTION CONTROL EQUIPMENT TYPE

1. Settling Chamber
2. Cyclone
3. Multicyclone
4. Cyclone scrubber
5. Orifice scrubber
6. Mechanical scrubber
7. Venturi scrubber
 (a) fixed throat
 (b) variable throat
8. Mist eliminator

9. Electrostatic Precipitator
 (a) hot side
 (b) cold side
 (c) high voltage
 (d) low voltage
 (e) single stage
 (f) two stage
 (g) other (specify)

10. Filter

11. Catalytic Afterburner
12. Direct Flame Afterburner

13. ABSORBER

- (a) packed tower
(b) spray tower
(c) tray tower
(d) venturi
(e) other (specify)

14. ADSORBER

- (a) activated carbon
(b) molecular sieve
(c) activated alumina
(d) silica gel
(e) other (specify)

15. Condenser (specify)
99. Other (specify)

DEPT

AIR POLLUTION CONTROL EQUIPMENT (SUPPLEMENTAL INFORMATION) INSTRUCTIONS

DEVICE REF. NO. - continue assigned reference number(s) from previous page(s).

TYPE - identify the type(s) of control equipment by using Code L. Code L offers a wide array of control equipment types to choose from, and many will not apply to a given situation. The other columns suggest codes to use from the Code L selection.

NOTE: For the remaining spaces, the applicable control device type numbers (see Code L) for which this information is required are listed in parentheses on the form.

LIQUID FLOW RATE - list in gallons per minute.

LIQUID MEDIUM - specify the type of liquid used in the control equipment, and the pH. For condensers, specify inlet temperatures of condensing medium (water, glycol, etc.) and inlet temperature of gas stream.

CLEANING METHOD - specify the method of cleaning the control equipment (e.g., a baghouse, No. 10a).

NUMBER OF SECTIONS/FIELDS - list the number of fields or chambers for ESPs (No. 9), or number of chambers for baghouses (No. 10).

AIR-TO-CLOTH RATIO - list in feet per minute or as specified by manufacturer (cubic feet per minute gas flow to square feet of cloth).

FILTER MATERIAL - list the type of material used for the baghouse filters.

INLET TEMP. - list the temperature at the inlet of the control equipment in degrees Fahrenheit.

REGENERATION METHOD & CYCLE TIME - list the regeneration method (steam stripping, hot air, etc.) and cycle time in seconds for adsorbers (No. 14). If regeneration is done offsite, please so state.

CHAMBER TEMP. - list the combustion temperature of afterburner chamber in degrees Fahrenheit.

RETENTION TIME - list the retention time for afterburners in seconds.

PRESSURE DROP - list the pressure drop across the control equipment in inches of water.

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BAGHOUSE AIR POLLUTION CONTROL DEVICE SHEET

BAGHOUSE NO. 1 – SURGE SILO NO. 1 (ID BS-1)

Complete a Baghouse Air Pollution Control Device Sheet for each baghouse control device.

1. Baghouse Control Device Identification Number: FE-BH
2. Manufacturer's name and model identification: Johnson Marsh Skykleen PCSB 10-10 Dust Collector
3. Number of compartments in baghouse: 1
4. Number of compartments online during normal operation and conditions: 1
5. Gas flow rate into baghouse: 8,000 ACFM @ Ambient °F and 14.7 PSIA
6. Total cloth area: 2396 ft²
7. Operating air to cloth ratio: 7.5 : 1 ft/min
8. Filter media type: Polyester fabric
9. Stabilized static pressure drop across baghouse: 2 inches H₂O
10. Baghouse operation is:
☐ Continuous ☒ Automatic ☐ Intermittent
11. Method used to clean bags:
☐ Shaker ☒ Pulse jet ☐ Reverse jet
12. Emission rate of particulate matter entering and exiting baghouse at maximum design operating conditions:
Entering baghouse: _____ lb/hr and 20 grains/ACF
Exiting baghouse: _____ lb/hr and .015 grains/ACF
13. Guaranteed minimum baghouse collection efficiency: 99 %
14. Provide a written description of the capture system (e.g. hooding and ductwork arrangement), size of ductwork and hoods and air volume, capacity and operating horsepower of fan:
Ductwork +20" pipe – Fan 9200 SCFM @ 10" WC & 70'
15. Describe the method of disposal for the collected material: Baghouse is a bin vent. Material is dropped directly from the bags back to the silo.

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BAGHOUSE AIR POLLUTION CONTROL DEVICE SHEET

BAGHOUSE NO. 2 – SURGE SILO NO. 2 & 3 (ID BS-2 and BS-3)

Complete a Baghouse Air Pollution Control Device Sheet for each baghouse control device.

1. Baghouse Control Device Identification Number: FE-BH
2. Manufacturer's name and model identification: Johnson Marsh Skykleen PCSB 10-10 Dust Collector
3. Number of compartments in baghouse: 1
4. Number of compartments online during normal operation and conditions: 1
5. Gas flow rate into baghouse: 18,000 ACFM @ Ambient °F and 14.7 PSIA
6. Total cloth area: 2396 ft²
7. Operating air to cloth ratio: 7.5 : 1 ft/min
8. Filter media type: Polyester fabric
9. Stabilized static pressure drop across baghouse: 2 inches H₂O
10. Baghouse operation is:
☐ Continuous ☒ Automatic ☐ Intermittent
11. Method used to clean bags:
☐ Shaker ☒ Pulse jet ☐ Reverse jet
12. Emission rate of particulate matter entering and exiting baghouse at maximum design operating conditions:
Entering baghouse: _____ lb/hr and 20 grains/ACF
Exiting baghouse: _____ lb/hr and .015 grains/ACF
13. Guaranteed minimum baghouse collection efficiency: 99 %
14. Provide a written description of the capture system (e.g. hooding and ductwork arrangement), size of ductwork and hoods and air volume, capacity and operating horsepower of fan:
Ductwork +50' – single fan on discharge of 2 houses; piped in parallel – Fan 20,700 ACFM @ 10" WC
15. Describe the method of disposal for the collected material: Baghouse is a bin vent. Material is dropped directly from the bags back to the silo.

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PROPOSED MAXIMUM CRITERIA POLLUTANT EMISSIONS:

COMPANY NAME Dominion Terminal Associates		DATE	REGISTRATION NUMBER: 60997
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UNIT REF. NO.	M O D C O D E	MAXIMUM EMISSION RATES TO ATMOSPHERE OF CRITERIA POLLUTANTS														STATE OPERATING PERMIT EMISSION CAP (Yes/No)	BASIS OF ESTIMATE (USE CODE M)
		PM * (PARTICULATE MATTER)		PM ₁₀ * (10 µM OR SMALLER PARTICULATE MATTER)		SO ₂ (SULFUR DIOXIDE)		NO _x (NITROGEN OXIDES)		CO (CARBON MONOXIDE)		VOC* (VOLATILE ORGANIC COMPOUNDS)		Pb (LEAD)			
		lb/hr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr		
CR-1																	
CR-2																	
SS-1																	
SS-2																	
SS-3																	
SS-4																	

SEE ATTACHED .xls spreadsheet entitled "AIR POLLUTION CONTROL AND CALCULATED EMISSIONS"

Code M - Emission Estimate Method (provide detailed calculations including assumed control efficiency of control equipment to support reported values.)

- 1. Stack Test (include a copy of summary)
- 2. Material Balance (include calculations)
- 3. Emission Factor (identify source) and include calculations
- 99. Other (describe)

* PM, PM₁₀, and VOCs should also be split up by component and reported under TOXIC OR HAZARDOUS POLLUTANTS.

PROPOSED MAXIMUM CRITERIA POLLUTANT EMISSIONS INSTRUCTIONS

UNIT REF. NO. - continue assigned reference number(s) from previous page(s).

MODIFICATION CODE - Choose a code and insert:

0. - No change.

1. - for increase in regulated limit.

2. - for physical change in emissions unit.
3. - for changes in related equipment.

4. - for new emissions unit(s).

5. - for replacement emissions unit(s).

MAXIMUM EMISSION RATES TO ATMOSPHERE OF CRITERIA POLLUTANTS - list the emission rates to the atmosphere for the pollutants indicated in pounds per hour and tons per year. Provide detailed calculations including assumed control efficiency of control equipment (if applicable) and hours used per year.

STATE OPERATING PERMIT EMISSION CAP - State "yes" or "no" as follows: "Yes" means that the applicant voluntarily requests an emission cap for the unit in question that is lower than allowable emissions for the unit; "no" means no such request is made. A "yes" answer should be accompanied by underlining the proposed emissions of the pollutant for which the cap is sought, in the tons per year column.

BASIS OF EMISSION ESTIMATES - Indicate how emissions listed have been derived by using Code M. Include all calculations.

CRITERIA POLLUTANTS are defined as follows:

Particulate Matter (PM) - any airborne finely divided solid material with an aerodynamic diameter smaller than 100 micrometers.

Carbon monoxide (CO) - colorless, odorless, tasteless gas.

Particulate (PM₁₀) - particulate matter with an aerodynamic diameter less than or equal to 10 micrometers.

Sulfur oxides (SOx) - measured as sulfur dioxide (SO₂).

Nitrogen Oxides (NOx) - all oxides of nitrogen except nitrous oxide.

Lead (Pb) - metal.

Volatile Organic Compounds (VOCs) - (see definition in 9 VAC 5-10-20.) Do not include acetone as a VOC. Do not include perchloroethylene as a VOC, but list it as a hazardous air pollutant (HAP) on the next page. The following compounds are currently exempt from the definition of VOC (however, items 3 and 4 below are still to be reported as toxic pollutants on the next page):

1. Methane
2. Ethane
3. 1,1,1-trichloroethane (methyl chloroform)
4. Methylene chloride
5. Trichlorofluoromethane (CFC-11)
6. Dichlorodifluoromethane (CFC-12)
7. Chlorodifluoromethane (CFC-22)
8. Trifluoromethane (FC-23)
9. 1,1,2-trichlorotrifluoroethane (CFC-113)
10. 1,2-dichlorotetrafluoroethane (CFC-114)
11. Chloropentafluoroethane (CFC-115)
12. Dichlorotrifluoroethane (HCFC-123)
13. Tetrafluoroethane (HFC-134a)
14. Dichlorofluoroethane (HCFC-141b)
15. Chlorodifluoroethane (HCFC-142b)

Note: PM, PM10 and VOC emissions should also be split up by toxic component and reported as TOXIC POLLUTANTS on the next page.

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PAST ACTUAL CRITERIA POLLUTANT EMISSIONS INSTRUCTIONS

UNIT REF. NO. - continue assigned reference number(s) from previous page(s).

MODIFICATION CODE - Choose a code and insert:

0. - No change.

1. - for increase in regulated limit.

2. - for physical change in emissions unit.
3. - for changes in related equipment.

4. - for new emissions unit(s).

5. - for replacement emissions unit(s).

AVERAGE ACTUAL EMISSIONS TO ATMOSPHERE OF CRITERIA POLLUTANTS FOR THE PERIOD - list the two-year period for which actual emission are averaged. Emissions are to be averaged over the last 24 consecutive months, unless another 24 consecutive month period is MORE reflective of NORMAL operations. If another period is used, please attach an explanation for using the different period.

PAST ACTUAL EMISSIONS AVERAGE for EACH POLLUTANT - list the average ACTUAL annual emissions to the atmosphere for the pollutants indicated in tons per year for each emission unit with MODIFICATION CODES 1, 2, 3 or 5. Be careful to include debottlenecked emission units (MOD CODE 3). The average is calculated using actual annual emissions for the past 24 consecutive months. If there is another 24 consecutive month period that is more reflective of NORMAL operations, that period may be used with DEQ concurrence.

BASIS OF EMISSION ESTIMATES - Indicate how the emissions listed have been derived using Code M. Include all calculations.

CRITERIA POLLUTANTS are defined as follows:

Particulate Matter (PM) - any airborne finely divided solid material with an aerodynamic diameter smaller than 100 micrometers.

Carbon monoxide (CO) - colorless, odorless, tasteless gas.

Particulate (PM₁₀) - particulate matter with an aerodynamic diameter less than or equal to 10 micrometers.

Sulfur oxides (SOx) - measured as sulfur dioxide (SO₂).

Nitrogen Oxides (NOx) - all oxides of nitrogen except nitrous oxide.

Lead (Pb) - metal.

Volatile Organic Compounds (VOCs) - (see definition in 9 VAC 5-10-20.) Do not include acetone as a VOC. Do not include perchloroethylene as a VOC, but list it as a hazardous air pollutant (HAP) on the next page. The following compounds are currently exempt from the definition of VOC (however, items 3 and 4 below are still to be reported as toxic pollutants on the next page):

1. Methane

2. Ethane

3. 1,1,1-trichloroethane (methyl chloroform)

4. Methylene chloride

5. Trichlorofluoromethane (CFC-11)

6. Dichlorodifluoromethane (CFC-12)

7. Chlorodifluoromethane (CFC-22)

8. Trifluoromethane (FC-23)

9. 1,1,2-trichlorotrifluoroethane (CFC-113)

10. 1,2-dichlorotetrafluoroethane (CFC-114)

11. Chloropentafluoroethane (CFC-115)

12. Dichlorotrifluoroethane (HCFC-123)

13. Tetrafluoroethane (HFC-134a)

14. Dichlorofluoroethane (HCFC-141b)

15. Chlorodifluoroethane (HCFC-142b)

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SOURCE-LEVEL TOXIC OR HAZARDOUS AIR POLLUTANT (HAP) EMISSIONS FROM THE PROPOSED FACILITY:

COMPANY NAME		DATE		REGISTRATION NUMBER: 60997				
SOURCE-WIDE MAXIMUM EMISSION RATES TO ATMOSPHERE OF POLLUTANT (Specify pollutant)*		IF CONTROLLED AS PROPOSED	WITHOUT THE PROPOSED CONTROLS	STATE OPERATING PERMITS EMISSION CAP (YES/NO)	BASIS OF ESTIMATES (USE CODE M)	UNIT REF. NO.	MOD CODE	VENT/STACK NO.
TOXIC OR HAZARDOUS POLLUTANT (HAP) NAME	CAS #							

Code M - Emission Estimate Method (provide detailed calculations including assumed control efficiency of control equipment, if applicable)

- 1. Stack Test (include a copy)
- 2. Material Balance (include calculations)
- 3. Emission Factor (identify)
- 99. Other (describe)

* Toxic Pollutant means a pollutant on the designated list at the front of this application. Particulate matter and volatile organic compounds are not toxic pollutants as generic classes of substances, but individual substances within these classes may be toxic pollutants because their toxic properties or because a TLV (tm) has been established. See the toxic pollutant listing in the front of this application.

** Specify which pollutants are also reported as components of PM, PM₁₀, or VOC on page 15.

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SOURCE-WIDE TOXIC OR HAZARDOUS AIR POLLUTANT (HAP) EMISSIONS INSTRUCTIONS

PROPOSED FACILITY - complete this page for any new emissions or increased emissions of toxic Pollutants or HAPs resulting from the Proposed Facility (from a new plant, or from any new, modified, reconstructed, or debottlenecked processes or equipment at an existing plant). It is not necessary to list each toxic or HAP emitted from the source unless so directed by the DEQ Regional Office. Then, for each toxic pollutant listed, which is not exempt by 9 VAC 5-60-300 C.3, 4 or 5, or D, E, or F or 9 VAC 5-80-1320 F of the Regulations, list the total source-wide emissions of that pollutant. Compliance is based on total toxic emissions from the source.

Reproduce these pages as necessary to provide information on the applicable toxic and HAP pollutants.

TOXIC OR HAP POLLUTANT NAME - List each toxic or HAP for which there are new or increased emissions from any emission unit at the source, as a result of the proposed changes.

CAS NO. - list the Chemical Abstract Services (CAS) number for each listed pollutant.

MAXIMUM EMISSION RATES TO ATMOSPHERE OF TOXIC POLLUTANTS - list the source-wide emission rates to the atmosphere for all listed toxic or HAP pollutants. in pounds per hour and tons per year per pollutant. List both the controlled emission rates and the emission rates without the proposed controls. . The controlled emission rates may be used to set air permit limits. Provide detailed calculations of the emission rates, using (for the proposed controlled emission rates) the proposed control efficiency of control equipment, and using the proposed limits on material, throughput and/or hours of operation per year.

Note: Any PM, PM10, or VOC emissions with Toxic Pollutant components should be also be listed on this page as TOXIC POLLUTANTS.

TOXIC OR HAP ALSO REPORTED ON PAGE 15 AS: (PM/PM₁₀/VOC or N/A) - Specify which pollutants are also reported as components of PM, PM₁₀, or VOC on page 15.

STATE OPERATING PERMIT EMISSION CAP - State "yes" or "no" as follows: "Yes" means that the applicant voluntarily requests an emission cap for the unit in question that is lower than the current allowable emissions for the unit; "no" means no such request is made. A "yes" answer should be accompanied by underlining the proposed emissions of the pollutant for which the cap is sought, in the tons per year column.

BASIS OF EMISSION ESTIMATES - Use Code M to indicate how the emissions that are listed, have been derived.

UNIT REF. NO. - continue assigned reference number(s) from previous page(s). List all emission unit reference numbers that emit this toxic or HAP pollutants.

MODIFICATION CODE - Choose the appropriate code(s) and insert:

- 0. - No modification.
- 1. - for increase in regulated limit.
- 2. - for physical change in emissions unit.
- 3. - for changes in related equipment.
- 4. - for new emissions unit(s).
- 5. - for replacement emissions unit(s).

VENT/STACK NO. - list the assigned unique vent/stack number for each vent or stack through which the process or equipment identified by this reference number exhausts.

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OTHER REGULATED POLLUTANT EMISSIONS FROM THE PROPOSED FACILITY:

COMPANY NAME Dominion Terminal Associates		DATE	REGISTRATION NUMBER: 60997
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UNIT REF. NO.	M O D E C O D E VENT/ STACK NO	MAXIMUM EMISSION RATES TO ATMOSPHERE OF POLLUTANT (Specify pollutant)*						STATE OPERATING PERMITS EMISSION CAP (YES/NO)	BASIS OF ESTIMATES (USE CODE M)	
		OTHER REGULATED POLLUTANT NAME*		CAS NO.	IF CONTROLLED AS PROPOSED		WITHOUT THE PROPOSED CONTROLS			
					lb/hr	tons/yr	lb/hr			tons/yr
UL-1	4	Source			see note below	see note below	see note below	NO	3	
UL-2	4	Source			as per above	as per above	as per above	NO	3	
BH-1	4	Source			as per above	as per above	as per above	NO	3	
BH-2	4	Source			as per above	as per above	as per above	NO	3	
BC-45	4	Source			as per above	as per above	as per above	NO	3	
BC-46	4	Source			as per above	as per above	as per above	NO	3	
BC-47	4	Source			as per above	as per above	as per above	NO	3	

NOTE: See xls spreadsheet entitled "Air Pollution Control and Calculated Emissions

Code M - Emission Estimate Method (provide detailed calculations including assumed control efficiency of control equipment, if applicable)

- 1. Stack Test (include a copy)
- 2. Material Balance (include calculations)
- 3. Emission Factor (identify)
- 99. Other (describe)

* Other Regulated Pollutant means any pollutant listed in the definition of "regulated pollutants" in Article 6 (9 VAC 5-80-1110 C) of the Regulations except for the Criteria Pollutants (PM, PM₁₀, SO₂, NO_x, CO, VOC and Pb) and the toxic/HAP pollutants listed on the toxic/HAP pollutant listing in the front of this application.

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OTHER REGULATED POLLUTANTS' EMISSIONS INSTRUCTIONS

PROPOSED FACILITY - complete page for emissions of "Other Regulated Pollutants" from each emission unit.

UNIT REF. NO. - continue assigned reference number(s) from previous page(s).

MODIFICATION CODE - Choose a code and insert:

- | | |
|---|---|
| 0. - No modification. | 3. - for changes in related equipment. |
| 1. - for increase in regulated limit. | 4. - for new emissions unit(s). |
| 2. - for physical change in emissions unit. | 5. - for replacement emissions unit(s). |

VENT/STACK NO. - assign a unique vent/stack number for each vent or stack through which the process or equipment identified by this reference number exhausts.

OTHER REGULATED POLLUTANT NAME - List each "other regulated pollutant" emitted from the facility/emission units listed. "Other regulated pollutants" are those pollutants listed in the definition of "regulated pollutants" in Article 6 (9 VAC 5-80-1110 C) of the Regulations except for the Criteria Pollutants (PM, PM₁₀, SO₂, NO_x, CO, VOC and Pb) and the toxic/HAP pollutants listed on the toxic/HAP pollutant listing in the front of this application.

CAS NO. - list the Chemical Abstract Services (CAS) number for each listed pollutant.

MAXIMUM EMISSION RATES TO ATMOSPHERE OF OTHER REGULATED POLLUTANTS - list the emission rates to the atmosphere for all pollutants listed in the definition of "regulated pollutants" in Article 6 (9 VAC 5-80-1110 C) of the Regulations except for the Criteria Pollutants (PM, PM₁₀, SO₂, NO_x, CO, VOC and Pb) and the toxic/HAP pollutants listed on the toxic/HAP pollutant listing in the front of this application. Give the maximum emission rates of each pollutant in pounds per hour and tons per year per reference number. List both the controlled emission rates and the emission rates without the proposed controls. . The controlled emission rates may be used to set air permit limits. Provide detailed calculations of the emission rates, using (for the proposed controlled emission rates) the proposed control efficiency of control equipment, and using the proposed limits on material, throughput and/or hours of operation per year.

STATE OPERATING PERMIT EMISSION CAP - State "yes" or "no" as follows: "Yes" means that the applicant voluntarily requests an emission cap for the unit in question that is lower than the current allowable emissions for the unit; "no" means no such request is made. A "yes" answer should be accompanied by underlining the proposed emissions of the pollutant for which the cap is sought, in the tons per year column.

BASIS OF EMISSION ESTIMATES - Use Code M to indicate how the emissions that are listed, have been derived.

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OPERATING PERIODS: (Optional use, to establish restriction on operating hours.)

COMPANY NAME		DATE	REGISTRATION NUMBER: 60997
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UNIT REF. NO.	PERCENT ANNUAL USE/THROUGHPUT BY SEASON				NORMAL PROCESS/EQUIPMENT OPERATING SCHEDULE			MAXIMUM EQUIPMENT/PROCESS OPERATING SCHEDULE		
	DECEMBER ----- FEBRUARY	MARCH ----- MAY	JUNE ----- AUGUST	SEPTEMBER ----- NOVEMBER	HOURS PER DAY	DAYS PER WEEK	WEEKS PER YEAR	HOURS PER DAY	DAYS PER WEEK	WEEKS PER YEAR

MAXIMUM FACILITY OPERATING SCHEDULE		
HOURS PER DAY	DAYS PER WEEK	WEEKS PER YEAR

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OPERATING PERIODS INSTRUCTIONS

UNIT REF. NO. - continue assigned reference number(s) from previous page(s).

PERCENT ANNUAL USE/THROUGHPUT BY SEASON - Give the percentage of time the process or equipment was operated (past five years), by the indicated seasons. Do the same for the proposed operation.

NORMAL PROCESS/EQUIPMENT OPERATING SCHEDULE - indicate the normal operating schedule expected for the process equipment.

MAXIMUM PROCESS/EQUIPMENT OPERATING SCHEDULE - indicate the maximum operating schedule expected for the process/equipment.

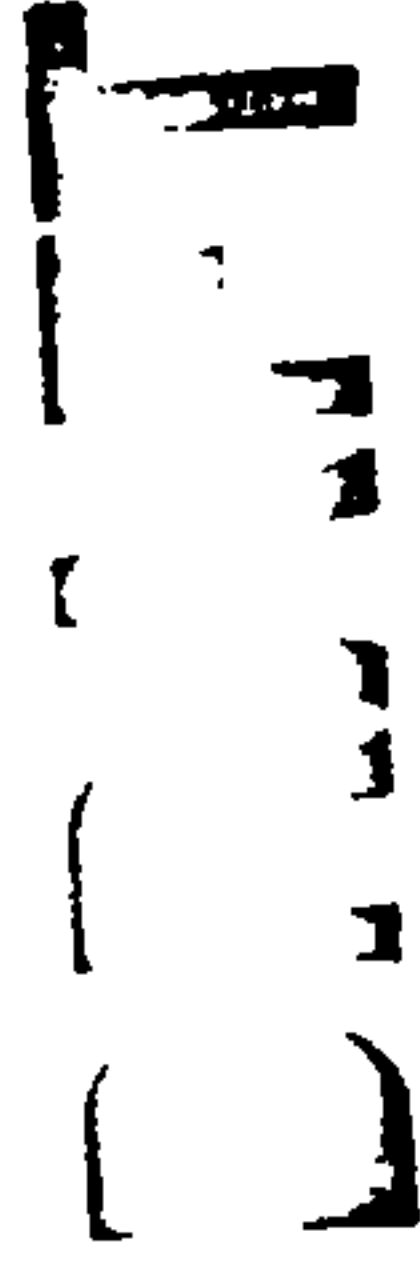
MAXIMUM FACILITY OPERATING SCHEDULE - indicate the maximum number of hours of operation for the entire facility.

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EPA ACCEPTED - CONTROL DEVICE LISTING

Fugitive Dust Sources	Control Device*	Control Device Prefix	Control Efficiency (%)
UNLOADING			
From Railcar or Truck	Full Enclosure Vented to Baghouse	UL-BH	99
From Railcar or Truck	Full Enclosure	UL-FE	70
From Railcar or Truck	Wet Suppression with Chemical Solution	UL-CS	80
From Railcar or Truck	Water Spray	UL-WS	50
Dump Bins	FE and Water Sprays with Chemical Solution	UD-FC	99
Dump Bins	Full Enclosure with water sprays	UD-FW	90
CRUSHING AND SCREENING			
Crushing or Screening	Full Enclosure Vented to Baghouse	CS-BH	99
Crushing or Screening	Wet Suppression with Chemicals	CS-CS	90
Crushing or Screening	Full Enclosure with Water Spray	CS-FW	90
Crushing or Screening	Full Enclosure/Wet Suppression/Chemicals	CS-FC	99
Crushing or Screening	Full enclosure	CS-FE	80
TRANSFER AND CONVEYING			
Conveyor Transfer Point	Full Enclosure Vented to Baghouse	TC-BH	99
Conveyor Transfer Point	Full Enclosure with Water Spray	TC-FW	90
Conveyor Transfer Point	FE and Water Spray with Chemical Solution	TC-FC	99
Conveyor Transfer Point	PE and Water Spray with Chemical Solution	TC-PC	95
Conveyor Transfer Point	Full enclosure	TC-FE	80
Conveyor Transfer Point	Water spray	TC-WS	70
Conveyor Transfer Point	Partial Enclosure	TC-PE	50
CLEANING			
Wet Wash Operations	Full Enclosure	WW-FE	100
STORAGE			
Loading onto Piles	Full Enclosure	SL-FE	80
Loading onto Piles	Telescopic Chute	SL-TC	75
Loading onto Piles	Wet Suppression with Chemical Solution	SL-CS	75
Loading onto Piles	Wind Guard	SL-WG	50
Wind Erosion	Full Enclosure	SW-FE	100
Wind Erosion	Wet Suppression with Chemical Solution	SW-CS	99
Wind Erosion	Water Spray	SW-WS	75
LOADING OUT			
From Stockpiles	Wet Suppression with Chemical Solution	LO-CS	95
From Stockpiles	Under-pile Conveyor with Water Sprays	LO-UC	85
From Stockpiles	Bucket Wheel Reclaimer	LO-RC	80
LOADING			
To Railcar, Barge or Truck	Wet Suppression with Chemical Solution	LR-CS	80
To Railcar, Barge or Truck	Telescopic Chute with Water Sprays	LR-TW	90
HAULROADS			
Unpaved	Water Truck with Chemical Solution	HR-CS	85
Unpaved	Water Truck with Water Spray	HR-WS	70

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Coal Handling and Storage Components

Unit Ref #	Description	Equip Code	Storage (Ktons)	Through Kton(hr)	Through Kton(day)	Through Kton(yr)	Ctrl'd Eff %	PM ctrl'd (tons/yr)	PM unctrl'd (tons/yr)	PM10 ctrl'd (tons/yr)	PM10 unctrl'd (tons/yr)
	See Drawings	CS-FC		0.700	6.849	2,500	99	0.1625	16.25	0.02925	2.925
	See Drawings	CS-FC		0.700	6.849	2,500	99	0.1625	16.25	0.02925	2.925
	See Drawings	CS-FC		0.700	6.849	2,500	99	1	100	0.18	18
	See Drawings	CS-FC		0.700	6.849	2,500	99	1	100	0.18	18
	See Drawings	CS-FC		0.700	6.849	2,500	99	1	100	0.18	18
	See Drawings	CS-FC		0.700	6.849	2,500	99	1	100	0.18	18
	See Drawings	SW-CS	350			24,000					
	See Drawings	SW-CS	350			24,000					
	See Drawings	SW-CS	350			24,000					
	See Drawings	SW-CS	350			24,000					
	See Drawings	SW-CS	40			5,000					
	See Drawings	SW-CS	0.050			2					
	See Drawings	SW-CS	20			5,000					
	See Drawings	SW-FE	1	2.740	38.356	14,000					
	See Drawings	SW-FE	3.8	2.740	32.877	12,000					
	See Drawings	SW-FE	4.1	2.740	32.877	12,000					
	See Drawings	SW-FE	0.05	0.700	6.849	2,500					
	See Drawings	SW-FE	0.005	0.700	6.849	2,500					
	See Drawings	SW-FE	0.005	0.700	6.849	2,500					
	See Drawings	SW-FE	0.005	0.700	6.849	2,500					
	See Drawings	SW-FE	0.005	0.700	6.849	2,500					
	See Drawings	SW-FE	0.005	0.700	6.849	2,500					
	See Drawings	TC-FC		2.740	38.356	14,000					
	See Drawings	TC-BH		2.740	38.356	14,000					
	See Drawings	TC-PC		2.740	38.356	14,000					
	See Drawings	TC-PE		2.740	57.534	21,000					
	See Drawings	TC-PE		2.740	57.534	21,000					
	See Drawings	TC-PC		2.740	30.137	11,000					
	See Drawings	TC-PC		2.740	30.137	11,000					
	See Drawings	TC-PC		2.740	84.932	31,000					
	See Drawings	TC-PC		2.740	84.932	31,000					
	See Drawings	TC-PC		2.740	65.753	24,000					
	See Drawings	TC-BH		2.740	65.753	24,000					
	See Drawings	TC-PE		2.740	65.753	24,000					

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Coal Handling and Storage Components

Unit Ref #	Description	Equip Code	Storage (Ktons)	Through Kton(hr)	Through Kton(day)	Through Kton(yr)	Ctrl'd Eff %	PM ctrl'd (tons/yr)	PM unctrl'd (tons/yr)	PM10 ctrl'd (tons/yr)	PM10 unctrl'd (tons/yr)
	See Drawings	LO-FC		2.740	65.753	24,000					
	See Drawings	TC-BH		2.740	32.877	12,000					
	See Drawings	TC-BH		2.740	65.753	24,000					
	See Drawings	TC-PC		2.740	30.137	11,000					
	See Drawings	SL-CS		6.800	13.699	5,000					
	See Drawings	TC-FC		1.400	13.699	5,000					
	See Drawings	TC-FC		1.400	6.849	2,500					
	See Drawings	TC-PC		0.000	0.005	2					
	See Drawings	TC-FC		0.700	6.849	2,500					
	See Drawings	TC-FC		0.700	6.849	2,500					
	See Drawings	TC-FC		0.700	6.849	2,500					
	See Drawings	TC-FC		0.700	6.849	2,500					
	See Drawings	TC-FC		0.700	6.849	2,500					
	See Drawings	TC-FC		0.700	6.849	2,500					
	See Drawings	TC-FC		0.233	2.283	833					
	See Drawings	TC-FC		0.233	2.283	833					
	See Drawings	TC-FC		0.233	2.283	833					
	See Drawings	TC-FC		0.700	6.849	2,500					
	See Drawings	TC-FC		0.000	0.005	2					
	See Drawings	TC-FC		0.700	6.849	2,500					
	See Drawings	SL-CS		0.700	6.849	2,500					
	See Drawings	TC-FC		1.400	6.849	2,500					
	See Drawings	TC-FC		0.000	0.005	2					
	See Drawings	TC-FC		0.700	6.849	2,500					
	See Drawings	TC-FC		0.700	6.849	2,500					
	See Drawings	TC-FC		0.700	6.849	2,500					
	See Drawings	TC-FC		0.700	6.849	2,500					
	See Drawings	TC-FC		0.700	6.849	2,500					
	See Drawings	TC-FC		0.233	2.283	833					
	See Drawings	TC-FC		0.233	2.283	833					
	See Drawings	TC-FC		0.233	2.283	833					
	See Drawings	TC-FC		0.700	6.849	2,500					
	See Drawings	TC-PC		0.000	0.005	2					
	See Drawings	TC-FC		0.700	6.849	2,500					
	See Drawings	TC-FC		0.700	6.849	2,500					
	See Drawings	SL-CS		0.700	6.849	2,500					
	See Drawings	TC-FC		1.400	13.699	5,000					

Coal Handling and Storage Components

New coal handling components for import of raw coal

Unit Ref #	Description	Equip Code	Storage Ktons	Through Kton(hr)	Through Kton(day)	Through Kton(yr)	Ctrl'd Eff %	PM ctrl'd (tons/yr)	PM unctrl'd (tons/yr)	PM10 ctrl'd (tons/yr)	PM10 unctrl'd (tons/yr)
<div></div>	See Drawings	UL-FE			13.699	5,000	70	0.8575616	2.8585386	0.1543611	0.514537
	See Drawings	UL-FE			13.699	5,000	70	0.8575616	2.8585386	0.1543611	0.514537
	See Drawings	TC-BH			13.699	5,000	99	0.0285854	2.8585386	0.0051454	0.514537
	See Drawings	TC-BH			13.699	5,000	99	0.0285854	2.8585386	0.0051454	0.514537
	See Drawings	TC-PC			27.397	10,000	95				
	See Drawings	TC-PC			27.397	10,000	95				
	See Drawings	TC-PC			13.699	5,000	95				
	See Drawings	TC_BH			13.699	5,000	99				
	See Drawings	TC_BH			13.699	5,000	99				

	PM ctrl'd (tons/yr)	PM unctrl'd (tons/yr)	PM10 ctrl'd (tons/yr)	PM10 unctrl'd (tons/yr)
New PM & PM10 Emissions Only	1.7722939	11.434154	0.3190129	2.058148

Piles (See 1989 permit application)
Total intermediate storage/processing
Transfers

	9.2	92	1.656	16.56
	6.0972939	443.93415	1.0975129	79.90815
	50.495678	313.65846	9.089222	56.45852
Total PM & PM10 (tons/yr)	65.792972	849.59261	11.842735	152.9267

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Coal Handling and Storage Components

E factors			See trans pts on Sheet 2
Crushers	0.013 lbs/ton	0 lbs/ton	
Transfers	0.0011434 lbs/ton	0.0011434 lbs/ton	
Screens	0.08 lbs/ton	0 lbs/ton	
Throughput	14,000 Ktons	5,000 Ktons	10,000 Ktons
Silt	3.5 %	not used	
Moisture	6.7 %	Based upon average moisture content as measured at DTA	
Avg Wind	10.5 mph	Based upon local weather data	
k	0.74	AP-42	
base	0.0032	AP-42	
EF trans	0.0011434 lbs/ton	AP-42	

Notes: The labels used for components are based upon EPA's suggested categories of dust control and the % control values are consistent with those published as "EPA Accepted Control Device Listing"

The emission factor at transfer points is computed using equations in AP-42

The emission factors for chrushers and screens back calculated from material in permit application (2002)

.0114 and .013	Used .013
.0249 and .08	Used .08
.0014 for converers/transfer points	Used .00114

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Transfer Points

Transfer Point	Control Type	Raw Rail (Ktons)	Synfuel (Ktons)	Raw Ship (Ktons)	Raw reclm (Ktons)	Synfuel reclm (Ktons)	Control Eff %	PM Ctrld (tons)	PM Unctrld (tons)	PM-new Ctrld (tons)	PM-new Unctrld (tons)	PM10 Ctrld (tons)	PM10 Unctrld (tons)	PM10-new Ctrld (tons)	PM10-new Unctrld (tons)
1	UD-FC						99	0.040	3.990			0.007	0.718		
2	UD-FC						99	0.040	3.990			0.007	0.718		
3	TC-FC						99	0.080	7.980			0.014	1.436		
4	TC-BH						99	0.080	7.980			0.014	1.436		
5	TC-PC						95	0.399	7.980			0.072	1.436		
6	TC-PC						95	0.399	7.980			0.072	1.436		
6A	TC-PE			5,000			50	3.424	6.840	1.429	2.85	0.616	1.231	0.257	0.513
6B	TC-PE			5,000			50	5.989	11.970	1.429	2.85	1.078	2.155	0.257	0.513
7	LO-RC			5,000			80	2.396	11.970	0.572	2.85	0.431	2.155	0.103	0.513
8			0				95	0.114	2.280			0.021	0.410		
9	TC-PE		0				50	1.710	3.420			0.308	0.616		
10	LO-RC		0				80	0.684	3.420			0.123	0.616		
11	TC-PC		0				95	0.314	6.270			0.057	1.129		
12	TC-PC						95	0.342	6.840			0.062	1.231		
12A	TC-PE			5,000			50	4.854	9.690	1.429	2.85	0.874	1.744	0.257	0.513
12B	TC-PE			5,000			50	8.848	17.670	1.429	2.85	1.593	3.181	0.257	0.513
13	LO-RC			5,000			80	3.539	17.670	0.572	2.85	0.637	3.181	0.103	0.513
15	TC-PC						95	0.143	2.850			0.026	0.513		
16	SL-CS						75	0.713	2.850			0.128	0.513		
17	LO-FC						99	0.014	1.425			0.003	0.257		
18	TC-FC						99	0.014	1.425			0.003	0.257		
19	UL-WS						50	0.001	0.001			0.000	0.000		
20	LO-PC						95	0.000	0.001			0.000	0.000		
21	TC-FC						99	0.000	0.001			0.000	0.000		
22	CS-FC						99	0.014	1.425			0.003	0.257		
23	TC-FC						99	0.000	0.001			0.000	0.000		
24	SL-CS						95	0.000	0.001			0.000	0.000		
25	LO-CS						80	0.000	0.001			0.000	0.000		
26	TC-FC						99	0.014	1.425			0.003	0.257		
27	TC-FC						99	0.014	1.425			0.003	0.257		
28	TC-FC						99	0.014	1.425			0.003	0.257		
29	TC-FC						99	0.014	1.425			0.003	0.257		
30	TC-FC						99	0.014	1.425			0.003	0.257		
31	TC-FC						99	0.014	1.425			0.003	0.257		
32	TC-FC						99	0.014	1.425			0.003	0.257		
33	TC-FC						99	0.005	0.475			0.001	0.086		
34	TC-FC						99	0.005	0.475			0.001	0.086		
35	TC-FC						99	0.005	0.475			0.001	0.086		

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Transfer Points

Transfer Point	Control Type	Raw Rail	Synfuel	Raw Ship	Raw reclm	Synfuel reclm	Control Eff %	PM Ctrld	PM Unctrld	PM-new Ctrld	PM-new Unctrld	PM10 Ctrld	PM10 Unctrld	PM10-new Ctrld	PM10-new Unctrld
36	TC-FC						99	0.005	0.475			0.001	0.086		
37	TC-FC						99	0.005	0.475			0.001	0.086		
38	TC-FC						99	0.005	0.475			0.001	0.086		
39	TC-FC						99	0.005	0.475			0.001	0.086		
40	TC-FC						99	0.005	0.475			0.001	0.086		
41	TC-FC						99	0.005	0.475			0.001	0.086		
42	TC-FC						99	0.014	1.425			0.003	0.257		
43	TC-FC						99	0.000	0.001			0.000	0.000		
43A	SL-CS						75	0.000	0.001			0.000	0.000		
44	TC-FC						99	0.014	1.425			0.003	0.257		
45	TC-PC						95	0.071	1.425			0.013	0.257		
46	SL-CS						75	0.357	1.425			0.064	0.257		
47	UL-WS						50	0.001	0.001			0.000	0.000		
48	LO-PC						95	0.071	1.425			0.013	0.257		
49	TC-FC						99	0.014	1.425			0.003	0.257		
50	CS-FC						99	0.014	1.425			0.003	0.257		
51	TC-FC						95	0.000	0.001			0.000	0.000		
52	SL-CS						75	0.000	0.001			0.000	0.000		
53	LO-CS						80	0.000	0.001			0.000	0.000		
54	TC-FC						99	0.014	1.425			0.003	0.257		
55	TC-FC						99	0.014	1.425			0.003	0.257		
56	TC-FC						99	0.014	1.425			0.003	0.257		
57	TC-FC						99	0.014	1.425			0.003	0.257		
58	TC-FC						99	0.014	1.425			0.003	0.257		
59	TC-FC						99	0.014	1.425			0.003	0.257		
60	TC-FC						99	0.014	1.425			0.003	0.257		
61	TC-FC						99	0.005	0.475			0.001	0.086		
62	TC-FC						99	0.005	0.475			0.001	0.086		
63	TC-FC						99	0.005	0.475			0.001	0.086		
64	TC-FC						99	0.005	0.475			0.001	0.086		
65	TC-FC						99	0.005	0.475			0.001	0.086		
66	TC-FC						99	0.005	0.475			0.001	0.086		
67	TC-FC						99	0.005	0.475			0.001	0.086		
68	TC-FC						99	0.005	0.475			0.001	0.086		
69	TC-FC						99	0.005	0.475			0.001	0.086		
70	TC-FC						99	0.014	1.425			0.003	0.257		

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Transfer Points

Transfer Point	Control Type	Raw Rail	Synfuel	Raw Ship	Raw reclm	Synfuel reclm	Control Eff %	PM Ctrld	PM Unctrld	PM-new Ctrld	PM-new Unctrld	PM10 Ctrld	PM10 Unctrld	PM10-new Ctrld	PM10-new Unctrld
71	TC-FC						99	0.000	0.001			0.000	0.000		
71A	SL-CS						75	0.000	0.001			0.000	0.000		
72	TC-FC						99	0.014	1.425			0.003	0.257		
73	TC-PC						95	0.071	1.425			0.013	0.257		
74	SL-CS						75	0.357	1.425			0.064	0.257		
75	LO-FC						99	0.029	2.850			0.005	0.513		
76	TC-PC						95	0.143	2.850			0.026	0.513		
79	TC-PC						95	0.342	6.840			0.062	1.231		
80	TC-PC						95	0.342	6.840			0.062	1.231		
81	TC-BH						99	0.031	3.135			0.006	0.564		
82	TC-PC						95	0.342	6.840			0.062	1.231		
83	TC-PC						95	0.306	6.128			0.055	1.103		
84	TC-BH						99	0.068	6.840			0.012	1.231		
85	TC-PC						95	0.342	6.840			0.062	1.231		
86	TC-PC						95	0.684	13.680			0.123	2.462		
86A	TC-PE						50	6.844	13.680			1.232	2.462		
87	SL-FE						80	2.738	13.680			0.493	2.462		

New Pts

88	UL-FE	5,000	70	0.858	2.850	0.858	2.85	0.154	0.513	0.154	0.513	0.513	0.154	0.513	0.513
89	UL-FE	5,000	70	0.858	2.850	0.858	2.85	0.154	0.513	0.154	0.513	0.513	0.154	0.513	0.513
90	TC-BH	5,000	99	0.029	2.850	0.029	2.85	0.005	0.513	0.005	0.513	0.513	0.005	0.513	0.513
91	TC-BH	5,000	99	0.029	2.850	0.029	2.85	0.005	0.513	0.005	0.513	0.513	0.005	0.513	0.513
92	TC-PC	5,000	95	0.143	2.850	0.143	2.85	0.026	0.513	0.026	0.513	0.513	0.026	0.513	0.513
93	TC-PC	5,000	95	0.143	2.850	0.143	2.85	0.026	0.513	0.026	0.513	0.513	0.026	0.513	0.513
94	TC-PC	10,000	95	0.286	5.700	0.286	5.7	0.051	1.026	0.051	1.026	1.026	0.051	1.026	1.026
95	TC-PC	10,000	95	0.286	5.700	0.286	5.7	0.051	1.026	0.051	1.026	1.026	0.051	1.026	1.026
96	TC-PC	5,000	95	0.143	2.850	0.143	2.85	0.026	0.513	0.026	0.513	0.513	0.026	0.513	0.513
97	TC-BH	5,000	99	0.029		0.029		0.005		0.005		0.005		0.005	
98	TC-BH	5,000	99	0.029		0.029		0.005		0.005		0.005		0.005	
Totals (tons/year) for new import										9.690	48.45	9.089	56.459	1.744	8.721

Totals (tons/year) for all transfers, c	=	50.496	313.66	PM ctrl	PM unctrl	PM10 ctrl	PM10 unctrl

EF trans	0.00114 lbs/ton	coal ship	
Ktons/yr	14,000	0.00114 lbs/ton	
	7,000	10,000	
		5,000	
		833	

Belt terms

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FUEL-BURNING EQUIPMENT AND STATIONARY COMBUSTION ENGINES (EXCEPT INCINERATORS)
(BOILERS, TURBINES, GAS/DIESEL ENGINES, KILNS, ETC.):

COMPANY NAME		DATE	REGISTRATION NUMBER: 60997
--------------	--	------	----------------------------

UNIT REF. NO.	EQUIPMENT MANUFACTURER, TYPE AND MODEL NUMBER	DATE OF MFR. OR CONST.	MOD CODE *	MAXIMUM RATED INPUT HEAT CAPACITY FOR EACH FUEL (MILLION BTU/HR)	TYPE OF FUEL	TYPE OF EQUIPMENT (USE CODE A)	MAXIMUM RATED OUTPUT APPROPRIATE TO SOURCE TYPE			USAGE (USE CODE B)
							STEAM QUANTITY (lb/hr)	OUTPUT BRAKE HORSEPOWER (BHP)	ELECTRICAL POWER (KW)	

* FOR MODIFICATION CODES SEE INSTRUCTIONS ON NEXT PAGE.

Code A - Equipment

BOILER TYPE:

- 1. Pulverized Coal - Wet Bottom
- 2. Pulverized Coal - Dry Bottom
- 3. Pulverized Coal - Cyclone Furnace
- 4. Spreader Stoker
- 5. Chain or Travelling Grate Stoker
- 6. Underfeed Stoker
- 7. Hand Fired Coal
- 8. Oil, Tangentially Fired
- 9. Oil, Horizontally Fired (except rotary cup)
- 10. Gas, Tangentially Fired
- 11. Gas, Horizontally Fired

Code A (continued)

- 12. Wood with Flyash Reinjection
- 13. Wood without Flyash Reinjection
- 14. Other Specify

STATIONARY ENGINE TYPE:

- 15. Combustion Turbine
- 16. Internal Combustion Engine
- 17. Other Specify

OTHER COMBUSTION UNITS:

- 18. Oven / Kiln
- 19. Rotary Kiln
- 18. Process Furnace
- 99. Other Specify

Code B - Usage

- 1. Steam Production
- 2. Drying / Curing
- 3. Space Heating
- 4. Process Heat
- 5. Food Processing
- 6. Electrical Generation
- 7. Mechanical Work
- 99. Other

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FUEL-BURNING EQUIPMENT AND STATIONARY
COMBUSTION ENGINES INSTRUCTIONS

UNIT REF. NO. - assign a unique reference number for each piece of fuel burning equipment. If the facility has other equipment already registered, do not repeat those reference numbers. **NOTE:** Where a unit burns more than one fuel, assign a separate line for each, pegged to the unit (i.e., #1A for oil, #1B for the same unit burning coal, etc.).

EQUIPMENT MANUFACTURER, TYPE AND MODEL NO. - provide the nameplate information for each piece of equipment

DATE OF MFR. OR CONST. - give the date that each emission unit was installed, constructed in place, or manufactured.

MODIFICATION CODE - Choose a code and insert:

- 0. - No change.
- 1. - for increase in regulated limit.
- 2. - for physical change in emissions unit.
- 3. - for changes in related equipment.
- 4. - for new emissions unit(s).
- 5. - for replacement emissions unit(s).

MAXIMUM RATED INPUT HEAT CAPACITY FOR EACH FUEL - provide the manufacturer's maximum rated heat input in Million BTUs per hour based on the nameplate rating or maximum fuel usage.

TYPE OF FUEL - identify all the types of fuel that will be burned by each referenced piece of equipment and the corresponding data for each fuel type. If used in a process, relate this to the appropriate process.

TYPE OF EQUIPMENT - use Code A at the bottom of the page.

MAXIMUM RATED OUTPUT APPROPRIATE TO SOURCE TYPE - provide the maximum rated output capacity in units consistent with your operation. Examples: if a boiler is to be installed to generate process steam, then report pounds of steam per hour or boiler horsepower; if a turbine is to be installed to generate electricity, report kilowatts of electricity; if a diesel engine is to be installed to power a blower, report the output brake horsepower (Also known as mechanical horsepower).

USAGE - Use Code B at the bottom of the page.

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STACK PAI...METERS AND FUEL DATA:

COMPANY NAME		DATE	REGISTRATION NUMBER: 60997
--------------	--	------	----------------------------

UNIT REF. NO.	VENT/ STACK NO.	VENT/STACK OR EXHAUST DATA						FUEL(S) DATA						
		VENT/ STACK CONFIG. (USE CODE K)	VENT STACK HEIGHT (feet)	EXIT GAS DIA. (feet)	EXIT GAS VELOCITY (fpm)	EXIT GAS VOLUME (acfm)	EXIT GAS TEMP. (°F)	TYPE OF FUEL	MAX. RATED BURNED/ HOUR (SPECIFY UNITS)	MAX. EXPECTED BURNED/ DAY (SPECIFY UNITS)	MAX. EXPECTED BURNED/ YEAR (SPECIFY UNITS)	HIGHER HEATING VALUE (SPECIFY UNITS)	MAX. % SULFUR	MAX. % ASH

Code K - Vent/Stack Configuration

- 1. Unobstructed vertical discharge
- 2. Obstructed vertical discharge (e.g., raincap)
- 3. Horizontal or downward discharge (e.g., T-stack)
- 99. Other (specify)

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STACK PARAMETERS AND . JEL DATA INSTRUCTIONS

UNIT REF. NO. - continue the unique assigned reference number(s) from page(s) 3 through 8.

VENT/STACK NO. - one reference number may have many exhaust points. Assign a unique vent/stack number for each vent or stack through which the process or equipment identified by this unit reference number exhausts.

VENT/STACK CONFIGURATION - indicate the appropriate configuration by using Code K.

VENT/STACK HEIGHT - list the exit height (in feet) from the ground level.

EXIT DIAMETER - list the inside diameter (in feet) of the vent/stack at its exit. For rectangular vents, provide length and width (in feet) of the vent/stack at its exit.

EXIT GAS VELOCITY - list the velocity in feet per minute of the stack gas as it exits the vent/stack.

EXIT GAS VOLUME - list the volume of the flow in actual cubic feet per minute.

EXIT GAS TEMPERATURE - list the temperature in degrees Fahrenheit.

TYPE OF FUEL - identify all the types of fuel that will be burned by each referenced piece of equipment and the corresponding data for each fuel type.

MAXIMUM RATE BURNED PER HOUR - provide the maximum rated fuel input at maximum design capacity in units such as pounds, gallons or cubic feet per hour.

MAXIMUM EXPECTED AMOUNT OF FUEL BURNED PER DAY - provide the maximum amount of fuel input expected in 24 hours. Use units corresponding to fuel type (e.g. tons for solid fuels, etc.).

MAXIMUM EXPECTED AMOUNT OF FUEL BURNED PER YEAR - provide the maximum amount of fuel input expected in one year. Use units corresponding to fuel type (e.g. tons for solid fuels, etc.).

HIGHER HEATING VALUE - provide the higher heating value of the specified fuel in BTUs per unit of fuel.

MAXIMUM PERCENT SULFUR - identify the highest percent sulfur content for the fuel.

MAXIMUM PERCENT ASH - identify the highest percent ash content for the fuel.

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Environmental Consultants, Inc.

800 Connecticut Blvd., East Hartford, CT 06108 (203) 289-8631

Dave Emmert

October 18, 1989

Mr. Thomas N. Houck, P.E.
Dominion Terminal Associates
Harbor Road, Pier 11
P. O. Box 967-A
Newport News, Virginia 23607

Dear Tom:

Enclosed please find a permit application and supporting basis report. This cover letter includes a verbal summary of the permit application.

Need for a Revised Permit

Dominion Terminal Associates plans an increase in the physical size of their operating area. This increase in acreage (from 68 to 101 acres) will allow for:

- Better pile management through greater flexibility in locating shipments for transfer.
- Lower height of piles through more acreage and better access.
- Reduced bulldozer traffic through better access to piles by the stacker/reclaimer equipment.

While the increase in acreage can be called a physical "expansion" the actual operational changes could better be described as "debottlenecking", i.e., increasing the area of storage and pile management in order to attain a larger capability for throughput.

Permit Modifications

The present permit is based upon maximum allowable emissions, annual throughput and maximum allowable tons in storage.

Dominion Terminal Associates is requesting only one substantive change in the permit, i.e. an increase of the maximum allowable quantity of coal storage from a maximum 1 million tons on the ground to a maximum of 1.4 million tons on the ground (Specific Condition 5). As an allowable average, there will be 975,000 tons on the ground. Peak pile heights will be reduced from 75 feet to

28.4 feet because of the better pile management obtainable through increased acreage. On average, pile heights will be reduced from 28.3' (650,000 tons) to 22.5' (850,000 tons).

Due to the uncertainty in emission factors for fugitive emissions, Dominion Terminal is not asking for any change in maximum allowable emissions. The maximum emissions calculated in this permit application are 60.8 tons per year of total suspended particulate and 26.4 tons per year of particulate matter less than 10 microns in diameter.

The calculated reductions in maximum emissions from the original permit (91.4 tons per year of total suspended particulate) occur because of slight changes in the facility as-built versus the design and the use of new published emission factors, including those recommended by EPA (AP-42). These changes result in a calculation that the allowable emissions (to be compared to the original application) would be 60.8 tons per year of TSP and 26.4 tons per year of PM₁₀.

These maximum emissions are a decrease in emissions. This is true primarily because the calculated emissions from storage pile wind erosion for the proposed maximum of 1.4 million tons stored on 101 acres are much less than the originally permitted 1 million tons on 66 acres. The reason is that lower pile heights and less disturbances of the piles result in better pile management and less wind erosion per quantity of coal stored.

The original permit application did not include the propane fired heaters used to thaw coal cars prior to offloading were not included. These emissions are included in the attached permit application. The use of the heaters results in only 0.004 tons per year of particulate matter emissions which are all smaller than 10 microns.

Allowable emission changes and permit conditions are summarized in Table I.

Actual Emissions

Dominion Terminal has been operating at less than maximum capacity, in part, because of the limited area and, in part, because of market conditions. Using the same calculation techniques, an estimate has been made of actual emissions for 1987, 1988 and under proposed operation. These calculations are not required in the permit application, but may be helpful in explaining the "expansion." Table II shows a summary of actual emissions. The proposed operation case assumes 17,500,000 tons per year throughput (a 45% increase) which is the forecast for improved market conditions but is still well below the current allowable throughput of 25,000,000 tons per year. A reduction of allowable throughput to 20,000,000 tons per year is shown in Table I and reflected in the permit application. It is also assumed that there will be an average of 850,000 tons stored at the facility. These projected actual emission are still substantially less than allowable.

Dominion Terminal Associates

-3-

October 18, 1989

The increases in expected actual emissions are not as great a percentage increase as expected from 45% greater throughput because the increased acreage will lead to better pile management. This calculation has also not taken credit for an increased and enhanced spray system, including closer spacing, whose control may be better than 90%.

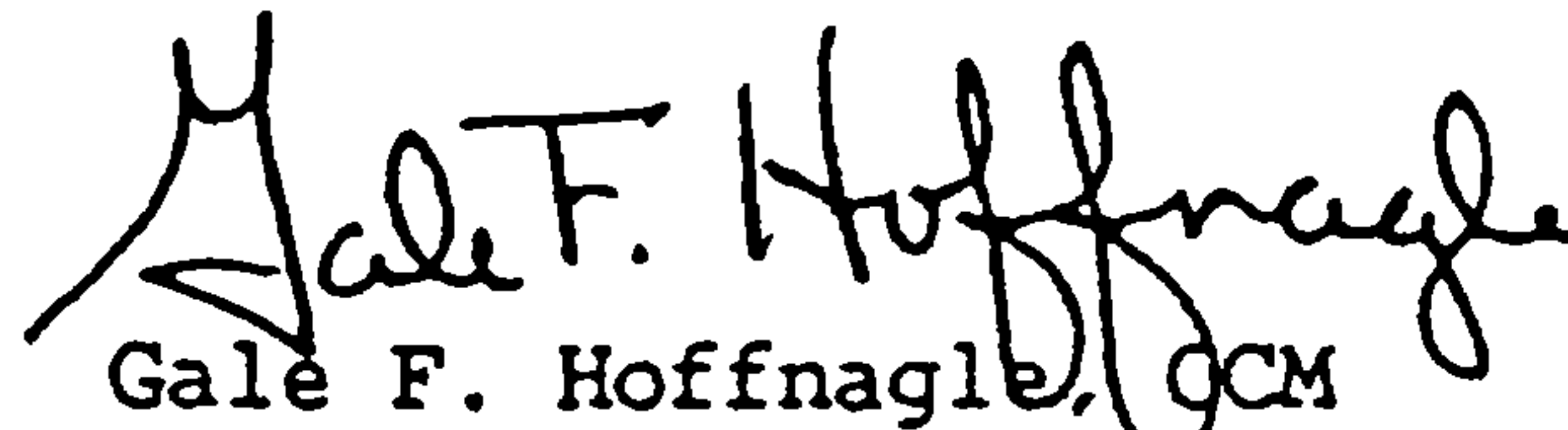
TRC wishes to acknowledge the assistance and work of Dr. David Emmitt of Simpson Weather Associates who provided invaluable understanding of the terminal operations and the calculations of wind erosion from storage piles.

It is clear that the "expansion" will result in a decrease in allowable emissions and that actual emissions as calculated will not increase as much as the increased throughput would indicate and in reality may not increase.

If you or anyone else has questions about the enclosed, please call.

Sincerely,

TRC ENVIRONMENTAL CONSULTANTS, INC.


Gale F. Hoffnagle, OCM
Vice President
and Technical Director

GFH/wpc
Enclosures

TRC

TABLE I
SUMMARY OF ALLOWABLE EMISSIONS
DOMINION TERMINAL ASSOCIATES

	Allowable Emissions Tons/Year		Allowable Throughput Millions Tons/Year	Maximum Allowable Storage Millions of Tons
	TSP	PM ₁₀		
Original Permit	91.4	NA	25	1
Recalculated Original Permit	60.8	26.4	25	1
Proposed Permit Modification	51.9	22.3	20	1.4

TABLE II
SUMMARY OF ACTUAL EMISSIONS
DOMINION TERMINAL ASSOCIATES

	1987	1988	Proposed
Coal Handling			
Throughput (Millions of Tons)	9.9	12.0	17.4
Emissions			
TSP (tons/year)	16.6	20.0	31.0
PM ₁₀ (tons/year)	7.7	9.3	14.4
Wind Erosion from Piles			
Storage (millions of tons)	0.585	0.586	0.850
Emissions			
TSP (tons/year)	4.5	5.5	7.8
PM ₁₀ (tons/year)	1.6	1.9	2.7
Total			
TSP (tons/year)	21.1	25.5	38.8
PM ₁₀ (tons/year)	9.3	11.2	17.1

BASIS FOR SAPCB PERMIT MODIFICATION
APPLICATION

Submitted to:

Dominion Terminal Associates
Newport News, Virginia

TRC Project Number 5974-T11

October 18, 1989

Submitted by:

John E. Yocom, P.E.
TRC Environmental Consultants, Inc.

G. David Emmitt, Ph.D.
Simpson Weather Associates, Inc.

1.0 BASIS FOR PERMIT APPLICATION

1.1 Applicable References

A. AP-42 (9/88)

B. Dominion Terminal Associates, SAPCB Form 7,
Submitted July, 6, 1981.

C. TRC Environmental Consultants, "Determination of Fugitive Coal Dust
Emissions from Rotary Railcar Dumping", May 1984.

1.0 BASIS FOR PERMIT APPLICATION - continued

1.2 Description of Emission Calculations

The existing facility and the proposed modification have been divided into three emission sources:

Coal Receiving Area
Coal Transfer and Storage Area
Coal Loadout Area

Note that the coal piles may be emitting while the terminal is inoperative.

1.2.1 Assumptions for Computations For Air Emissions From Dumping/Stacking/Reclaiming Operations

- 1) Annual throughput of coal is 20,000,000 tons.
- 2) Dumping capacity - maximum 5150 TPH based on 100 tons/car and 2.3 min/2 car cycle time, average 2874 TPH based on grade change, switching and delivery delays.
- 3) Stacking capacity - maximum 5900 TPH, average 2874 TPH with delays.
- 4) Reclaiming capacity - 20,000 to 188,000 ton capacity ships will be loaded at a design rate of 6,500 TPH and an average rate of 3,614 TPH with delays.
- 5) Pile height of 27.8' and an average annual storage capacity of 975,000 tons has been used in pile emission calculations.

1.2.2 Control Efficiencies

The following control efficiencies are used in this application and are based on previously filed air pollution reports:

- 1) 90% control for enclosed transfers where wet suppression with surfactants is used.
- 2) 75% control for transfer using lowering chutes and for open discharges using wet suppression.
- 3) 90% control for storage piles and their maintenance using wet dust suppression.
- 4) 99% control for baghouse dust collection and surge bin hoppers.
- 5) 50% control for spray controls on bucket wheel stacker/reclaimers in the reclaiming mode.

1.0 BASIS FOR PERMIT APPLICATION - continued

1.2 Description of Emission Calculations - continued

1.2.3 Equipment Transfer Tonnage Rates

	Maximum (TPH)	Average (TPH)
Car Dumpers	5150	2874
Conveyer C-1 and C-2	5150	2874
Conveyer C-3 and C-5	5900	2874
Conveyer C-4 and C-7: Stacking	5900	2874
Reclaiming	6200	3614
Conveyer C-6, C-8 and C-9	6200	3614
Conveyer C-10	6500	3614

Total suspended particulate (particle) emissions from each source point or area were calculated as follows:

Annual Uncontrolled Emissions

$\text{Ton/Yr} = \text{Process Flow Rate (Ton/Yr)} \times \text{Emission Factor (lb/ton)}$

Annual Controlled Emissions

$\text{Ton/Yr} = \text{Annual Uncontrolled Emissions (Ton/Yr)} \times (100 - \text{Percent Dust Control Efficiency})/100$

1.0 BASIS FOR PERMIT APPLICATION - continued

1.2 Description of Emission Calculations - continued

1.2.4 Rotary Car Dumper (From "Determination of Fugitive Coal Dust Emissions from Rotary Railcar Dumping" TRC Environmental Consultants, May 1984.)

TRC emission factor (EF) for Maryland site = $EF_{TSP} = 0.001 \text{ lb/ton}$

Aerodynamic particle size multiplier (k) for PM10 = 0.35 (Table 11.2.3-2, AP-42, 9/88)

$$EF_{PM10} = EF_{TSP} \times k = 0.001(0.35) = 0.00035 \text{ lb/ton}$$

To account for differences in silt and moisture content between the Maryland site and DTA, the emission factors were multiplied by the following correction factor as follows:

$$EF_{DTA} = EF_{MD} \times (S_D/S_M)/(M_D/M_M)^{1.4}$$

where,

S_D = Silt Content of Coal @ DTA = 6.17%

S_M = Silt Content of Coal @ Md. Site = 2.16%

M_D = Moisture Content of Incoming Coal @ DTA = 5.5%

M_M = Moisture Content of Coal @ Md. Site = 4.46%

Silt and moisture values were determined from samples collected at DTA and the Maryland site, with the exception of M_D , which was estimated from moisture data from companies supplying coal to DTA.

Emission factors were calculated as follows:

$$\begin{aligned} EF_{TSP} &= 0.001 \times (6.17/2.16)/(5.5/4.46)^{1.4} \\ &= 0.00213 \text{ lb/ton} \end{aligned}$$

$$\begin{aligned} EF_{PM10} &= 0.00035 \times (6.17/2.16)/(5.5/4.46)^{1.4} \\ &= 0.000746 \text{ lb/ton} \end{aligned}$$

1.0 BASIS FOR PERMIT APPLICATION - continued

1.2 Description of Emission Calculations - continued

1.2.5 Transfer Points (From AP-42, 9/88)

$$EF = k \times (0.0032)(U/5)^{1.3}/(M/2)^{1.4} \text{ (lb/ton)}$$

where,

k = Aerodynamic particle size multiplier

$$k_{TSP} = 0.74$$

$$k_{PM10} = 0.35$$

U = Mean wind speed = 10.7 mph (from National Climate Center Data for Norfolk, Virginia).

M = Moisture content of coal = 5.5% for incoming coal, = 6.5% for outgoing coal

Emission factors for dumping/stacking incoming coal are calculated as follows:

$$\begin{aligned} EF_{TSP} &= 0.74 \times (0.0032)(10.7/5)^{1.3}/(5.5/2)^{1.4} \\ &= 0.00154 \text{ lb/ton} \end{aligned}$$

$$\begin{aligned} EF_{PM10} &= 0.35 \times (0.0032)(10.7/5)^{1.3}/(5.5/2)^{1.4} \\ &= 0.00073 \text{ lb/ton} \end{aligned}$$

Emission factors for reclaiming/loading outgoing coal are calculated as follows:

$$\begin{aligned} EF_{TSP} &= 0.74 \times (0.0032)(10.7/5)^{1.3}/(6.5/2)^{1.4} \\ &= 0.00122 \text{ lb/ton} \end{aligned}$$

$$\begin{aligned} EF_{PM10} &= 0.35 \times (0.0032)(10.7/5)^{1.3}/(6.5/2)^{1.4} \\ &= 0.00058 \text{ lb/ton} \end{aligned}$$

1.0 BASIS FOR PERMIT APPLICATION - continued

1.2 Description of Emission Calculations - continued

1.2.6 Storage Piles - Comparisons between current and proposed DTA ground storage.

1.2.6.1 Assumptions for pile emission calculations for permitted ground storage and throughput

Bulk density of coal:	60 lb/ft ³ (962 kg/m ³)
Angle of repose:	37°
Stackout (SO) Refresh:	Entire average pile surface
Reclaim (RC) Refresh:	Entire average pile surface
Bulldozing done on same day as SO or RC	
Average pile base:	(230 x 300) = 69,000 ft ²
5' Margin area/pile:	<u>8,500 ft²</u>
Total base area/pile:	77,500 ft ²

	<u>Current</u>	<u>Proposed</u>
Permitted peak ground storage (tons):	1.0 x 10 ⁶	1.4 x 10 ⁶
Permitted average ground storage (tons):	1.0 x 10 ⁶	.975 x 10 ⁶
Permitted annual throughput (tons):	25.0 x 10 ⁶	20.0 x 10 ⁶
Average stackout tonnage:	7400	7400
Average # SO/day:	9.26	7.40
Average reclaim tonnage:	20,316	20,316
Average # of RC/day:	3.37	2.70

1.0 BASIS FOR PERMIT APPLICATION - continued

1.2 Description of Emission Calculations - continued

1.2.6 Storage Piles - continued

1.2.6.2 Allowable emissions both current and proposed and net % change

	<u>Current Allowable</u>	<u>Proposed Allowable</u>	<u>% Change</u>
Annual throughput (tons)	25 x 10 ⁶	20 x 10 ⁶	
Average tons on ground	1.0 x 10 ⁶	0.975 x 10 ⁶	
Number of piles:	15	22.8	+52
Tonnage of average pile:	66,666	42,763	-36
Height of average pile:	75' (22.9 m)	27.8' (8.5 m)	-63
Surface area of avg. pile:	85,205 ft ² (7,920 m ²)	77,489 ft ² (7,203 m ²)	-9
Area disturbed/day:	1,760,163 ft ² (100,030 m ²)	782,639 ft ² (72,736 m ²)	-27
Annual TSP emissions:			
Uncontrolled:	162.8 tons	92.0 tons	-43
90% controlled:	16.3 tons	9.2 tons	-43
Annual PM10 emissions ¹			
Uncontrolled:	57.0 tons	32.2 tons	-43
90% controlled:	5.7 tons	3.2 tons	-43

¹ The fraction of PM10 particles in TSP is assumed to be 0.35; therefore, annual PM10 emissions were calculated by multiplying annual TSP emissions by 0.35.

1.0 BASIS FOR PERMIT APPLICATION - continued

1.2 Description of Emission Calculations - continued

1.2.7 Other Emission Sources

1.2.7.1 Propane-fired thaw shed

Manufacturer and Model number: Solar Flow, #1RT-350

Rated heat capacity: 35 MBTU/hr

Rated heat content of propane: 1000 BTU/ft³

Rated fuel consumption: 35,000 ft³/hr (102 heaters,
350 ft³/hr/heater)

Actual heat capacity: 35.413 MBTU/hr

Actual heat content of propane: 2516 BTU/ft³

Annual fuel consumption (1987): 85,900 gallons = 3.13
million ft³

Hourly fuel consumption:

$$\frac{35,413,000 \text{ BTU/hour}}{2516 \text{ BTU/ft}^3} = 14,075 \text{ ft}^3/\text{hour propane}$$

The amount of sulfur and ash in the fuel is assumed to be negligible.

Emission rates were calculated as follows:

<u>Compound</u>	<u>Emission Rate (lb/1000 gal. LPG)</u>	<u>Annual Consumption (x 1000 gal. LPG)</u>	<u>Annual Emissions (tons/yr)</u>
Particulate	0.265	85.90	0.0114
Sulfur oxides	0.014	85.90	0.0006
Carbon monoxide	3.10	85.90	0.1331
Nitrogen oxides	12.40	85.90	0.5326
VOCs			
Non-methane	0.25	85.90	0.0197
Non-methane	0.27	85.90	<u>0.0116</u>
		TOTAL VOCs	0.0223

¹ Emission rates for LPG from Table 1.5-1, A-42 (9/88)

² Average value from Table 1.5-1, AP-42, (9/88)

The propane heater is used approximately 222 hours a years, depending on the ambient temperture. The heater is used during December, January, and February at an average rate of 18.5 hours/week.

1.0 BASIS FOR PERMIT APPLICATION - continued

1.3 Terminal Emissions

1.3.1 Operation Description

The following section describes individual transfer components and operating procedures of the coal terminal.

<u>Modes of Operation</u>	<u>Source Point and Area No.</u>	<u>Description</u>
1,2,3	1.	Coal discharged from railcars into hopper.
1,2,3	2.	Coal fed onto Conveyor C-1 by vibrating feeders.
1,2,3	3.	Conveyor C-1 discharges onto Conveyor C-2.
1,2,3	4a.	Conveyor C-2 discharges at Tower TT-1.
1,2,3	4b.	Surge Silo SS-1.
1,2,3	5.	Surge Silo SS-1 discharges onto Conveyor C-3.
1,2,3	6.	Conveyor C-3 discharges onto Conveyor C-4, C- 5 or C-6 at Tower TT-2.
2	7.	Conveyor C-4 discharges onto S/R #1 Elevating Conveyor.
2	8.	S/R #1 Elevating Conveyor discharges onto S/R #1 Boom Conveyor.
2	9.	S/R #1 Boom Conveyor discharges (Stacking Mode).
4	10.	S/R #1 Boom Conveyor loads (Reclaiming Mode).
4	11.	S/R #1 Boom Conveyor discharges onto Conveyor C-4.
4	12.	Conveyor C-4 discharges onto Conveyor C-6.
3	13.	Conveyor C-5 discharges onto Conveyor C-7 at Tower TT-3.
3	14.	Conveyor C-7 discharges onto S/R #2 Elevating Conveyor.

1.0 BASIS FOR PERMIT APPLICATION - continued

1.3 Terminal Emissions - continued

1.3.1 Operation Description -continued

<u>Modes of Operation</u>	<u>Source Point and Area No.</u>	<u>Description</u>
3	15.	S/R #2 Elevating Conveyor discharges onto S/R #2 Boom Conveyor.
3	16.	S/R #2 Boom Conveyor discharges (Stacking).
5	17.	S/R #2 Boom Conveyor loads (Reclaiming Mode).
5	18.	S/R #2 Boom Conveyor discharges onto C-7.
5	19.	Conveyor C-7 discharges onto Conveyor C-8 at Tower TT-3.
5	20a.	Conveyor C-8 discharges at Tower TT-4 (if going to Surge Silo SS-2) or onto Conveyor C- 11 (if going to Surge Silo SS-3).
5	20b.	Surge Silo SS-2 or SS-3.
1,4,6	21.	Conveyor C-6 discharges onto Conveyor C-9 at Tower TT-3.
1,4,6	22a.	Conveyor C-9 discharges at Tower TT-4 (if going to Surge Silo SS-2) or onto Conveyor C- 11 (if going to Surge Silo SS-3).
1,4,6	22b.	Surge Silo SS-2 or SS-3.
1,4,5,6	23.	Surge Silos SS-2 and SS-3 feed coal by vibrating feeders onto Conveyor C-12.
1,4,5,6	24.	Conveyor C-12 discharges onto Conveyor C-10.
1,4,5,6	25.	Pier Conveyor C-10 discharges onto Shiploader Boom Conveyor.
1,4,5,6	26.	Coal discharge from Shiploader Boom Conveyor through a telescoping chute into the ship.
6	27.	R-3 Boom Conveyor loads (Reclaiming Mode).
6	28.	R-3 Boom Conveyor discharges onto C-13.
6	29.	Conveyor C-13 discharges onto C-5 or C-6.

1.0 BASIS FOR PERMIT APPLICATION - continued

1.3 Terminal Emissions - continued

1.3.2 Terminal Operating Modes

In calculating annual emissions, the total time the facility is expected to operate in one of the following six modes was used. It should be noted that the facility can operate in certain combinations of these modes (i.e. Modes 2 and 5, Modes 2 and 6, Modes 3 and 4, and Modes 3 and 6).

<u>Mode</u>	<u>Description</u>	<u>Hours/Year</u> ¹
No.1	Coal loaded directly to ship	557
No.2	Coal transferred from dumper to S/R #1	3201
No.3	Coal transferred from dumper to S/R #2	3201
No.4	Coal transferred from S/R #1 to vessel	1926
No.5	Coal transferred from S/R #2 to vessel	1395
No.6	Coal transferred from R #3 to vessel	2214

The terminal will operate 24 hours per day, 365 days per year.

¹ Maximum number of hours operations expected to occur.

1.0 BASIS FOR PERMIT APPLICATION - continued

1.3 Terminal Emissions - continued

1.3.3 Emissions from Material Transfer Points

The maximum annual emissions of fugitive dust from the facility is summarized in Table 1. Maximum hourly emission rates for TSP and PM10 are summarized in Table 2 and Table 4, respectively. Maximum annual emission rates for TSP and PM10 are summarized in Table 3 and Table 5, respectively.

TABLE 1

TABLE 1

AS-BUILT ANNUAL EMISSIONS
20,000,000 TPH THROUGHPUT

EMISSION POINTS	MODES	HOURS	AVERAGE FLOW- RATE (TPH)	EMISSION FACTOR		CON- TROL (%)	AVG HOURLY TSP EMISSION	AVG HOURLY PM-10 EMISSION	AVERAGE YEARLY EMISSIONS	
				TSP (#/TON)	PM-10 (#/TON)		(#/HR)	(#/HR)	TSP (TONS/YR)	PM-10 (TONS/YR)
1	1,2,3	6958.4	2874	0.0021	0.00075	90%	0.612	0.214	2.130	0.746
2	1,2,3	6958.4	2874	0.0015	0.00073	90%	0.444	0.210	1.545	0.731
3	1,2,3	6958.4	2874	0.0015	0.00073	90%	0.444	0.210	1.545	0.731
4(a)	1,2,3	6958.4	2874	0.0015	0.00073	90%	0.444	0.210	1.545	0.731
4(b)	1,2,3	6958.4	2874	0.0015	0.00073	99%	0.044	0.021	0.154	0.073
5	1,2,3	6958.4	2874	0.0015	0.00073	90%	0.444	0.210	1.545	0.731
6	1,2,3	6958.4	2874	0.0015	0.00073	90%	0.444	0.210	1.545	0.731
7	2	3200	2874	0.0015	0.00073	90%	0.444	0.210	0.710	0.336
8	2	3200	2874	0.0015	0.00073	90%	0.444	0.210	0.710	0.336
9	2	3200	2874	0.0015	0.00073	75%	1.110	0.525	1.776	0.840
10	4	1920.8	3614	0.0012	0.00058	50%	2.209	1.045	2.122	1.004
11	4	1920.8	3614	0.0012	0.00058	90%	0.442	0.209	0.424	0.201
12	4	1920.8	3614	0.0012	0.00058	90%	0.442	0.209	0.424	0.201
13	3	3200	2874	0.0015	0.00073	90%	0.444	0.210	0.710	0.336
14	3	3200	2874	0.0015	0.00073	90%	0.444	0.210	0.710	0.336
15	3	3200	2874	0.0015	0.00073	90%	0.444	0.210	0.710	0.336
16	3	3200	2874	0.0015	0.00073	75%	1.110	0.525	1.776	0.840
17	5	1394.4	3614	0.0012	0.00058	50%	2.209	1.045	1.540	0.729
18	5	1394.4	3614	0.0012	0.00058	90%	0.442	0.209	0.308	0.146
19	5	1394.4	3614	0.0012	0.00058	90%	0.442	0.209	0.308	0.146
20(a)	5	1394.4	3614	0.0012	0.00058	90%	0.442	0.209	0.308	0.146
20(b)	5	1394.4	3614	0.0012	0.00058	99%	0.044	0.021	0.031	0.015
21	1,4,6	4698.4	3614	0.0012	0.00058	90%	0.442	0.209	1.038	0.491
22(a)	1,4,6	4698.4	3614	0.0012	0.00058	90%	0.442	0.209	1.038	0.491
22(b)	1,4,6	4698.4	3614	0.0012	0.00058	99%	0.044	0.021	0.104	0.049
23	1,4,5,6	6092.8	3614	0.0012	0.00058	90%	0.442	0.209	1.346	0.637
24	1,4,5,6	6092.8	3614	0.0012	0.00058	90%	0.442	0.209	1.346	0.637
25	1,4,5,6	6092.8	3614	0.0012	0.00058	90%	0.442	0.209	1.346	0.637
26	1,4,5,6	6092.8	3614	0.0012	0.00058	75%	1.105	0.522	3.365	1.592
27	6	2219.2	3614	0.0012	0.00058	50%	2.209	1.045	2.451	1.159
28	6	2219.2	3614	0.0012	0.00058	90%	0.442	0.209	0.490	0.232
29	6	2219.2	3614	0.0012	0.00058	90%	0.442	0.209	0.490	0.232

SUBTOTAL = 35.591 16.572
PILE EMISSION = 9.200 3.220

TOTAL (tons/yr) = 44.791 19.792

TABLE 2

TABLE 2

AS-BUILT
AVERAGE ANNUAL PM10 EMISSION RATES (lb/hr)

20,000,000 TONS PER YEAR
THROUGHPUT

EMISSION POINT	No.1	No.2	No.3	No.4	No.5	No.6
-----	----	----	-----	-----	-----	-----
1	0.214	0.214	0.214			
2	0.210	0.210	0.210			
3	0.210	0.210	0.210			
4(a)	0.210	0.210	0.210			
4(b)	0.021	0.021	0.021			
5	0.210	0.210	0.210			
6	0.210	0.210	0.210			
7		0.210				
8		0.210				
9		0.525				
10				1.045		
11				0.209		
12				0.209		
13			0.210			
14			0.210			
15			0.210			
16			0.525			
17					1.045	
18					0.209	
19					0.209	
20(a)					0.209	
20(b)					0.021	
21	0.209			0.209		0.209
22(a)	0.209			0.209		0.209
22(b)	0.021			0.021		0.021
23	0.209			0.209	0.209	0.209
24	0.209			0.209	0.209	0.209
25	0.209			0.209	0.209	0.209
26	0.522			0.522	0.522	0.522
27						1.045
28						0.209
29						0.209
	-----	-----	-----	-----	-----	-----
SUBTOTAL =	2.874	2.230	2.440	3.051	2.842	3.051
EMISSION =	0.735	0.735	0.735	0.735	0.735	0.735
	-----	-----	-----	-----	-----	-----
(tons/yr) =	3.609	2.965	3.175	3.786	3.577	3.786

TABLE 3

TABLE 3

AS-BUILT
AVERAGE ANNUAL PM10 EMISSION RATES (lb/hr)

20,000,000 TONS PER YEAR
THROUGHPUT

MODE	HOURLY EMISSION (lb/hr)	HOURS OF OPERATION 1988 (hr)	1988 ANNUAL EMISSION (ton)
1	2.874	558.4	0.802
2	2.230	3200	3.568
3	2.440	3200	3.904
4	3.051	1920.8	2.930
5	2.842	1394.4	1.982
6	3.051	2219.2	3.386
SUBTOTAL =			16.572
PILE EMISSION =			3.220
TOTAL (tons/yr) =			19.792

TABLE 4

TABLE 4

AS-BUILT
AVERAGE ANNUAL TSP EMISSION RATES (lb/hr)

20,000,000 TONS PER YEAR
THROUGHPUT

EMISSION POINT	No.1	No.2	No.3	No.4	No.5	No.6
-----	-----	-----	-----	-----	-----	-----
1	0.612	0.612	0.612			
2	0.444	0.444	0.444			
3	0.444	0.444	0.444			
4(a)	0.444	0.444	0.444			
4(b)	0.044	0.044	0.044			
5	0.444	0.444	0.444			
6	0.444	0.444	0.444			
7		0.444				
8		0.444				
9		1.110				
10				2.209		
11				0.442		
12				0.442		
13			0.444			
14			0.444			
15			0.444			
16			1.110			
17					2.209	
18					0.442	
19					0.442	
20(a)					0.442	
20(b)					0.044	
21	0.442			0.442		0.442
22(a)	0.442			0.442		0.442
22(b)	0.044			0.044		0.044
23	0.442			0.442	0.442	0.442
24	0.442			0.442	0.442	0.442
25	0.442			0.442	0.442	0.442
26	1.105			1.105	1.105	1.105
27						2.209
28						0.442
29						0.442
	-----	-----	-----	-----	-----	-----
SUBTOTAL =	6.234	4.874	5.318	6.451	6.009	6.451
EMISSION =	2.100	2.100	2.100	2.100	2.100	2.100
	-----	-----	-----	-----	-----	-----
(tons/yr) =	8.334	6.974	7.418	8.551	8.109	8.551

TABLE 5

TABLE 5

AS-BUILT
AVERAGE ANNUAL TSP EMISSION RATES (tons/yr)

20,000,000 TONS PER YEAR
THROUGHPUT

MODE	AVERAGE HOURLY EMISSION (lb/hr)	HOURS OF OPERATION 1988 (hr)	ANNUAL EMISSION (ton)
1	6.234	558.4	1.741
2	4.874	3200	7.799
3	5.318	3200	8.509
4	6.451	1920.8	6.195
5	6.009	1394.4	4.190
6	6.451	2219.2	7.158

SUBTOTAL = 35.591
PILE EMISSION = 9.200

TOTAL (tons/yr) = 44.791

Accretion Technologies, LLC PRODUCT INFORMATION



FTH-100

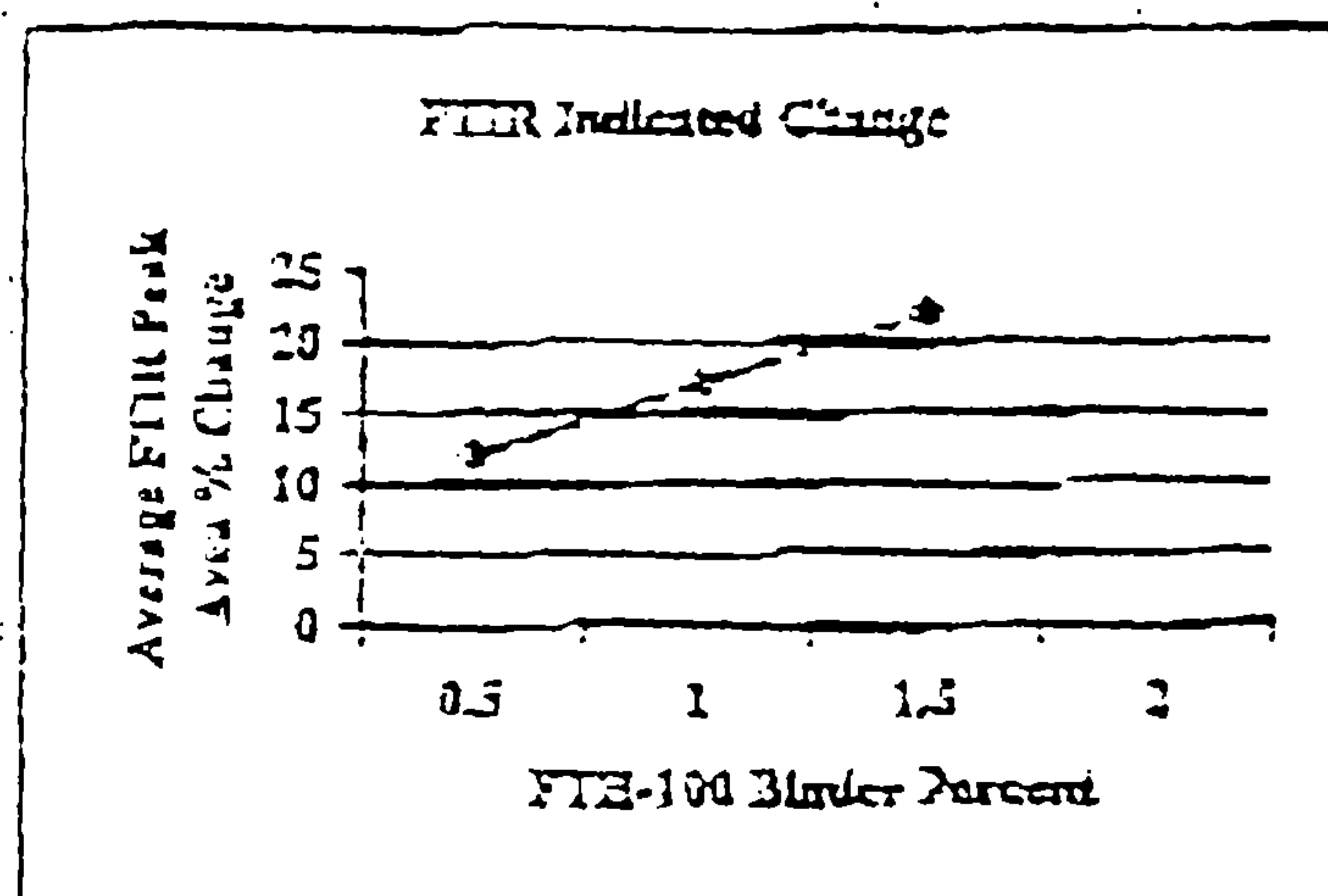
FTH-100 is an organic additive produced from renewable resources designed to provide the chemical bonding required in the SynFuel manufacturing process without any adverse effect to utilization or the environment.

FTH-100 Benefits

1. Produced from natural polymers.
2. Environmentally renewable resource.
3. Low viscosity for ease of application.
4. Very stable emulsion eliminates heated storage.
5. Permanently bonds to the fuel source and remains water resistant.
6. Neutral pH protects equipment from corrosion and deterioration.
7. Retains fuel combustion & coking properties.
8. Positive BTU addition of approximately 3,300 BTU/lb.
9. Ash and sulfur addition of less than 0.001%.
10. Positive environmental impact.

FTIR Test Information

SynFuel samples produced with FTH-100 submitted to Combustion Resources, Inc. for Fourier-transformed infrared (FTIR) analysis obtained the following indicated change:



According to Combustion Resources, Inc. previously performed statistical analyses on multiple coal samples suggest that, in general, an average peak area difference of greater than 15% represents a significant change in the functional groups indicated.

SynFuel Binder

Accretion Technologies, LLC
300 Business Center Drive, Suite 302, Pittsburgh, PA 15205
Telephone: (724) 941-8076 FAX (724) 941-9464

Technical Data Sheet

Product: FTH-100

RCRA Metals

<u>Metals</u>	<u>Result</u>	<u>EPA Method</u>
Arsenic	<1.0	208.2
Barium	<1.0	200.7
Cadmium	<0.05	200.7
Chromium	<1.0	200.7
Lead	0.22	239.2
Mercury	<0.002	245.1
Selenium	<0.5	270.2
Silver	<2.0	200.7

All data reported in mg/l

Technical Data Sheet

Product: FTH-100

Semi-Volatile Organics by Method 8270

CAS#	Compound	Concentration (ug/Kg)	
62-75-9	N-Nitrosodimethylamine	8,000	U
110-86-1	Pyridine	8,000	U
97-63-2	Ethyl methacrylate	8,000	U
123-63-7	Paraldehyde	8,000	U
109-06-8	2-Picoline	16,000	U
10595-95-6	Nitrosomethylethylamine	8,000	U
66-27-3	Methyl methanesulfonate	8,000	U
108-95-2	Phenol	8,000	U
55-18-5	N-Nitrosodiethylamine	8,000	U
62-50-5	Ethyl methanesulfonate	8,000	U
62-53-3	Aniline	8,000	U
76-01-7	Pentachloroethane	8,000	U
111-44-4	bis (2-Chloroethyl) ether	16,000	U
95-57-8	2-Chlorophenol	8,000	U
541-73-1	1,3-Dichlorobenzene	8,000	U
100-44-7	Benzyl chloride	8,000	U
106-46-7	1,4-Dichlorobenzene	8,000	U
100-51-6	Benzyl alcohol	8,000	U
95-50-1	1,2-Dichlorobenzene	8,000	U
95-48-7	2-Methylphenol	8,000	U
39638-32-9	bis (2-Chloroisopropyl) ether	8,000	U
108-39-4	3-Methylphenol	8,000	U
106-44-5	4-Methylphenol	8,000	U
930-55-2	N-Nitrosopyrrolidine	8,000	U
59-89-2	N-Nitrosomorpholine	8,000	U
98-86-2	Acetophenone	8,000	U
621-64-7	N-Nitroso-Di-n-Propylamine	8,000	U
636-21-5	o-Toluidine hydrochloride	8,000	U
67-72-1	Hexachloroethane	8,000	U
98-95-3	Nitrobenzene	8,000	U

Page 2

Product: FTH-100

Semi-Volatile Organics by Method 8270

CAS#	Compound	Concentration (ug/Kg)	
100-75-4	N-Nitrosopiperidine	8,000	U
78-59-1	Isophorone	8,000	U
88-75-5	2-Nitrophenol	8,000	U
105-67-9	2,4-Dimethylphenol	8,000	U
108-70-3	1,3,5-Trichlorobenzene	8,000	U
98-87-3	Benzal chloride	8,000	U
65-85-0	Benzoic acid	990	J
111-91-1	bis (2-Chloroethoxy) methane	8,000	U
120-83-2	2,4-Dichlorophenol	8,000	U
120-82-1	1,2,4-Trichlorobenzene	8,000	U
91-20-3	Napthalene	8,000	U
106-47-8	4-Chloroaniline	8,000	U
87-65-0	2,6-Dichlorophenol	16,000	U
95-54-5	o-Phenylenediamine	8,000	U
122-09-8	dimethylphenylethylamine	8,000	U
1888-71-7	Hexachloropropene	8,000	U
87-68-3	Hexachlorobutadiene	8,000	U
87-61-6	1,2,3-Trichlorobenzene	8,000	U
98-07-7	Benzotrichloride	16,000	U
924-16-3	N-Nitroso-di-n-butylamine	8,000	U
59-50-7	4-Chloro-3-methylphenol	8,000	U
106-50-3	P-Phenylenediamine	8,000	U
94-59-7	Safrole	8,000	U
106-50-3	m-Phenylenediamine	8,000	U
91-57-6	2-Methylnaphthalene	8,000	U
90-12-0	1-Methylnaphthalene	8,000	U
95-94-3	1,2,4,5-Tetrachlorobenzene	8,000	U
634-90-2	1,2,3,5-Tetrachlorobenzene	8,000	U
77-47-4	Hexachlorocyclopentadiene	8,000	U
88-06-2	2,4,6-Trichlorophenol	16,000	U
95-95-4	2,4,5-Trichlorophenol	16,000	U
120-58-1	Isosafrole	16,000	U
91-58-1	2-Chloronaphthalene	8,000	U
90-13-1	1-Chloronaphthalene	8,000	U

Page 3

Product: FTH-100

Semi-Volatile Organics by Method 8270

CAS#	Compound	Concentration (ug/Kg)	
634-66-2	1,2,3,4-Tetrachlorobenzene	8,000	U
88-74-4	2-Nitroaniline	8,000	U
130-15-4	1,4-Naphthoquinone	16,000	U
100-25-4	1,4-Dinitrobenzene	16,000	U
131-11-3	Dimethyl Phthalate	8,000	U
208-96-8	Acenaphthylene	8,000	U
99-09-2	3-Nitroaniline	16,000	U
83-32-9	Acenaphthene	8,000	U
51-28-5	2,4-Dinitrophenol	32,000	U
100-02-7	4-Nitrophenol	8,000	U
132-64-9	Dibenzofuran	8,000	U
121-14-2	2,4-Dinitrotoluene	8,000	U
608-93-5	Pentachlorobenzene	8,000	U
134-32-7	2-Naphthylamine	16,000	U
606-20-2	2,6-Dinitrotoluene	8,000	U
134-32-7	1-Naphthylamine	16,000	U
58-90-2	2,3,4,6-Tetrachlorophenol	16,000	U
84-66-2	Diethylphthalate	8,000	U
297-97-2	Zinophos	8,000	U
7005-72-3	4-Chlorophenyl-phenylether	8,000	U
86-73-7	Fluorene	8,000	U
100-01-6	4-Nitroaniline	16,000	U
99-55-8	5-Nitro-o-toluidine	16,000	U
534-52-1	4,6-Dinitro-2-methylphenol	24,000	U
86-30-6	N-Nitrosodiphenylamine (1)	8,000	U
122-39-4	Diphenylamine	8,000	U
99-35-4	1,3,5-Trinitrobenzene	16,000	U
122-66-7	1,2-Diphenylhydrazine	8,000	U

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Product: FTH-100

Semi-Volatile Organics by Method 8270

- U- Indicates compound was analyzed but not detected. The sample quantitation limit must be corrected for dilution and for percent moisture.
- L- Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero.
- B- This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.
- E- This flag identifies compounds whose concentrations exceed the calibration range of the GC-MS instrument for the specific analysis.

Technical Data Sheet

Product: FTH-100

TCLP Metals

Metals	Result	Limits	EPA Method
Arsenic	0.046	5.0	208.2
Barium	<0.50	100	208.1
Cadmium	<0.005	1.0	213.2
Chromium	<0.05	5.0	218.1
Lead	<0.05	5.0	239.1
Mercury	<0.001	0.2	245.1
Selenium	0.01	1.0	270.2
Silver	<0.005	5.0	272.1

All data reported in ppm

Technical Data Sheet

Product: FTH-100

Calorific Content by ASTM D-240

<u>Test</u>	<u>Result</u>
Calorific Content	8,826 BTU/lb

Reported on an as is basis

ACCRETION TECHNOLOGIES
MATERIAL SAFETY DATA SHEET

Page 1 of 6

Product Name: FTH-100

Preparation date: 8/16/00

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: FTH-100 MSDS REVISION #: 001

SYNONYMS: None

DISTRIBUTED BY: Accretion Technologies
300 Business Center Drive, Suite 302
Pittsburgh, PA 15205

PHONE NUMBER: (304) 552-2919

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

<u>Component</u>	<u>%</u>	<u>CAS No.</u>	<u>Exposure Limits</u>
Organic resins	30-80	Proprietary	Not established
Surfactant blend	1-10	Proprietary	Not established
Guar gum	1-10	9000-30-0	Not established
Fatty alcohol/fatty acid	1-10	Proprietary	Not established
Water	30-60	7732-18-6	Not established

SECTION 3 - HAZARDS IDENTIFICATION

***** EMERGENCY OVERVIEW *****

Product is a brown liquid with a slight, bland odor. The product may cause eye irritation. Avoid contact with skin, eyes and clothing. Wear protective goggles and gloves when handling this product. Wash thoroughly after handling.

POTENTIAL HEALTH EFFECTS

EYES:
Can cause irritation.

Section 3 continued on next page

**ACCRETION TECHNOLOGIES
MATERIAL SAFETY DATA SHEET**

Page 2 of 6

Product Name: FTH-100

Preparation date: 8/16/00

SECTION 3 - HAZARDS IDENTIFICATION (continued)

SKIN:

Prolonged or repeated contact may slight irritation. Persons with pre-existing skin conditions are particularly susceptible.

INGESTION (swallowing):

May cause irritation of the mouth and throat, nausea, vomiting and diarrhea.

INHALATION (breathing):

Spray or mist may cause irritation to the nose, throat and lungs. Persons with pre-existing lung disorders are particularly susceptible.

CHRONIC EFFECTS/CARCINOGENICITY:

This product (or component) is not listed in IARC Monographs, the NTP Seventh Annual Report or the ACGIH TLVs as a carcinogen or potential carcinogen. OSHA does not regulate it as a carcinogen.

SECTION 4 - FIRST AID MEASURES

EYE CONTACT:

Flush with large amounts of water for at least 15 minutes, lifting upper and lower lids occasionally. Get medical attention.

SKIN CONTACT:

Wash exposed area with soap and water. Launder contaminated clothing before reuse.

INGESTION (swallowing):

Immediately drink two large glasses of water. Call a physician. Do NOT induce vomiting unless instructed to do so by physician. Never give anything by mouth to an unconscious person.

INHALATION (breathing):

If affected, move to fresh air.

ACCRETION TECHNOLOGIES
MATERIAL SAFETY DATA SHEET

Page 3 of 6

Product Name: FTH-100

Preparation date: 8/15/00

SECTION 5 - FIRE FIGHTING MEASURES

FLASH POINT: ~500° F (100° C)

FLASH POINT METHOD: PMCC

UPPER EXPLOSION LIMIT: Unavailable

LOWER EXPLOSION LIMIT: Unavailable

AUTOIGNITION TEMPERATURE: Unavailable

SENSITIVITY/SPARKS: Unknown

SENSITIVITY/STATIC ELECTRICITY: Unknown

EXTINGUISHING MEDIA:

Dry chemical, water fog, and regular foam

FIRE AND EXPLOSION HAZARDS:

None known. Product contains a large amount of water, and would not normally burn.

FIRE-FIGHTING EQUIPMENT:

Keep personnel removed from and upwind. Wear full protective clothing and self-contained breathing apparatus with full face-piece.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Persons not wearing protective equipment should be excluded from the area of the spill until clean up has been completed. Dike area of spill to prevent spreading and pump liquid to salvage tank. Absorb remaining liquid on vermiculite, floor absorbent or other absorbent material and shovel into containers.

SECTION 7 - HANDLING AND STORAGE

HANDLING:

Avoid contact with skin, eyes and clothing. Wash thoroughly after handling.

STORAGE:

Keep in closed or covered containers when not in use. Store in cool dry place with adequate ventilation.

ACCRETION TECHNOLOGIES
MATERIAL SAFETY DATA SHEET

Page 4 of 6

Product Name: FTH-100

Preparation date: 8/16/00

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION:

Not required under normal conditions.

SKIN PROTECTION:

Wear protective gloves such as Neoprene or Buna-N.

EYE PROTECTION:

Chemical splash goggles in compliance with OSHA regulations are advised.

OTHER PROTECTION:

Normal work clothing covering arms and legs are recommended.

ENGINEERING CONTROLS:

Provide sufficient ventilation to maintain exposure below level of overexposure.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Brown liquid @ 68° F (20° C)
ODOR:	Slight bland
SPECIFIC GRAVITY:	>0.998
VAPOR PRESSURE (mm Hg):	17.5 @ 68° F (20° C)
VAPOR DENSITY (Air = 1):	Lighter than air
INITIAL BOILING POINT:	212° F (100° C)
EVAPORATION RATE:	<1
(Ethyl Ether = 1)	
SOLUBILITY in WATER:	Dispersible
VOLATILE %:	Unavailable
pH:	5-7
pH METHOD:	Unavailable

ACCRETION TECHNOLOGIES
MATERIAL SAFETY DATA SHEET

Page 5 of 8

Product Name: FTH-100

Preparation date: 8/16/00

SECTION 10 - STABILITY AND REACTIVITY

STABILITY (conditions to avoid):

Stable under normal conditions.

INCOMPATIBILITIES (materials to avoid):

Avoid contact with strong oxidizing agents and strong mineral acids.

DECOMPOSITION:

Not available.

HAZARDOUS POLYMERIZATION:

Can not occur.

SECTION 11 - TOXICOLOGICAL INFORMATION

No data available.

SECTION 12 - ECOLOGICAL INFORMATION

In an effort to demonstrate the safety of the product when used as a dust control agent, 82 grams of product were mixed with 1,890 grams of aggregate, typical of dirt roads. The mixture was allowed to dry, then mixed with water and allowed to stand. The water was then tested in aquatic toxicity studies, and found to be non-toxic to *Daphnia magna*.

SECTION 13 - DISPOSAL CONSIDERATIONS

Incineration is the recommended disposal method for all chemical wastes. Material collected on absorbent material may be deposited in a landfill in accordance with all applicable local, state and federal regulations.

This product, if disposed of, is not considered a hazardous waste under current RCRA definitions.

SECTION 14 - TRANSPORT INFORMATION

ACCRETION TECHNOLOGIES
MATERIAL SAFETY DATA SHEET

Page 6 of 6

Product Name: FTH-100

Preparation date: 8/16/00

Not regulated under current DOT, IMO, or ICAO regulations.

SECTION 15 - REGULATORY INFORMATION

TSCA INFORMATION:

All components in this product are in compliance with TSCA Inventory requirements.

SARA 313 INFORMATION:

SARA requires submission of annual reports of release of toxic chemicals that appear in 40 CFR 372. This information must be included in all MSDS that are copied and distributed for this material.

Components present in this product at a level that could require reporting under the statute are: None

SECTION 16 - OTHER INFORMATION

HAZARD RATING:

HEALTH	1	0 - LEAST
FIRE	1	1 - SLIGHT
REACTIVITY	0	2 - MODERATE
OTHER	-	3 - HIGH
		4 - EXTREME

HAZARD RATING METHOD: NFPA

REASON FOR REVISION:

Updated flash point information (Section 5).

The product information contained herein is believed to be accurate as of the date of the Material Safety Data Sheet, and is provided without warranty, expressed or implied, as to the results of use of this information or the product to which it relates. Recipient assumes all responsibility for the use of this information and the use (alone or in combination with any other product), storage or disposal of the product, including any resultant personal injury or property damage.

****END OF REPORT****

Technical Data Sheet

Product: FTH-100

Volatile Organics by Method 8240

CAS#	Compound	Concentration (ug/Kg)	
74-87-3	Chloromethane	23	J
74-83-9	Bromomethane	26	U
75-01-4	Vinyl chloride	53	U
75-00-3	Chloroethane	53	U
75-09-2	Methylene chloride	1,700	B,E
67-64-1	Acetone	2,800	B,E
75-15-0	Carbon disulfide	22	J
75-35-4	1,1-Dichloroethane	26	U
75-34-3	1,1-Dichloroethane	26	U
540-59-0	1,2-Dichloroethane (total)	26	U
67-66-3	Chloroform	27	
107-06-2	1,2-Dichloroethane	26	U
78-93-3	2-Butanone	830	B
71-55-6	1,1,1-Trichloroethane	26	U
56-23-5	Carbon tetrachloride	26	U
108-05-4	Vinyl acetate	53	U
75-27-4	Bromodichloromethane	26	U
78-87-5	1,2-Dichloropropane	26	U
10061-01-5	cis-1,3-Dichloropropane	26	U
79-01-6	Trichloroethane	26	U
124-48-1	Dibromochloromethane	26	U
79-00-5	1,1,2-Trichloroethane	26	U
71-43-2	Benzene	150	
10061-02-6	Trans-1,3-Dichloropropene	26	U
110-75-8	2-Chloroethylvinylether	53	U
75-25-2	Bromoform	53	U
108-10-1	4-Methyl-2-Pentanone	280	
591-78-6	2-Hexanone	79	U
127-18-4	Tetrachloroethane	26	U
79-34-5	1,1,2,2-Tetrachloroethane	53	U

Page 2

Product: FTH-100

Volatile Organics by Method 8240

CAS#	Compound	Concentration (ug/Kg)	
108-88-3	Toluene	1,300	E
108-90-7	Chlorobenzene	26	U
100-41-4	Ethylbenzene	360	
100-42-5	Styrene	63	
1330-20-7	Total xylenes	340	
74-88-4	Iodomethane	53	U
107-02-8	Acrolein	640	U
107-13-1	Acrylonitrile	26	U
75-69-4	Trichlorofluoromethane	26	U
107-05-1	3-Chloropropene	79	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoromethane	53	U
354-58-5	1,1,1-Trichloro-2,2,2-trifluoromethane	53	U
74-95-3	Dibromomethane	53	U
4170-30-3	Crotonaldehyde	530	U
106-93-4	1,2-Dibromoethane	26	U
630-20-6	1,1,1,2-Tetrachloroethane	26	U
764-71-0	cis-1,4-Dichloro-2-butene	79	U
96-18-4	1,2,3-Trichloropropane	79	U
764-71-0	trans-1,4-Dichloro-2-butene	79	U
96-18-4	Ethylmethacrylate	53	U
96-12-8	1,2-Dibromo-3-chloropropane	53	U

- U- Indicates compound was analyzed but not detected. The sample quantitation limit must be corrected for dilution and for percent moisture.
- J- Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero.
- B- This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.
- E- This flag identifies compounds whose concentrations exceed the calibration range of the GC-MS instrument for the specific analysis.

Technical Data Sheet

Product: FTH-100

Extractable Organic Halides in Soil
by EPA 600/4-84-008

<u>Test</u>	<u>Detection Limit</u>	<u>Result</u>
EOH in soil	70mg/kg	<70mg/kg

Reported on dry weight basis

Technical Data Sheet

Product: FTH-100

Polynuclear Aromatic Hydrocarbons by EPA Method 625/8270C

Compound	Concentration (ug/Kg)	Flag
Acenaphthene	<100,000	U
Acenaphthylene	<100,000	U
Anthracene	<100,000	U
Benzo (a) anthracene	<100,000	U
Benzo (a) pyrene	<100,000	U
Benzo (b) fluoranthene	<100,000	U
Benzo (g,h,i) perylene	<100,000	U
Benzo (k) fluoranthene	<100,000	U
Chrysene	<100,000	U
Dibenzo (a,h) anthracene	<100,000	U
Fluoranthene	<100,000	U
Fluorene	<100,000	U
Indeno (1,2,3-cd) pyrene	<100,000	U
Naphthalene	<100,000	U
Phenanthrene	<100,000	U
Pyrene	<100,000	U

- U- Indicates compound was analyzed but not detected. The sample quantitation limit must be corrected for dilution and for percent moisture.
- J- Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero.
- B- This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.
- E- This flag identifies compounds whose concentrations exceed the calibration range of the GC-MS instrument for the specific analysis.

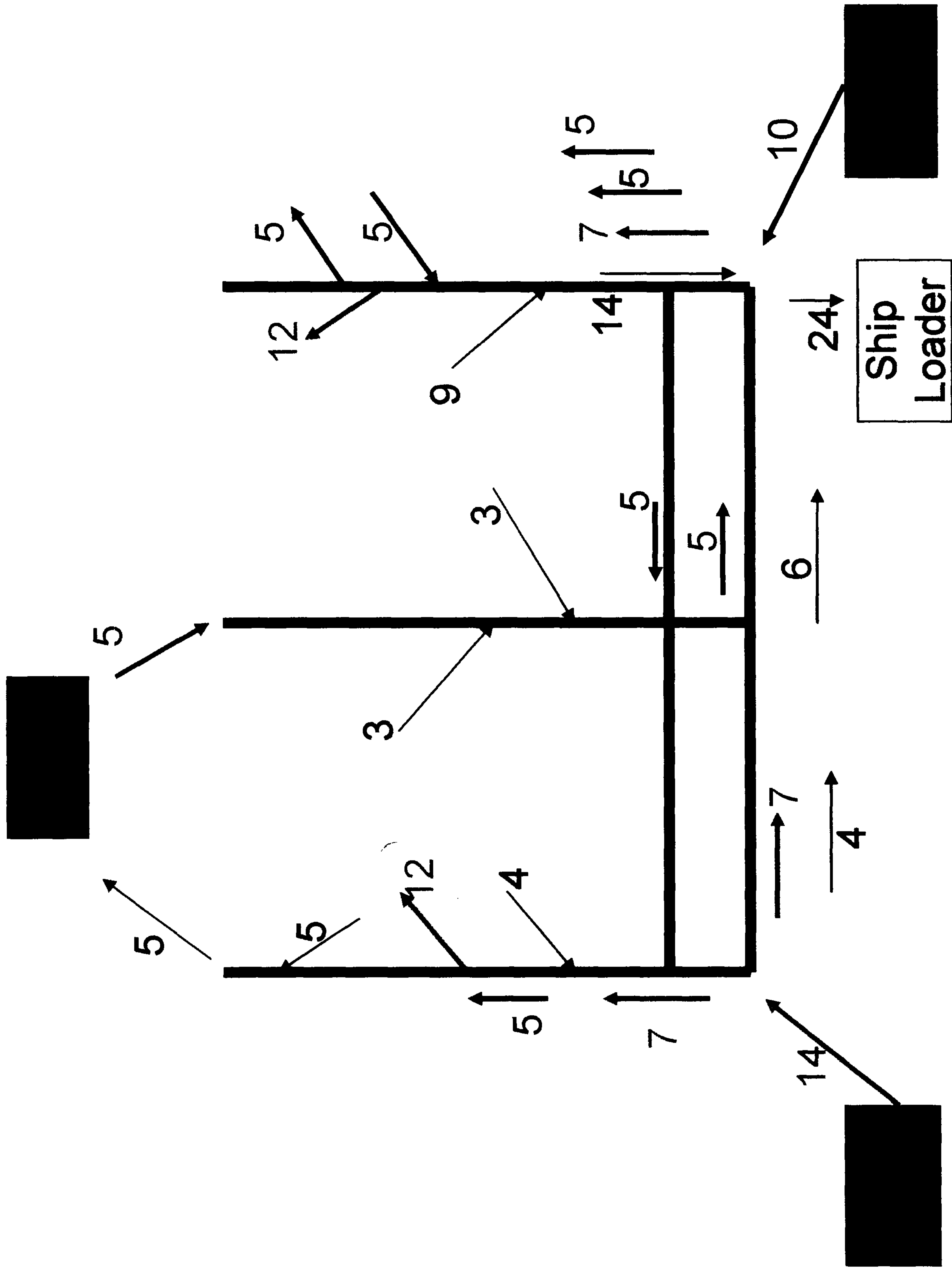
*Info. passed out at
3/11/04 meeting @ TRC,
to discuss upcoming
submittal. D. MacLean*

Issued with new permit application:

1. DTA wishes to have an Air Permit to Operate with the following:
 - a. 24,000,000 tons/year throughput of all coal products
 - b. 5,000,000 tons/year processing of raw coal into synfuel
 - c. 10,000,000 tons/year maximum import of raw coal via ship (remainder would be by rail)
 - d. 975,000 tons maximum average ground storage on the 101 acres of coal storage pad
2. Current permit is for:
 - a. 24,000,000 tons/year throughput
 - b. 12,264,000 tons/year processing of raw coal into synfuel
 - c. 1,400,000 tons maximum ground storage on 101 acres.
3. Application for expansion from 60 to 101 acres in 1989, used AP-42 for all computations, including the storage pile emissions. That application argued for 975,000 tons of allowable storage (as apposed to possible storage) which resulted in 9.2 tons/year TSP from the piles. The total permitted controlled emissions was 60.8 tons/year TSP.
4. The 2002 application for synfuel plant(s) took a different approach which lead to several "disconnects" with the previous permit applications:
 - a. Used 99% control efficiencies for all coal transfers regardless of the published "EPA Accepted-Control Device " efficiencies.
 - b. Used double bookkeeping on emissions from conveyers and their endpoint transfers.
 - c. Used a DEQ spreadsheet (JOKE) to compute maximum controlled emissions from the facility without taking into account that:
 - i. JOKE was developed by DEQ (AQCB) to estimate total facility emissions (not just the piles) assuming that those emissions were scaled to average coal tonnage stored. JOKE was calibrated when the facility was 60 acres and there were no synfuel operations.
 - ii. JOKE is extremely flawed when there are extended periods of freezing (> 3 days). Such periods have occurred several times over the past few years revealing this shortcoming.
 - iii. JOKE uses a "calibration" factor of 90.27 in an empirically adjusted non-linear equation relating coal pile dimensions, average weather related stress and efficiency of the implementation of the K-factor system. In the 2002 permit modification, this number was incorrectly used as the maximum emissions from coal piles only and was added to all other AP-42 derived emissions from conveyers, dumpers, stacker/reclaimers, crushers, screening, etc. This resulted in a total estimated TSP emission of 112.7 tons/year.
5. Emissions from the grab buckets are difficult to quantify. While the buckets are designed to transport the coal in a "fully enclosed" manner, there are still issues of

coal dribbling off the exterior of the bucket and the fugitive emissions from the hold of the ship due to disturbing the coal during unloading.

6. SWA recommends that AP-42 be followed for all aspects of the permitting process, as was done in the 1989 permit application. SWA recommends that the 975,000 tons allowable storage be used instead of the 1,400,000 for the reasons argued in the 1989 permit application. SWA also recommends use of updated coal moisture data provided by DTA owners. SWA also recommends that JOKE be retired as the means for DEQ assessment of DTA compliance with the terms of its permit. Instead, the record of DTA's adherence with the K-factor system and the PM-10 monitoring at 180J be used to assess compliance. SWA will provide a written critique of JOKE if requested.




Coal Handling and Storage Components

Unit Ref #	Description	Equip Code	Store(tons)	tons(hr)	ton(day)	tons(yr)	%effic	control	uncontrol
		CS-FC		700	16,800	2,500,000		99	0.1625
		CS-FC		700	16,800	2,500,000		99	0.1625
		CS-FC		700	16,800	2,500,000		99	1
		CS-FC		700	16,800	2,500,000		99	1
		CS-FC		700	16,800	2,500,000		99	1
		CS-FC		700	16,800	2,500,000		99	1
		SW-CS	350,000			24,000,000			
		SW-CS	350,000			24,000,000			
		SW-CS	350,000			24,000,000			
		SW-CS	350,000			24,000,000			
		SW-CS	40,000			5,000,000			
		SW-CS	50			2,000			
		SW-CS	20,000			5,000,000			
		SW-FE	1000	2,740	65,753	14,000,000			
		SW-FE	3800	2,740	65,753	12,000,000			
		SW-FE	4100	2,740	65,753	12,000,000			
		SW-FE	50	700	16,800	2,500,000			
		SW-FE	5	700	16,800	2,500,000			
		SW-FE	5	700	16,800	2,500,000			
		SW-FE	5	700	16,800	2,500,000			
		SW-FE	5	700	16,800	2,500,000			
		SW-FE	5	700	16,800	2,500,000			
		SW-FE	5	700	16,800	2,500,000			
		SW-FE	5	700	16,800	2,500,000			
		TC-FC		2,740	65,753	14,000,000			
		TC-BH		2,740	65,753	14,000,000			
		TC-PC		2,740	65,753	14,000,000			
		TC-PE		2,740	65,753	21,000,000			
		TC-PE		2,740	65,753	21,000,000			
		TC-PC		2,740	65,753	11,000,000			
		TC-PC		2,740	65,753	11,000,000			
		TC-PC		2,740	65,753	31,000,000			
		TC-PC		2,740	65,753	31,000,000			
		TC-BH		2,740	65,753	24,000,000			
		TC-PE		2,740	65,753	24,000,000			
		LO-FC		2,740	65,753	24,000,000			
		TC-BH		2,740	65,753	12,000,000			

Coal Handling and Storage Components

TC-BH	2,740	65,753	24,000,000	
TC-PC	2,740	65,753	11,000,000	
SL-CS	6,800	33,600	5,000,000	
TC-FC	1,400	33,600	5,000,000	
TC-FC	1,400	16,800	2,500,000	
TC-PC	0	5	2,000	
TC-FC	700	16,800	2,500,000	
TC-FC	700	16,800	2,500,000	
TC-FC	700	16,800	2,500,000	
TC-FC	700	16,800	2,500,000	
TC-FC	700	16,800	2,500,000	
TC-FC	233	5,600	833,333	
TC-FC	233	5,600	833,333	
TC-FC	233	5,600	833,333	
TC-FC	700	16,800	2,500,000	
TC-FC	0	5	2,000	
TC-FC	700	16,800	2,500,000	
SL-CS	700	16,800	2,500,000	
TC-FC	1,400	16,800	2,500,000	
TC-FC	0	5	2,000	
TC-FC	700	16,800	2,500,000	
TC-FC	700	16,800	2,500,000	
TC-FC	700	16,800	2,500,000	
TC-FC	700	16,800	2,500,000	
TC-FC	233	5,600	833,333	
TC-FC	233	5,600	833,333	
TC-FC	233	5,600	833,333	
TC-FC	700	16,800	2,500,000	
TC-PC	0	5	2,000	
TC-FC	700	16,800	2,500,000	
SL-CS	700	16,800	2,500,000	
TC-FC	1,400	33,600	5,000,000	

Coal Handling and Storage Components

	UL-FE	5,000,000	70	0.857562	2.858539
	UL-FE	5,000,000	70	0.857562	2.858539
	TC-BH	5,000,000	99	0.028585	2.858539
	TC-BH	5,000,000	99	0.028585	2.858539
	TC-PC	10,000,000	95		0
	TC-PC	10,000,000	95		0
	TC-PC	5,000,000	95		0
New PM emissions				1.772294	11.43415

See 1989 permit application

Piles
Total Storage/processing
Transfers

9.2
6.097294
50.43851
65.7358

Total PM

See trans pts

Crushers	0.013	
Transfers	0.001143415	0.00114342
Screens	0.08	0
	14,000,000	5,000,000
Silt	3.5	not used
Moisture	6.7	Based upon average moisture content as measured at DTA
Mean Wind	10.5	Based upon local weather data
k	0.74	AP-42
base	0.0032	AP-42
EF	0.001143415	AP-42

Notes: The labels used for components are based upon EPA's suggested categories of dust control and the % control values are consistent with those published as "EPA Accepted Control Device Listing"

The emission factor at transfer points is computed using equations in AP-42

The emission factors for crushers and screens were back calculated from material in permit application (2002)
.0114 and .013 and .0099 for crushers
.0249 and .08 and .0250 for screens
.0014 for conveyers/transfer points

Transfer Points

Trans Pt	fresh rail	synfuel	fresh ship	reclaim fres	reclaim syn	%effic	control	uncontrol	
1 UD-FC							99 0.0399	3.99	
2 UD-FC							99 0.0399	3.99	
3 TC-FC							99 0.0798	7.98	
4 TC-BH							99 0.0798	7.98	
5 TC-PC							95 0.399	7.98	
6 TC-PC							95 0.399	7.98	
6A TC-PE			5,000,000				50 3.424269	6.84 1.429269	2.85
6B TC-PE			5,000,000				50 5.989269	6.84 1.429269	2.85
7 LO-RC			5,000,000				80 2.395708	6.84 0.571708	2.85
8							95 0.114	0	
9 TC-PE							50 1.71	0	
10 LO-RC							80 0.684	0	
11 TC-PC							95 0.313927	2.85	
12 TC-PC							95 0.342427	6.84	
12A TC-PE			5,000,000				50 4.853539	9.69 1.429269	2.85
12B TC-PE			5,000,000				50 8.847808	9.69 1.429269	2.85
13 LO-RC			5,000,000				80 3.539123	9.69 0.571708	2.85
15 TC-PC							95 0.1425	2.85	
16 SL-CS							75 0.7125	2.85	
17 LO-FC							99 0.014293	1.425	
18 TC-FC							99 0.014293	1.425	
19 UL-WS							50 0.000572	0.00114	
20 LO-PC							95 5.72E-05	0.00114	
21 TC-FC							99 1.14E-05	0.00114	
22 CS-FC							99 0.014293	1.425	
23 TC-FC							99 1.14E-05	0.00114	
24 SL-CS							95 5.72E-05	0.00114	
25 LO-FE							80 0.000229	0.00114	
26 TC-FC							99 0.014293	1.425	
27 TC-FC							99 0.014293	1.425	
28 TC-FC							99 0.014293	1.425	
29 TC-FC							99 0.014293	1.425	
30 TC-FC							99 0.014293	1.425	
31 TC-FC							99 0.014293	1.425	
32 TC-FC							99 0.014293	1.425	
33 TC-FC							99 0.004764	0.475	

Transfer Points

70 TC-FC
71 TC-FC
71A SL-CS
72 TC-FC
73 TC-PC
74 SL-CS
75 LO-FC
76 TC-PC
79 TC-PC
80 TC-PC
81 TC-BH
82 TC-PC
83 TC-PC
84 TC-BH
85 TC-PC
86 TC-PC
86A TC-PE
87 SL-FE

99 0.014293 1.425
99 1.14E-05 0.00114
75 0.000286 0.00114
99 0.014293 1.425
95 0.071463 1.425
75 0.357317 1.425
99 0.028585 2.85
95 0.142927 2.85
95 0.342213 0
95 0.342213 0
99 0.031371 0
95 0.342213 0
95 0.306482 0
99 0.068443 0
95 0.342213 0
95 0.684427 0
50 6.844269 0
80 2.737708 0

88 UL-FE 5,000,000
89 UL-FE 5,000,000
90 TC-BH 5,000,000
91 TC-BH 5,000,000
92 TC-PC 5,000,000
93 TC-PC 5,000,000
94 TC-PC 10,000,000
95 TC-PC 10,000,000
96 TC-PC 5,000,000

70 0.857562 2.85 0.857562 2.85
70 0.857562 2.85 0.857562 2.85
99 0.028585 2.85 0.028585 2.85
99 0.028585 2.85 0.028585 2.85
95 0.142927 2.85 0.142927 2.85
95 0.142927 2.85 0.142927 2.85
95 0.285854 5.7 0.285854 5.7
95 0.285854 5.7 0.285854 5.7
95 0.142927 2.85 0.142927 2.85
Total PM for new import functions = 9.633275 48.45

Total PM for all transfers

50.43851 190.396

transfers

coal ship Belt terms

0.00114 lbs/ton

0.001143415 lbs/ton

0.00114342 lbs/ton

Transfer Points

14,000,000	5,000,000	10,000,000
7,000,000	2,500,000	5,000,000
	833,333	

OCR

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

-o'

Dominion Terminal Associates PO. Box 967 A
Newport News, VA 23507
(757) 245-2275

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Afit

March 25, 2004

Virginia Department of Environmental Qualiq
5636 Southern Boulevard
Virginia Beach, VA 23462 MAR 2004

RECEIVED

Attention: Mr. Daniel B. Gaidos 21 DEOTIDEWATR
REGGaOFFICE

Dear Mr. Gaidos,

Dominion Terminal Associates (DTA) in collaboration with our consultant, Simps
on

Weather Associates (SWA), is providing for your review and comment a draft of
a permit

application for adding vessel unloading to our STATIONARY SOURCE PERMIT.

Included are the DEQ application forms and supporting spreadsheet information.
We

have also included with the application three drawings showing the schematic
arrangement of the equipment and material transfers. In this cover letter we
briefly

describe the approach taken and its rationale.

Need for a permit revision

Dominion Terminal Associates has determined that the market for coal has made
it

important to our continued success in the coal industry that we prepare to unl
oad coal

from vessels as well as from rail cars. To do so will require the installation of ship

unloading equipment at the pier. The new equipment will include:

- Two grab unloaders using state of the art, environmentally friendly technology
- Two negative pressure hoppers (.w/ baghouses) to receive the coal from the grabs
- Up to five additional conveyor belts to move coal from the ships to the storage area.

No request for additional annual throughput is being made. The coal brought in by rail

plus that brought in by vessel will not exceed the current permitted limit of 24,000,000

tons.

No request is being made for increasing the allowable annual average ground storage

from the current limit of 975,000 tons. The rationale articulated in the 1989 permit

application for expansion from 68 to 101 acres still applies:

- Better pile management through greater flexibility in locating shipments for transfer
- Lower height of piles through more acreage and better access

Reduced bulldozer traffic through better access to piles by the stacker/reclaimers.

Permit modifications requested

In 2002, DTA was issued a modified permit to build a synfuel plant to process 12,264,000 tons per year. Reconsideration of the market for synfuel has led DTA to

revise its needs downward to 5,000,000 tons per year. DTA wishes to use this permit application to have this limit lowered, in part, to offset the expected increase in allowable

emissions from the coal import activities. In fact, the vessel unloading is computed (AP-

42) to produce 10 tons PM/year while the reduced synfuel activity is computed to

remove 13 tons PM/year. Additionally, as we have not yet begun construction of the

Synfuel facility (contracts have yet to be finalized with Synfuel plant owners), we would

request an extension on our allowed time frame to begin construction.

As mentioned above, this application for a permit modification is primarily driven by the

need to have vessel unloading capabilities. State of the art equipment is planned to

minimize fugitive dust emissions within allowable limits. Panels lowered under the path

of the grab-hopper route will eliminate any coal being dropped into the river.

We would also like to point out at this time that the schematics provided, and the

equipment and transfers shown and listed are approximations based upon preliminary

engineering activity. Some modifications may be made, but we anticipate that the

information provided shows maximums.

There are several substantive changes in this permit application compared to that

prepared for the 2002 modification. Prior to the 2002 permit modification for synfuel

operations, the PM limit was 60.8 tons/year. Given that the AP-42 computation of

increased emissions from the synfuel activity was < 10 tons/year, the revised permit limit

of 112.7 tons appeared to be higher than would have been estimated. A review of the

supporting documentation that was provided along with the permit application indicated

that a value of 90.27 tons/year was introduced as the estimated pile emissions based upon

the K-factor program appended to the permit. However, that number comes from a

spreadsheet program (different than the K-factor logic required by permit) developed by

DEQ to estimate annual emissions from the facility. The value, 90.27, is an empirical

calibration factor and is not to be used as "a maximum" value for controlled emissions. It

is independent of facility size, annual storage or weather. That same end-of-year

program also was designed and calibrated when the DTA facility was 68 acres large and

applied to all fugitive emissions, not just piles. Thus the use of the 90.27 value was

doubly without merit. This current permit application reverts back to the computational

approach used in the successful 1989 permit application for expansion where p

ile

emissions were computed according to the approach outlined in AP-42.

A second substantial change in this permit modification application relates to the use of

99% control efficiency for all transfer points and processing activities in the 2002 permit

application. In our current application we assign control efficiencies that are consistent

with the published "EPA Accepted Control Device Efficiencies". While this increases the

estimates of emissions at most of the points of coal handling, the net result is a lower

annual limit for PM emissions from the terminal than is currently permitted since the

90.27 is not employed as the estimate of pile emissions only.

While DEQ Form 7 is used in this permit application, we have provided much of the required information in the form of a Microsoft Excel spreadsheet. A CD with the data is included to allow DEQ staff to manipulate the data as they see fit during their review of the application.

The net result of the recompilation of maximum controlled PM and PM IO emissions is a major reduction in the permit limits down from 112.7 tons/year to 65.7 tons/year. We

would request that you advise us of the implications of this reduction below the

100Ton/year value that triggers PSD and Title V actions. This is especially true for the

PM- IO amounts which are down from 21.9 to 11.83 tons/year. In fact these values

include fugitive emissions which may or may not be used depending upon source classification.

End of year estimates of facility emissions

All past and current permits for DTA have not included a method for estimating total

annual emissions (in tons). However, for the past 10 years or more, DTA has used a

DEQ spreadsheet tool for estimating those emissions. SWA has expressed reservations

about its use since the tool has some shortcomings:

- The tool was developed using a few (< 10) TSP monitor results during the late

80's. It was intended to estimate total emissions from the coal storage facility

based upon empirically adjusted relationships between average tonnage on the ground in 45 one-acre piles, annual weather related "stress" as measured by the

K-factor and the efficiency of the facility in adhering to the K-factor system's call

for spi-ay cycles.

- The tool was never re-calibrated for expansion in 1989 from 68 to 101 acres and

thus would exaggerate the required height of the piles if more than 975,000 tons

were to be stored (current permit allows 1,400,000 tons).

- The tool was also not recalibrated for synfuel operations. It would be very difficult to recalibrate, since you need uncontrolled emissions for an extended

period as was the case during a portion of the 1980's study period due to inoperative equipment.

- The tool does not consider annual throughput (e.g. it estimates the same emissions

for 1,000,000 tons/year as for 24,000,000 tons/year.)

During this permit modification process, we recommend retiring the DEQ spreadsheet for

estimating annual emissions and replacing it with an estimator that is based directly upon

the permit methodology of emission calculations. The proposed total annual emissions

(TAE) estimator has three terms:

- Term 1 scales to the annual throughput (TP in mega tons) and thus is related

specifically to the emissions during unloading, processing, stackout, reclaiming

and loading.

- Term 2 scales to the annual average amount of coal being stored on the ground

(GS in mega tons) and thus relates to pile size/height.

Term 3 expresses the degree to which the terminal has been faithful in adherence

(Eff,) to the K-factor requests for water spray cycles.

The suggested estimator for annual PM emissions (tons) is:

$$\text{TAE (PM)} = \{(\text{TP}/24) * 56.5 + (\text{GS}/.975) * 9.21 * (\text{Eff}/\text{Eff})\}$$

$$\text{TAE (PM I 0)} = .18 * \text{TAE (PM)}$$

The numerical values come from the AP-42 process summarized in the application

material. The Eff values are obtained as follows:

- Eff, is computed from 8 years of hourly weather data obtained from the DTA tower by simulating the K-factor system and the subsequent computation of control efficiency based upon DEQ logic used in the K-factor algorithm. Thus,

we have derived an upper limit for computed efficiency should the terminal follow the K-factor demands faithfully. That value based upon data from 1996-

2003 is 83.04%.

- Eff is computed daily by the K-factor software and is averaged for the year. Over

the past few years that value has been around the mid to high 70's. The reason for

being less than the 83% appears to be operational problems during extended freeze periods.

One aspect of this approach is less than rigorous in that the (Effr/Eff) term is applied to

both the GS activities and the TP activities. In actuality, the cannons do not affect the

dust control at the ship loader (for example). However, SWA suggests that the Eff term

be used to indicate the level of attention and performance, in general, at the DTA facility.

This assumption does act to increase the TAE over that which would result from applying

the multiplier to just the GS terms, but we suggest a preference for the overstatement

rather than a possible understatement.

For example, the TAE (PM) for 2003 would have been:

$$15.175/24 * 56.5 + .320/.975 * 9.21 * 83.04/66.2 = 19.1 \text{ tons}$$

Summary

1. Current permit is for:

a. 24,000,000 tons/year throughput

b. 12,264,000 tons/year processing of raw coal into synfuel

c. 1,400,000 tons maximum ground storage on IO 1 acres.

2. DTA wishes to have an Air Permit to Operate with the following:

a. 24,000,000 tons/year throughput of all coal products

b. 5,000,000 tons/year processing of raw coal into synfuel

c. 10,000,000 tons/year maximum unloading of raw coal from vessels

(remainder would be from railcars)

d. 975,000 tons maximum average ground storage on the IO 1 acres.

3. DTA has computed the new controlled emissions limit for PM to be 65.7 tons/year and for PM- I 0, I 1. 8 tons/year.

4 .DTA is recommending the retirement of the current DEQ end-of-year spreadsheets for estimating annual emissions. In its place, DTA offers an algorithm that is traceable to the methodology used during permitting to estimate total emissions.

G. D. Emmitt D. R. Wagoner
Senior Scientist Superintendent Engineering/Maintenance
Simpson Weather Associates, Inc. Dominion Terminal Associates
Charlottesville, Va. 22902 Newport News, VA 23607

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY - AIR PERMITS

LOCAL GOVERNING BODY CERTIFICATION FORM

Facility Name: Registration Number: 60997

Dominion Terminal Associates

Applicant's Name: Name of Contact Person at the site:

Dan Wagoner

Dominion Terminal Associates

Applicant's Mailing address: Contact Person Telephone Number:

P.O. Box 967-A 757-245-2275 ext 305

Newport News, VA 23607

Facility location (also attach map):

Pier 11, Harbor Road, Newport News, VA 23607

Facility type, and list of activities to be conducted:

Coal, coke and significant handling, storage and barge loading facility modified to

include barge unloading equipment

The applicant is in the process of completing an application for an air pollution control permit from the Virginia Department of Environmental Quality. In accordance with 10.1-1321.1. Title 10.1, Code of Virginia (1950), as amended, before such a permit application can be considered complete, the applicant must obtain a certification from the governing body of the county, city or town in which the facility is to be located that the location and operation of the facility are consistent with all applicable ordinances adopted pursuant to Chapter 22 (15.2-2200 et seq.) of Title 15.2. The undersigned requests that an authorized representative of the local governing body sign the certification below.

t:1

Applicant's Date:

signature:

The undersigned local government representative certifies to the consistency of the proposed location and operation of the facility described above with all applicable local ordinances adopted pursuant to Chapter 22 (15.2-2200 et seq.) of Title 15.2. of the Code of Virginia (1950) as amended, as follows:

(Check one block)

The proposed facility is fully consistent with all applicable local ordinances.

The proposed facility is inconsistent with applicable local ordinances; see attached information.

Signature of Date:

authorized local

government

representative:

Type or Title:

print name:

County, city
or town:

[THE LOCAL GOVERNMENT REPRESENTATIVE SHOULD FORWARD THE SIGNED CERTIFICATION T
O
THE APPROPRIATE DEQ REGIONAL OFFICE AND SEND A COPY TO THE APPLICANT.]

Page Revised April 15, 2002 i R, @ @ e" T FORM 7

LOCAL GOVERNING BODY CERTIFICATION FORM

Effective July 1, 1993, Section 10.1 -1 321.1 of the Code of Virginia specifies that:

"A. No application for a permit for a new or major modified stationary air pollution source shall be considered complete unless the applicant has provided the Director with notification from the governing body of the county, city, or town in which the source is to be located that the location and operation of the source are consistent with all ordinances adopted pursuant to Chapter 22 (99 15.2-2200 SLsee id I q.) of re 5.2.

'B. The governing body shall inform in writing the applicant and the Department of the source's compliance or noncompliance not more than 45 days from receipt by the chief executive officer, or his agent, of a request from the applicant.'

'C. Should the governing body fail to provide written notification as specified in subsection B of this section, the requirement for such notification as specified in subsection A of this section is waived

Definitions:

- Any new site (not previously designated as a stationary source) upon which one or more emissions units undergo initial construction, installation, or relocation shall be considered a New Source; a 'green field' source.
- Any existing stationary source making changes to emission units (construction, installation, modification, reconstruction, or relocation) shall be considered a Modified Source. Modified sources need only use this form if the modification is major.
- Any stationary source that emits, or has the potential to emit, 100 tons or more per year of any regulated air pollutant shall be considered a 'Major Source'. 'Regulated air pollutant' is defined in 9 VAC 5-80-1110 C.
- Any modified source, the modification of which is equivalent to the definition of a "major source", shall be considered a Major Modified Source.
- Any 'major source', the modification of which results in a 'significant' net emissions increase of any regulated pollutant, shall be considered a Major Modified Source.
- Emissions levels that are considered Significant for stationary sources located in Prevention of Significant Deterioration Areas are listed in the definition of 'significant' in 9 VAC 5-80-1710 C. Emission levels that are considered 'significant' for stationary sources located in Non-attainment Areas are listed in the definition of 'significant' in 9 VAC 5-80-2010 C.

If required, the attached form should be submitted for all applications to the appropriate officials of the county, city, or town in which your facility is to be located. (The form is not required for Operating Permits insofar as these pertain to previously existing and operating sources.)

1. Applicant: Fill out the top section of the form and sign in the center block

. Send the partially completed notification form to the local governing body by certified mail/return receipt, and keep a copy of the return receipt. A copy of the return receipt should then be submitted with the application to the appropriate DEQ regional office.

2. Local officials: You may use either this form or a certification designed by the locality. If you use this form, please fill out the bottom section of the form. The form asks you to certify that the facility is or will be consistent with all applicable local ordinances. Please check the appropriate box, sign the form and if there is inconsistency, please attach an explanation that indicates the corrective measures being taken. Then forward the form (or the certification designed by the locality) to the appropriate DEQ regional office within 45 days following receipt of the request from the applicant. (A postmark date within 45 days of receipt is sufficient.) Send a copy of the completed form to the applicant.

There are two ways for an applicant for a new or major mobile stationary air pollution source permit to comply with this requirement. (1) When a completed form is received by DEQ indicating that locality certifies that the location and operation of the proposed source are in compliance with local ordinances, then this requirement is met. (2) If the locality fails to respond in writing to the request within 45 days of receipt, then this requirement is met when the applicant provides DEQ with evidence that the locality has received the form and has failed to respond in writing within the 45-day period.

COMMONWEALTH OF VIRGINIA
Department of Environmental Quality

General information

CHECK ALL FORMS THAT APPLY AND LIST ALL ATTACHED DOCUMENTS.

MAP AND LOCALITIES LIST (information), Pages iii-vi - PAST ACTUAL ANNUAL CRITERIA POLLUTANT EMISSIONS, Page 15

CONFIDENTIAL INFORMATION, Page vii-viii -TOXIC OR HAP EMISSIONS, Page 16

FORMULA-BASED HAZARDOUS AIR POLLUTANT INFORMATION, Page ix - OTHER REGULATED EMISSIONS, Page 17

HAZARDOUS AIR POLLUTANT LIST (information), Pages xi-xii - OPERATING PERIODS, Page 18

REQUEST FOR LOCAL GOVERNMENT CERTIFICATION FORM, Page xiii
LIST ATTACHED DOCUMENTS

x- CONTENTS AND DOCUMENT CERTIFICATION, Page I

x MAP of SITE LOCATION

X_ GENERAL INFORMATION, Page 2

x FACILITY SITE PLAN

x- GENERAL INFORMATION (continued), Page 3

x PROCESS FLOW DIAGRAM/SCHEMATIC

FUEL-BURNING EQUIPMENT, Page 4

x MSDS or CPDS SHEETS

X_ PROCESSING, Page 5

x ESTIMATED EMISSIONS CALCULATIONS

- INKS, COATINGS, STAINS, AND ADHESIVES, Page 6

STACK TESTS

- INCINERATORS, Page 7

AIR MODEL DATA

- VOLATILE ORGANIC COMPOUND/PETROLEUM STORAGE TANKS, Page 8

VOLATILE ORGANIC COMPOUND/PETROLEUM STORAGE TANKS -
CONTINUED, Page 9

LOADING RACKS AND OIL-WATER SEPARATORS, Page 10

X_ STACK PARAMETERS AND FUEL DATA, Page I 1

x- AIR POLLUTION CONTROL AND MONITORING EQUIPMENT, PAGE 12

x- AIR POLLUTION CONTROL/SUPPLEMENTAL INFORMATION, PAGE 13

x- PROPOSED MAXIMUM CRITERIA POLLUTANT EMISSIONS, Page 14

Note added form sheets above; also indicate the number of copies of each form in blank provided.

DOCUMENT CERTIFICATION FORM

(see other side for instructions)

I certify under penalty of law that this document and all attachments [as noted above] were prepared under my

direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and

evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those

persons directly responsible for gathering and evaluating the information, the information submitted is, to the best of

my knowledge and belief, true, accurate, and complete. / am aware that there are significant penalties for submitting

false information, including the possibility of fine and imprisonment for knowing violations.

/ certify that / understand that the existence of a permit under [Article 6 of the Regulations] does not shield the

source from potential enforcement of any regulation of the board governing the major NSR program and does not

relieve the source of the responsibility to comply with any applicable provision of the major NSR regulations.

SIGNATURE: DATE:

NAME:

TITLE: REGISTRATION

COMPANY: NUMBER:

References: Virginia Regulations for the Control and Abatement of Air Pollution (Regulations), 9 VAC 5-20-230B and 9 VAC 5-80-1140E. See reverse of this form for instructions.

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF ENVIRONMENTAL QUALITY

DOCUMENT CERTIFICATION FORM

INSTRUCTIONS FOR USE

Various provisions of the Regulations for the Control and Abatement of Air Pollution require that certain documents submitted to the Board or the Department be signed by a responsible official with certification that the information contained in the statement is accurate to the best knowledge of the individual certifying the statement. Documents covered by this requirement include, but are not limited to, permit applications, registrations, emission statements, emission testing and monitoring reports, or compliance certifications. The certification should include the full name, title, signature, date of signature, and telephone number of the responsible official. A responsible official is defined as follows (Regulations, 9 VAC 5-20-230A.):

a. For a business entity, such as a corporation, association or cooperative, a responsible official is either:

(1) The president, secretary, treasurer, or a vice-president of the business entity in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the business entity; or

(2) A duly authorized representative of such business entity if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either (i) the facilities employ more than 250 persons or have gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars), or (ii) the authority to sign documents has been assigned or delegated to such representative in accordance with procedures of the business entity.

b. For a partnership or sole proprietorship, a responsible official is a general partner or the proprietor, respectively.

c. For a municipality, state, federal, or other public agency, a responsible official is either a principal executive officer or ranking elected official. A

principal executive officer of a federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency.

Certification is required with each application submittal, including amendments to an application

(i.e. new pages, revisions to existing pages and other amendments to application information).

Reference: Regulations, 9 VAC 5-80-1140D. Letters, phone calls, etc. are considered additional supplementary information to the certified application Submittal.

COMMONWEALTH OF VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR PERMIT APPLICATION GENERAL INFORMATION

PERSON COMPLETING FORM DATE REGISTRATION NUMBER

George D. Emmitt, Simpson Weather Associates, Inc.

REASON(S) FOR SUBMISSION:

STATE OPERATING PERMIT THIS PERMIT IS APPLIED FOR PURSUANT TO PROVISIONS OF THE
VIRGINIA ADMINISTRATIVE CODE, 9 VAC 5 Chapter 80, Article 5 (SOP)

F-INEW (Greenfield) SOLTRCE THIS PERMIT IS APPLIED FOR PURSUANT TO THE
FOLLOWING PROVISION(S) OF THE VIRGINIA ADMINISTRATIVE CODE:
MODIFICATION of a SOURCE F-x-1 9 VAC 5 Chapter 80, Art. 6 (MINOR SOURCES)

F-I 9 VAC 5 Chapter 80, Art. 8 (PSD MAJOR SOURCES)

RELOCATION of a SOLTRCE El 9 VAC 5 Chapter 80, Art. 9 (NON-ATTAINMENT MAJOR SOURCES)

F-I Non-Binding Letter of EXEMPTION

AMENDMENT to a Permit dated: Permit type: = SOP (Art. 5) = NSR (Art. 6)

Amendment Type: THIS AMENDMENT IS REQUESTED PURSUANT TO THE PROVISIONS OF:

Administrative Amendment 9 VAC 5-80-970 (SOP Adm.) 9 VAC 5-80-1270 (NSR Adm.)

Minor Amendment 9 VAC 5-80-980 (SOP Minor) 9 VAC 5-80-1280 (NSR Minor)

Significant Amendment 9 VAC 5-80-990 (SOP Sig.) 9 VAC 5-80-1290 (NSR. Sig.)

Complete Pages 1, 2, and 3 and refer to the above checked provisions for additional
information requirements. Form 7 pages may be used to satisfy those requirements.

REGISTRATION/REGISTRATION UPDATE

NOTIFICATION OF OWNERSHIP OR NAME CHANGE - EFFECTIVE DATE:
(Complete Pages 1, 2 and 3 ONLY)

OTHER (SPECIFY)

COMPANY AND DIVISION NAME:
-Dominion Terminal Associates

MAILING ADDRESS:
-P.O. Box 967-A, Newport News, VA 23607

TELEPHONE NUMBER: NUMBER OF EMPLOYEES AT SITE: PROPERTY AREA AT SITE:
757-245-2275

EXACT SOURCE LOCATION - INCLUDE NAME OF CITY (COUNTY) AND FULL STREET ADDRESS
OR DIRECTIONS:
Pier 11, Harbor Road, Newport News, VA 23607

PERSON TO CONTACT ON AIR POLLUTION MATTERS - NAME AND TITLE: PHONE NUMBER:
Dan Wagoner 757-245-2275 ext. 305
Superintendent FAX NUMBER:
Engineering/Maintenance 757-247-9729

E-MAIL ADDRESS:

dwagoner(c-D-dominionterminal.com

Please check here if you obtained this form from the DEQ website.

FOR OFFICIAL USE ONLY

COUNTY CODE: PLANT ID NUMBER: LAVLONG:

Page Revised July 8, 2003 2 FORM 7
Drr-

GENERAL INFORMATION INSTRUCTIONS

REASON FOR SUBMISSION - check the appropriate box(es) and the applicable regulation(s).

1. "STATE OPERATING PERMIT" means that you are either an existing source applying for an operating permit, or are a NEW (Greenfield) SOURCE applying for a State Operating Permit concurrently with a permit to construct and operate the NEW (Greenfield) SOURCE. State Operating Permits are normally optional, and are requested for one of the reasons stated in 9 VAC 5-80-800 C.
2. "NEW (Greenfield) SOURCE" means that you are either constructing emission units at a new facility where no facility now exists, or you are constructing emission units at a facility that previously had no emission units at the facility. The NEW (Greenfield) SOURCE is (or may be) subject to permit review requirements.
3. "MODIFICATION of a SOURCE" means that (1) you already have emission units at your facility, (2) you are making physical or operational changes to the facility, (3) those proposed changes could result in a net emission increase of a regulated pollutant (or the emission of a regulated pollutant not presently being emitted), and (4) that physical or operational change is (or may be) subject to permit review requirements.
4. "RELOCATION of a SOURCE" means that you are relocating emission units from a facility in one location to a new or existing facility in another location, and that relocation is (or may be) subject to permit review.
5. "Non-Binding Letter of EXEMPTION" means that you are applying for written confirmation that a particular change is not subject to permit review under 9 VAC 5, Chapter 80, Articles 6, 8, or 9.
6. "PERMIT AMENDMENT" means that you have an effective air permit for your source, and you need changes made to that permit that do not qualify as a "MODIFICATION of a SOURCE".
7. "REGISTRATION/REGISTRATION UPDATE" means that you are applying to register a source that is not otherwise subject to permit review under 9 VAC 5, Chapter 80, Articles 6, 8 or 9, or you are applying to update a previous registration. See 9 VAC 5-20-160 of the regulations.
8. "NOTIFICATION of OWNERSHIP OR NAME CHANGE" means that you simply notifying DEQ of the changes as required by regulation. Requests to update a permit for the change shall be made as a "PERMIT AMENDMENT" request instead of a NOTIFICATION. Include the effective date of the change in your request.
9. "OTHER (SPECIFY)" means you intend to make a change to your facility, you do not know what air permitting requirements apply, and you wish for DEQ to evaluate the change for you and determine which requirements apply. Fill out the Form 7 as completely as possible and describe in a letter what you wish to do.

The listed regulations detail the various types of air pollution permits. Please indicate which of these you believe are applicable to this application. (More than one may apply). Sections of the regulations may be downloaded from the DEQ website at <http://www.deg.state.va.us/>. Copies of the regulations are available for purchase from the West Group by calling 1-800-328-4880 (Air regulations are contained in Volume 6, Title 9 of the Virginia Administrative Code).

COMPANY AND DIVISION NAME - list the official company name and the division if applicable.

MAILING ADDRESS - list the mailing address that corresponds to the facility on this application.

TELEPHONE NUMBER - list the phone number at the facility.

NUMBER OF EMPLOYEES AT SITE - list the number of employees at the facility.

PROPERTY AREA AT SITE - list the area in acres.

EXACT SOURCE LOCATION - provide a description of the facility location indicating street address or directions to facility; provide a map pinpointing the exact source location and specify where the plant property boundaries are, if requested by the regional office; provide a plant layout with dimensions of all buildings (height, length, width) at the facility indicating all stack and emission point locations by stack or reference number, if requested.

PERSON TO CONTACT ON AIR POLLUTION MATTERS - provide the name/title of a contact person for air pollution matters.

PHONE NUMBER - provide a phone number at which DEQ staff can reach the contact person.

FAX PHONE NUMBER - provide the fax number of the contact person, if there is one.

E-MAIL ADDRESS - provide an E-mail address of the contact person, if you wish to communicate with DEQ by e-mail.

FOR OFFICIAL USE ONLY - provided for use by the DEQ regional office.
or 1-800-457-6874

Page Revised July 8, 2003 Page 2 Instructions DL) Ad_@ @ -A T FORM 7

COMMONWEALTH OF VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR PERMIT APPLICATION GENERAL INFORMATION (continued)

COMPANY NAME DATE REGISTRATION NUMBER

Dominion Terminal Associates 60997

FOR PORTABLE PLANTS:

IS THIS FACILITY DESIGNED TO BE PORTABLE? YES NO

- IF YES, IS THIS FACILITY ALREADY PERMITTED AS A PORTABLE PLANT? = YES = NO PERMIT DATE@

IF NOT PERMITTED, IS THIS AN APPLICATION TO BE PERMITTED AS A PORTABLE PLANT?
YES = NO

IF PERMITTED AS A PORTABLE FACILITY, IS THIS A NOTIFICATION OF RELOCATION? YES
NO

- DESCRIBE THE NEW LOCATION OR ADDRESS (INCLUDE A SITE MAP):

- WILL THE PORTABLE FACILITY BE CO-LOCATED WITH ANOTHER SOURCE? YES NO REG. NO
..:

- WILL THE PORTABLE FACILITY BE MODIFIED OR RECONSTRUCTED AS A RESULT OF THE RELOCATION? YES NO

- WILL THERE BE ANY NEW EMISSIONS OTHER THAN THOSE ASSOCIATED WITH THE RELOCATION? YES NO

- IS THE FACILITY SUITABLE FOR THE AREA TO WHICH IT WILL BE LOCATED? (ATTACH DOCUMENTATION.) YES NO

DESCRIBE THE PRODUCTS MANUFACTURED AND/OR SERVICES PERFORMED AT THIS FACILITY:

Coal, coke, and significant handling, storage and vessel loading facility modified to include
vessel unloading equipment

LIST THE STANDARD INDUSTRIAL CLASSIFICATION (SIC) CODE FOR THE FACILITY:

1 4 1 4 19 711 I I F I I I

PRIMARY SIC SECONDARY SICs

PLEASE LIST ALL THE FACILITIES IN VIRGINIA UNDER COMMON OWNERSHIP OR CONTROL BY THE OWNER OF THIS FACILITY:

MILESTONES: This section is to be completed if the permit application includes a new emissions unit or modification to existing operations.

MILESTONES* STARTING DATE ESTIMATED COMPLETION DATE

New equipment installation 90 - 120 days post-Approval Approx. 9 - 12 months thereafter

Modification of existing process or equipment

L Start-up dates I April, 2006 June, 2006

*For new or modified installations to be constructed in phased schedule, give construction/installation starting and completion

ite for each phase.

Page Revised July 8, 2003 Page 3 Instructions DK 1, "T FORM 7

GENERAL INFORMATION (continued) INSTRUCTIONS

COMPANY NAME - give the company name, the date completed, and the registration number assigned to the facility if applicable.

IS THE FACILITY DESIGNED TO BE PORTABLE? - 9 VAC 5-80-1 1 1 0 B defines "portable", to mean an emissions unit that is designed to have the capability of being moved from one location to another for the purpose of operating at multiple locations and storage when idle. Indications of portability include, but are not limited to, wheels, skids, carrying handles, dolly, trailer, or platform. If this facility is already permitted as a portable facility, list the date of the effective permit.

IS THIS AN APPLICATION TO BE PERMITTED AS A PORTABLE PLANT? - if the facility is designed to be portable, indicate whether or not you wish to have the permit contain specific conditions that will acknowledge this fact, so that the facility may be relocated without a new permit in accordance with 9 VAC 5-80-1320 A. 1.c.

IS THIS A NOTIFICATION OF RELOCATION OF A PORTABLE FACILITY? - 9 VAC 5-80-1320 A. 1.c allows the relocation of a properly permitted portable facility to be exempt from permitting requirements, as long as it meets certain requirements, one of which is timely notification of the relocation. This notification should be sent to the Director of the DEQ Regional Office into whose area of responsibility the facility will be relocated. The 15-day notification period begins when DEQ receives the notification. Submission of pages 1, 2, and 3 of this form 7 may be used for that notification (with "RELOCATION of a SOURCE" marked on Page 2). However, use of this form for that purpose is not required. Note that a site map and documentation of site suitability should accompany this form or whatever means of notification is used. Include the registration number of any stationary source that will be co-located with the portable facility at the new site.

Site suitability may be documented by the use of a properly certified Local Governing Body Certification Form from the locality to which the facility will be relocated, although that form is not required for this purpose. Contact the appropriate DEQ Regional Office for instructions. DEQ will make a determination of site suitability based upon regional and local requirements.

PRODUCTS MANUFACTURED/SERVICED - indicate the type of business in which this facility is engaged, listing products produced and/or services performed.

-11C CODE(S) - provide all 4-digit Standard Industrial Classification Code(s) for this facility and for the process(es). Place primary SIC in the first set of blocks.

FACILITIES UNDER COMMON OWNERSHIP - list the facilities in Virginia that are owned by the applicant company, its subsidiaries, and its parent company.

MILESTONE DATES - list all dates pertinent to this application as accurately as possible. For start-up dates, provide each relevant date as it might affect emissions, e.g., start-up of each unit, modification of each unit, imposition of or changes in permitted emissions for each unit.

PROCESS.. j, MANUFACTURING, SURFACE COATING AND DEGREASING -,JERATIONS:

COMPANY NAME Dominion Terminal Associates DATE REGISTRATION NUMBER: 60997

m

0 MAXIMUM EXPECTED FEED INPUT**

D MAXIMUM

RATED MAXIMUM EXPECTED FEED OUTPUT**

UNIT c DATE OF CAPACITY

REF. 0 PROCESS OR OPERATION EQUIPMENT MANUFACTURER, TYPE MFR. OR

NO. D NAME AND MODEL NUMBER CONST. /HR** /HR /DAY [YEAR

E I

CR-1 0 Crusher Fully-enclosed double-roll crusher 1000
700 6,850 2,500,000

CR-2 0 Crusher Fully-enclosed double-roll crusher 1000
700 6,850 2,500,000

SS-1 0 Screen Fully-enclosed double deck screen 700
700 6,850 2,500,000

SS-2 0 Screen Fully-enclosed single deck screen 700
700 6,850 2,500,000

SS-3 0 Screen Fully-enclosed double deck screen 700
700 6,850 2,500,000

SS-4 0 Screen Fully-enclosed single deck screen 700
700 6,850 2,500,000

Include flow diagram (process schematic) relating process steps and a narrative description including feed materials, product materials, reaction intermediates and by-products; attach appropriate MSDS or CPDS for raw materials used or consumed and products manufactured or handled. For modification codes see next page.

** Specify units for each operation in Tons, Pounds, Gallons, etc., as applicable. Maximum Expected Feed Input for state operating permits shall be based on historical high or attach justification.

Page Revised July 8, 2003 Pop'i m 5 FORM 7

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PROCESS.. J, MANUFACTURING, SURFACE COATING AND DEGREASING -"ERATIONS:

COMPANY NAME Dominion Terminal Associates DATE REGISTRATION NUMBER: 60997

m

0 MAXIMUM EXPECTED FEED INPUT**

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RATED MAXIMUM EXPECTED FEED OUTPUT**

UNIT c DATE OF CAPACITY

REF. 0 PROCESS OR OPERATION EQUIPMENT MANUFACTURER, TYPE MFR. OR

NO. D NAME AND MODEL NUMBER CONST. /HR** IHR /DAY /YEAR

E

OS-1 0 Open Stockpile #1 Material Storage 350,000 tons
24,000,000

OS-2 0 Open Stockpile #2 Material Storage 350,000 tons
24,000,000

OS-3 0 Open Stockpile #3 Material Storage 350,000 tons
24,000,000

OS-4 0 Open Stockpile #4 Material Storage 350,000 tons
24,000,000

OS-5 0 Open Stockpile #5 Material Storage 40,000 tons
5,000,000

OS-6 0 Open Stockpile #6 Material Storage 50 tons
2,000

OS-7 0 Open Stockpile #7 Material Storage 20,000 tons
5,000,000

Include flow diagram (process schematic) relating process steps and a narrative description including feed materials, product materials, reaction intermediates and by-products-, attach appropriate MSDS or CPDS for raw materials used or consumed and products manufactured or handled.

For modification codes see next page.

** Specify units for each operation in Tons, Pounds, Gallons, etc., as applicable. Maximum Expected Feed Input for state operating permits shall be based on historical high or attach justification.

PROCESS.- j, MANUFACTURING, SURFACE COATING AND DEGREASING, -PERATIONS:

COMPANY NAME Dominion Terminal Associates DATE REGISTRATION NUMBER: 60997

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D MAXIMUM

RATED MAXIMUM EXPECTED FEED OUTPUT**

UNIT c DATE OF CAPACITY

REF. 0 PROCESS OR OPERATION EQUIPMENT MANUFACTURER, TYPE MFR. OR

NO. D NAME AND MODEL NUMBER CONST. /HR** IHR /DAY fYEAR

E

BS-1 0 Storage Silo #1 Fully-enclosed w/baghouse 1,000 tons -
2,740 65,753 24,000,000

BS-2 0 Storage Silo #2 Fully-enclosed w/baghouse 3,800 tons
2,740 65,753 24,000,000

BS-3 0 Storage Silo #3 Fully-enclosed w/baghouse 4,1 00 tons
2,740 65,753 24,000,000

BS-4 0 Plant #1 -- Feed Bin Fully-enclosed with water/chemical solution 50 tons
700 6,850 2,500,000

BS-5 0 Plant #1 - Pugmill Bin Fully-enclosed in building 5 tons
700 6,850 2,500,000

BS-6 0 Plant #2 - Pugmill Feed Bin Fully-enclosed in building 5 tons
700 6,850 2,500,000

BS-7 0 Plant #2 - Feed Bin Full-enclosed with water/chemical solution 50tons
700 6,850 2,500,000

BS-8 0 Plant #2 - Pugmill Bin Fully-enclosed in building 5 tons
700 6,850 2,500,000

BS-9 0 Plant #2 - Pugmill Feed Bin Fully-enclosed in building 5 tons
700 6,850 2,500,000

I I -j

Include flow diagram (process schematic) relating process steps and a narrative description including feed materials, product materials, reaction intermediates and by-products; attach appropriate MSDS or CPDS for raw materials used or consumed and products manufactured or handled.

For modification codes see next page.

** Specify units for each operation in Tons, Pounds, Gallons, etc., as applicable. Maximum Expected Feed Input for state operating permits shall be based on historical high or attach justification.

PROCESS.. - j, MANUFACTURING, SURFACE COATING AND DEGREASING -.JERATIONS:

COMPANY NAME Dominion Terminal Associates DATE REGISTRATION NUMBER: 60997

m

0 MAXIMUM EXPECTED FEED INPUT**

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RATED MAXIMUM EXPECTED FEED OUTPUT**

UNIT c DATE OF CAPACITY

REF. 0 PROCESS OR OPERATION EQUIPMENT MANUFACTURER, TYPE MFR. OR

NO. D NAME AND MODEL NUMBER CONST. /HR** /HR /DAY /YEAR

E I

BC-01 0 Rotary Dump Discharge Belt Fully-enclosed belt conveyor 6800
2,740 65,753 24,000,000

BC-02 0 Silo #1 Feed Belt Fully-enclosed belt conveyor 6800
1740 65,753 24,000,000

BC-03 0 Silo #1 Discharge Belt Fully-enclosed belt conveyor 6800
2,740 65,753 24,000,000

BC-04 0 Stockpile Feed Belt Belt conveyor (yard) 6800
2,740 65,753 24,000,000

BC-05 0 CC/Coke Transfer Belt Fully-enclosed belt conveyor 6800
2,740 65,753 24,000,000

BC-06 0 CC/Coke Transfer Belt Fully-enclosed belt conveyor 6800
2,740 65,753 24,000,000

BC-07 0 *Stockpile Feed Belt Belt conveyor (yard) 6800
2,740 65,753 24,000,000

Include flow diagram (process schematic) relating process steps and an narrative description including feed materials, product materials, reaction intermediates and by-products; attach appropriate MSDS or

CPDS for raw materials used or consumed and products manufactured or handled.

For modification codes see next page.

** Specify units for each operation in Tons, Pounds, Gallons, etc., as applicable. Maximum Expected Feed Input for state operating permits shall be based on historical high or attach justification.

Page Revised March 20, 2003 Page 5 Instructions FORM 7

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PROCESS.. J, MANUFACTURING, SURFACE COATING AND DEGREASING -.JERATIONS:

COMPANY NAME Dominion Terminal Associates DATE REGISTRATION NUMBER: 60997

m MAXIMUM EXPECTED FEED INPUT-

0 MAXIMUM

D RATED MAXIMUM EXPECTED FEED OUTPUT-

UNIT c DATE OF CAPACITY

REF. 0 PROCESS OR OPERATION EQUIPMENT MANUFACTURER, TYPE MFR. OR

NO. D NAME AND MODEL NUMBER CONST. /HR** /HR /DAY [YEAR

E

BC-08 0 CC/Coke Transfer Belt Fully-enclosed belt conveyor 6800 2,740 65,753 24,000,000

BC-09 0 CC/Coke Transfer Belt Fully-enclosed belt conveyor 6800 2,740 65,753 24,000,000

BC-10 0 Loadout Belt Fully-enclosed belt conveyor 6800 2,740 65,753 24,000,000

BC-11 0 Silo Transfer Belt Fully-enclosed belt conveyor 6800 2,740 65,753 24,000,000

BC-12 0 Silo Transfer Belt Fully-enclosed belt conveyor 6800 2,740 65,753 24,000,000

BC-13 0 Stockpile Belt Belt conveyor (yard) 6800 2,740 65,753 24,000,000

Include flow diagram (process schematic) relating process steps and a narrative description including feed materials, product materials, reaction intermediates and by-products; attach appropriate MSDS or

CPDS for raw materials used or consumed and products manufactured or handled.

For modification codes see next page.

** Specify units for each operation in Tons, Pounds, Gallons, etc., as applicable. Maximum Expected Feed Input for state operating permits shall be based on historical high or attach justification.

Page Revised March 20, 2003 Page 5 Instructions FORM 7

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PROCESS, _ j, MANUFACTURING, SURFACE COATING AND DEGREASING "PERATIONS:

COMPANY NAME Dominion Terminal Associates DATE REGISTRATION NUMBER: 60997

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0 MAXIMUM EXPECTED FEED INPUT**

D MAXIMUM

RATED MAXIMUM EXPECTED FEED OUTPUT**

UNIT c DATE OF CAPACITY

REF. 0 PROCESS OR OPERATION EQUIPMENT MANUFACTURER, TYPE MFR. OR

NO. D NAME AND MODEL NUMBER CONST. /HR** /HR IDAY [YEAR

E I -

BC-14 0 Clean Coal Stockpile Feed Belt Fully-enclosed belt conveyor 6800
6800 13,700 5,000,000

BC-1 5 0 Crusher Feed Belt Fully-enclosed belt conveyor 1500
1400 13,700 5,000,000

BC-16 0 Screen Oversize Belt Fully-enclosed belt conveyor 100
0.23 5.48 2,000

BC-17 0 Plant Feed Belt Fully-enclosed belt conveyor 700
700 6,850 2,500,000

BC-18 0 Pugmill Bin Feed Belt Bully-enclosed belt conveyor 700
700 6,850 2,500,000

BC1 9 0 Pugmill Mixer Feed Belt Fully-enclosed belt conveyor 700
700 6,850 2,500,000

BC-20 0 Pug Mixer Discharge Belt Fully-enclosed belt conveyor 700
700 6,850 2,500,000

Include flow diagram (process schematic) relating process steps and a narrative description including feed materials, product materials, reaction intermediates and by-products; attach appropriate MSDS or

CPDS for raw materials used or consumed and products manufactured or handled.

For modification codes see next page.

** Specify units for each operation in Tons, Pounds, Gallons, etc., as applicable. Maximum Expected Feed Input for state operating permits shall be based on historical high or attach justification.

Page Revised March 20, 2003 Page 5 Instructions vr-'@ FORM 7

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PROCESS.. - j, MANUFACTURING, SURFACE COATING AND DEGREASING @,PERATIONS:

COMPANY NAME Dominion Terminal Associates DATE REGISTRATION NUMBER: 60997

m

0 MAXIMUM EXPECTED FEED INPUT**

D MAXIMUM

RATED MAXIMUM EXPECTED FEED OUTPUT**

UNIT c DATE OF CAPACITY

REF. 0 PROCESS OR OPERATION EQUIPMENT MANUFACTURER, TYPE MFR. OR
NO. D NAME AND MODEL NUMBER CONST. /HR** /HR /DAY [YEAR

E

BC-21 0 Spreader Belt Fully-enclosed belt conveyor 700
700 6,850 2,500,000

BC-22 0 Briquetter Discharge Belt Fully-enclosed belt conveyor 233
233 2,282 833,000

BC-23 0 Briquetter Discharge Belt Fully-enclosed belt conveyor 233

1 233 2,282 833,000

BC-24 0 Briquetter Discharge Belt Fully-enclosed belt conveyor 233
233 2,282 833,000

BC-25 0 Screen SS-2 Feed Belt Fully-enclosed belt conveyor 700
700 6,850 2,500,000

BC-26 0 Recirculating Belt Fully-enclosed belt conveyor 100
0.23 5.48 2,000

BC-27 0 Screen SS-2 Discharge Belt Fully-enclosed belt conveyor 700
700 6,850 2,500,000

Include flow diagram (process schematic) relating process steps and a narrative description including feed materials, product materials, reaction intermediates and by-products; attach appropriate MSDS or CPDS for raw materials used or consumed and products manufactured or handled.

For modification codes see next page.

** Specify units for each operation in Tons, Pounds, Gallons, etc., as applicable. Maximum Expected Feed Input for state operating permits shall be based on historical high or attach justification.

PROCESS.. - j, MANUFACTURING, SURFACE COATING AND DEGREASING - r'ERATIONS:

COMPANY NAME Dominion Terminal Associates DATE REGISTRATION NUMBER: 60997

m

0 MAXIMUM EXPECTED FEED INPUT**

D MAXIMUM

RATED MAXIMUM EXPECTED FEED OUTPUT**

UNIT c DATE OF CAPACITY

REF. 0 PROCESS OR OPERATION EQUIPMENT MANUFACTURER, TYPE MFR. OR
NO. D NAME AND MODEL NUMBER CONST. /HR** IHR IDAY [YEAR

BC-28 0 Synfuel Stacking Belt Fully-enclosed belt conveyor 700
700 6,850 2,500,000

BC-29 0 Screen SS-3 Oversize Belt Fully-enclosed belt conveyor 100
.23 5.48 2,000

BC-30 0 Plant Feed Belt Fully-enclosed belt conveyor 700
700 6,850 2,500,000

BC-31 0 Pugmill Bin Feed Belt Fully-enclosed belt conveyor 700
700 6,850 2,500,000

BC-32 0 Pugmill Mixer Feed Belt Fully-enclosed belt conveyor 700
700 6,850 2,500,000

BC-33 0 Pug Mixer Discharge Belt Fully-enclosed belt conveyor 700
700 6,850 2,500,000

BC-34 0 Spreader Belt Fully-enclosed belt conveyor 700
700 6,850 2,500,000 1

Include flow diagram (process schematic) relating process steps and a narrative description including feed materials, product materials, reaction intermediates and by-products; attach appropriate MSDS or CPDS for raw materials used or consumed and products manufactured or handled.
For modification codes see next page.

** Specify units for each operation in Tons, Pounds, Gallons, etc., as applicable. Maximum Expected Feed Input for state operating permits shall be based on historical high or attach justification.

PROCESSi-J, MANUFACTURING, SURFACE COATING AND DEGREASING -.11ERATIONS:

COMPANY NAME Dominion Terminal Associates DATE REGISTRATION NUMBER: 60997

m

0 MAXIMUM EXPECTED FEED INPUT**

D MAXIMUM

RATED MAXIMUM EXPECTED FEED OUTPUT**

UNIT c DATE OF CAPACITY

REF. 0 PROCESS OR OPERATION EQUIPMENT MANUFACTURER, TYPE MFR. OR
NO. D NAME AND MODEL NUMBER CONST. /HR** /HR /DAY NEAR

E

BC-35 0 Briquetter Discharge Belt Fully-enclosed belt conveyor 233

1 233 2,282 833,000

BC-36 0 Briquetter Discharge Belt Fully-enclosed belt conveyor 233

233 2,282 833,000

BC-37 0 Briquetter Discharge Belt Fully-enclosed belt conveyor 233 -

1 233 5,600 833,000

BC-38 0 Screen SS-4 Feed Belt Fully-enclosed belt conveyor 700

700 6,850 2,500,000

BC-39 0 Recirculating Belt Fully-enclosed belt conveyor 100

0.23 5.48 2,000

BC-40 0 Screen SS-4 Discharge Belt Fully-enclosed belt conveyor 700 -

700 6,850 2,500,000

BC-41 0 Synfuel Stacking Belt Fully-enclosed belt conveyor 700

700 6,850 2,500,000

BC-42 0 Synfuel Product Transfer Belt Fully-enclosed belt conveyor 1500

1,400 13,700 12,264,000

BC-43 0 CC/RC Transfer Belt Fully-enclosed belt conveyor 6800

2,740 65,753 24,000,000

Include flow diagram (process schematic) relating process steps and a narrative description including feed materials, product materials, reaction intermediates and by-products; attach appropriate MSDS or CPDS for raw materials used or consumed and products manufactured or handled.

For modification codes see next page.

** Specify units for each operation in Tons, Pounds, Gallons, etc., as applicable. Maximum Expected Feed Input for state operating permits shall be based on historical high or attach justification.

PROCESSi. - _; , MANUFACTURING, SURFACE COATING AND DEGREASING -, JERATIONS:

COMPANY NAME Dominion Terminal Associates DATE REGISTRATION NUMBER: 60997

m

0 MAXIMUM EXPECTED FEED INPUT**

D MAXIMUM

RATED MAXIMUM EXPECTED FEED OUTPUT**

UNIT c DATE OF CAPACITY

REF. 0 PROCESS OR OPERATION EQUIPMENT MANUFACTURER, TYPE MFR. OR

NO. D NAME AND MODEL NUMBER CONST. /HR** /HR /DAY NEAR

E I

BC-44 0 CC/RC Transfer Belt Fully-enclosed belt conveyor 6800
2,740 65,753 24,000,000

BC-45 4 BC-48 or BC-49 - BC-46 Transfer Fully-enclosed belt conveyor 6800
Belt 1,142 27,400 10,000,000

BC-46 4 BC-45 to BC-47 or BC-7 Fully-enclosed belt conveyor 6800

1 1,142 27,400 10,000,000

BC-47 4 BC-46 to BC-4 Full-enclosed belt conveyor 6800
571 13,700 5,000,000

BC-48 4 Hopper to BC-45 Enclosed with baghouse 3400

1 571 13,700 5,000,000

BC-49 4 Hopper to BC-45 Enclosed with baghouse 3400
571 13,700 5,000,000

UL-1 4 Grab Vessel Unloader Enclosed 2000

1 571 13,700 5,000,000

UL-2 4 Grab Vessel Unloader Enclosed 2000
571 13,700 5,000,000

BH-1 4 Receiving Hopper Enclosed with baghouse 3400 571 13,700 5,000,000

4 Receiving Hopper Enclosed with baghouse 3400
571 13,700 5,00

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Include flow diagram (process schematic) relating process steps and an narrative description including feed materials, product materials, reaction intermediates and by-products; attach appropriate MSDS or

CPDS for raw materials used or consumed and products manufactured or handled.

For modification codes see next page.

** Specify units for each operation in Tons, Pounds, Gations, etc., as applicable. Maximum Expected Feed Input for state operating permits shall be based on historical high or attach justification.

Page Revised March 20, 2003 Page 5 Instructions FORM 7

PROCESS OPERATIONS INSTRUCTIONS

UNIT REF. NO. - assign a unique reference number for each entry.

MODIFICATION CODE - Choose a code and insert:

- 0. - No change.
- 1. - for increase in regulated limit.
- 2. - for physical change in emissions unit.
- 3. - for changes in related equipment.
- 4. - for new emissions unit(s).
- 5. - for replacement emissions unit(s).

PROCESS OR OPERATION NAME - label each emission unit with the applicable process or operation, starting with initial step in the manufacturing process, followed by succeeding logical manufacturing steps until the process is complete.

EQUIPMENT MANUFACTURER, TYPE AND MODEL NUMBER - give the nameplate information or equivalent, one line per emission unit.

DATE OF MFR. OR CONST. - give the date that each emission unit was installed, constructed in place, or manufactured.

MAXIMUM RATED CAPACITY - maximum rated input capacity of the process or operation, in units of measure per hour.

MAXIMUM EXPECTED FEED INPUT AND OUTPUT - provide maximum amount of feed material expected to be processed (hourly, daily, and yearly) and or output as needed. Specify units. If maximum expected feed input is higher than the historical actual emissions, attach justification per 9 VAC 5-80-40.F.4.e of the Regulations.

These numbers may be used to establish air permit limits and should be consistent with calculated emissions.

AIR POLLUTION CONTROL AND MONITORING EQUIPMENT:

COMPANY NAME Dominion Terminal Associates DATE REGISTRATION NUMBER: 60997

m MONITORING

0 AIR POLLUTION CONTROL EQUIPMENT INSTRUMENTATION

D

% EFFICIENCY

C

0 TYPE SPECIFY TYPE, MEASURED

UNIT D VENT/ DEVICE (USE POLLUTANT, AND RECORDER

REF. E STACK REF. POLLUTANT/PARAMETER MANUFACTURER CODE USED

NO. NO. NO. (See instructions) AND MODEL NUMBER L) DESIGN ACTUAL

OS-1 0 Fugitive SW-Cs TSP/M-10 Open Stockpile No. 1 099 see note below see note below Existing PM-10 Monitor

OS-2 0 Fugitive SW-Cs TSP/M-10 Open Stockpile No. 2 099 as per above as per above Existing PM-10 Monitor

OS-3 0 Fugitive SW-Cs TSP/PM-10 Open Stockpile No. 3 099 as per above as per above Existing PM-10 Monitor

OS-4 0 Fugitive SW-Cs TSP/PM-10 Open Stockpile No. 4 099 as per above as per above Existing PM-10 Monitor

OS-5 0 Fugitive SW-Cs TSP/PM-10 Open Stockpile No. 5 099 as per above as per above Existing PM-10 Monitor

OS-6 0 Fugitive SW-Cs TSP/PM-10 Open Stockpile No. 6 099 as per above as per above Existing PM-10 Monitor

OS-7 0 Fugitive SW-Cs TSP/PM-10 Open Stockpile No. 7 099 as per above as per above Existing PM-10 Monitor

NOTE: See this spreadsheet entitled "Air Pollution Control and Calculated Emissions"

AIR. POLLUTION CONTROL AND MONITORING EQUIPMENT:

COMPANY NAME Dominion Terminal Associates DATE REGISTRATION NUMBER: 60997

m MONITORING

0 AIR POLLUTION CONTROL EQUIPMENT INSTRUMENTATION

D

% EFFICIENCY

C

0 TYPE SPECIFY TYPE, MEASURED

UNIT D VENT/ DEVIC (USE POLLUTANT, AND RECORDER

REF. E STACK REF. POLLUTANT/PARAMETER MANUFACTURER CODE USED

NO. NO. NO. (See instructions) AND MODEL NUMBER L) DESIGN ACTUAL

see note Existing PM-10 Monitor and Visual

CR-1 0 Source CS-FC TSP/M-110 - Opacity Double Roll Crusher 099 see note below
below Opacity Evaluation - Method 9

Existing PM-10 Monitor and Visual

CR-2 0 Source CS-FC TSP/M-110 - Opacity Double Roll Crusher 099 as per above a
s per above Opacity Evaluation - Method 9

Existing PM-10 Monitor and Visual

SS-1 0 Source CS-FC TSP/PM-1 0 - Opacity Double Deck Screen 099 as per above a
s per above Opacity Evaluation - Method 9

Existing PM-10 Monitor and Visual

SS-2 0 Source CS-FC TSP/PM-1 0 - Opacity Single Deck Screen 099 as per above a
s per above Opacity Evaluation - Method 9

Existing PM-10 Monitor and Visual

SS-3 0 Source CS-FC TSP/PM-1 0 - Opacity Double Deck Screen 099 as per above a
s per above Opacity Evaluation - Method 9

Existing PM-10 Monitor and Visual

SS-4 0 Source CS-FC TSP/PM-1 0 - Opacity Single Deck Screen 099 as per above a
s per above Opacity Evaluation - Method 9

NOTE: See xis spreadsheet entitled "Air Pollution Control and Calculated Emiss
ions"

AIR POLLU..JN CONTROL AND MONITORING EQUIPMENT:

OMPANY NAME Dominion Terminal Associates DATE REGISTRATION NUMBER: 60997

m AIR POLLUTION CONTROL EQUIPMENT MONITORING INSTRUMENTATION

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D % EFFICIENCY

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0 SPECIFY TYPE, MEASURED

UNIT D VENT/ DEVICE TYPE POLLUTANT, AND RECORDER

REF. E STACK REF. POLLUTANT/PARAMETER MANUFACTURER (USE USED

NO. NO. NO. (See instructions) AND MODEL NUMBER CODE L) DESIGN ACTUAL

Existing PM-10 Monitor and Visual

BS-1 0 Fugitive SW-FE TSP/M-1 0 - Opacity Storage Silo #1 99/1 0a see note below see note below Opacity Evaluation - Method 9

Existing PM-10 Monitor and Visual

BS-2 0 Fugitive SW-FE TSP/M-1 0 - Opacity Storage Silo #2 99/1 0a as per above as per above Opacity Evaluation - Method 9

Existing PM-10 Monitor and Visual

BS-3 0 Fugitive SW-FE TSP/PM-1 0 - Opacity Storage Silo #3 99/1 0a as per above as per above Opacity Evaluation - Method 9

Existing PM-10 Monitor and Visual

BS-4 0 Fugitive SW-FE TSP/PM-1 0 - Opacity Plant #1 - Feed Bin 99 as per above as per above Opacity Evaluation - Method 9

Existing PM-10 Monitor and Visual

BS-5 0 Fugitive SW-FE TSP/PM-1 0 - Opacity Plant #1 - Pugmill Feed Bin 99 as per above as per above Opacity Evaluation - Method 9

Existing PM-10 Monitor and Visual

BS-6 0 Fugitive SW-FE TSP/PM-1 0 - Opacity Plant #2 - Pugmill Bin 99 as per above as per above Opacity Evaluation - Method 9

Existing PM-10 Monitor and Visual

BS-7 0 Fugitive SW-FE TSP/PM-10 - Opacity Plant #2 - Feed Bin 99 as per above as per above Opacity Evaluation - Method 9

Existing PM-10 Monitor and Visual

BS-8 0 SW-FE TSP/PM-1 0 - Opacity Plant #2 - Pugmill Feed Bin 99 as per above as per above Opacity Evaluation - Method 9

Existing PM-10 Monitor and Visual

BS-9 0 Fugitive SW-FE TSP/PM-1 0 - Opacity Plant #2 - Pugmill Bin 99 as per above as per above Opacity Evaluation - Method 9

NOTE: See xls spreadsheet entitled "Air Pollution Control and Calculated Emissions"

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Page Revised July 31, 2001 1 3 FORM 7

AIR POLLU..JN CONTROL AND MONITORING EQUIPMENT:

COMPANY NAME Dominion Terminal Associates DATE REGISTRATION NUMBER: 60997

m AIR POLLUTION CONTROL EQUIPMENT MONITORING INSTRUMENTATION

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D % EFFICIENCY

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0 TYPE SPECIFY TYPE, MEASURED

UNIT D VENT/ DEVIC (US POLLUTANT, AND RECORDER

REF. E STACK REF. POLLUTANT/PARAMETER MANUFACTURER CODE USED

NO. NO. NO. (See instructions) AND MODEL NUMBER L) DESIGN ACTUAL

see note Existing PM-10 Monitor and Visual

BC-1 0 TP-03 TC-FC TSP/M-1 0 - Opacity Rotary Dumper Discharge Belt 099 see note below below Opacity Evaluation - Method 9

Existing PM-10 Monitor and Visual

BC-2 0 TP-04 TC-BH TSP/M-1 0 - Opacity Silo #1 Feed Belt 099 as per above as per above Opacity Evaluation - Method 9

Existing PM-10 Monitor and Visual

BC-3 0 TP-06 TC-PC TSP/PM-1 0 - Opacity Silo #1 Discharge Belt 099 as per above as per above Opacity by Evaluation - Method 9

Existing PM-10 Monitor and Visual

BC-4 0 TP-06A TC-PE TSP/PM-1 0 - Opacity Stockpile Feed Belt 099 as per above as per above Opacity Evaluation - Method 9

Existing PM-10 Monitor and Visual

BC-5 0 TP-12 TC-PC TSP/PM-10 - Opacity CC/Coke Transfer Belt 099 as per above as per above Opacity Evaluation - Method 9

Existing PM-10 Monitor and Visual

BC-6 0 TP-12 TC-PC TSP/PM-1 0 - Opacity CC/Coke Transfer Belt 099 as per above as per above Opacity Evaluation - Method 9

NOTE: See xls spreadsheet entitled "Air Pollution Control and Calculated Emissions"

AIR POLLtj..JN CONTROL AND MONITORING EQUIPMENT:

OMPANY NAME Dominion Terminal Associates DATE REGISTRATION NUMBER: 60997

m AIR POLLUTION CONTROL EQUIPMENT MONITORING INSTRUMENTATION

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0 TYPE SPECIFY TYPE, MEASURED

UNIT D VENT! DEVIC (USE POLLUTANT, AND RECORDER

REF. E STACK REF. POLLUTANT/PARAMETER MANUFACTURER CODE USED

NO. NO. NO. (See instructions) AND MODEL NUMBER L) DESIGN ACTUAL

see note Existing PM-10 Monitor and Visual

BC-7 0 TP-13 TC-PC TSP/M-1 0 - Opacity Stockpile Feed Belt 099 see note below
below Opacity Evaluation - Method 9

Existing PM-10 Monitor and Visual

BC-8 0 TP-81 TC-PC TSP/M-1 0 - Opacity CC/Coke Transfer Belt 099 as per above
as per above Opacity Evaluation - Method 9

Existing PM-10 Monitor and Visual

BC-9 0 TP-82 TC-BH TSP/PM-1 0 - Opacity CC/Coke Transfer Belt 099 as per above
as per above Opacity Evaluation - Method 9

Existing PM-10 Monitor and Visual

BC-10 0 TP-87 TC-PE TSP/PM-1 0 - Opacity Loadout Belt 099 as per above as per
above Opacity Evaluation-Method 9

Existing PM-10 Monitor and Visual

BC-1 1 0 TP-84 TC-BH TSP/PM-1 0 - Opacity Silo Transfer Belt 099 as per above
as per above Opacity Evaluation - Method 9

Existing PM-10 Monitor and Visual

BC-12 0 TP-86 TC-BH TSP/PM-1 0 - Opacity Silo Transfer Belt 099 as per above
as per above Opacity Evaluation - Method 9

Existing PM-10 Monitor and Visual

TP-78 TC-PC TSP/PM-1 0 - Opacity Stockpile Reversing Belt 099 Opacity Evaluati
on - Method 9

BC-1 3 0 as per above as per above

NOTE: See xls spreadsheet entitled "Air Pollution Control and Calculated Emiss
ions"

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Page Revised July 31, 2001 1 5 FORM 7

AIR POLLU..JN CONTROL AND MONITORING EQUIPMENT:

OMPANY NAME Dominion Terminal Associates DATE REGISTRATION NUMBER: 60997

m AIR POLLUTION CONTROL EQUIPMENT MONITORING INSTRUMENTATION

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D % EFFICIENCY

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0 TYPE SPECIFY TYPE, MEASURED

UNIT D VENT/ DEVICE (USE POLLUTANT, AND RECORDER

REF. E STACK REF. POLLUTANT/PARAMETER MANUFACTURER CODE USED

NO. NO. NO. (See instructions) AND MODEL NUMBER L) DESIGN ACTUAL

see note Existing PM-10 Monitor and Visual

BC-14 0 TP-1 6 SL-CS TSP/M-1 0 - Opacity Clean Coal Stockpile Feed Belt 099 s
ee note below below Opacity Evaluation - Method 9

Existing PM-1 0 Monitor and Visual

BC-15 0 TP-18 TC-FC TSP/M-1 0 - Opacity Crusher Feed Belt 099 as per above as
per above Opacity Evaluation - Method 9

Existing PM-10 Monitor and Visual

BC-16 0 TP-81 TC-FC TS P/P M- 1 0 - Opacity CC/Coke Transfer Belt 099 as per
above as per above Opacity Evaluation - Method 9

Existing PM-10 Monitor and Visual

0 TP-24 TC-PC TSP/PM-1 0 - Opacity Screen SS-1 Oversize Belt 099 as per above
as per above Opacity Evaluation-Method 9

BC-17

Existing PM-10 Monitor and Visual

BC-18 0 TP-27 TC-FC TSP/PM-1 0 - Opacity Screen SS-1 Discharge Belt 099 as pe
r above as per above Opacity Evaluation - Method 9

Existing PM-1 0 Monitor and Visual

BC-19 0 TP-28 TC-FC TSP/PM-1 0 - Opacity Pugmill Bin feed Belt 099 as per abo
ve as per above Opacity Evaluation - Method 9

Existing PM- 1 0 Monitor and Visual

BC-20 TP-30 TC-FC TSP/PM-1 0 - Opacity Pugmill Mixer Feed Belt 099 Opacity Ev
aluation - Method 9
0 bove as per above

NOTE: See.xls spreadsheet entitled "Air Pollution Control and Calculated Emiss
ions"

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Page Revised July 31, 2001 16 FORM 7

AIR POLL..JN CONTROL AND MONITORING EQUIPMENT:

OMPANY NAME Dominion Terminal Associates DATE REGISTRATION NUMBER: 60997

m AIR POLLUTION CONTROL EQUIPMENT MONITORING INSTRUMENTATION

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D % EFFICIENCY

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0 TYPE SPECIFY TYPE, MEASURED

UNIT D VENT/ DEVICE (USE POLLUTANT, AND RECORDER

REF. E STACK REF. POLLUTANTIPARAMETER MANUFACTURER CODE USED

NO. NO. NO. (See instructions) AND MODEL NUMBER L) DESIGN ACTUAL

see note Existing PM-1 0 Monitor and Visual

BC-21 0 TP-32 TC-FC TSP/M-1 0 - Opacity Pugmill Mixer Discharge Belt 099 see n
ote below below Opacity Evaluation - Method 9

TP-33- Existing PM-1 0 Monitor and Visua

BC-22 0 36-39 TC-FC TS P/M- 1 0 - Opacity Spreader Belt 099 as per above as pe
r above Opacity Evaluation - Method 9

Existing PM-10 Monitor and Visual

BC-23 0 TP-35 TC-FC TSP/PM-1 0 - Opacity Briquetter Discharge Belt 099 as per
above as per above Opacity Evaluation - Method 9

Existing PM-1 0 Monitor and Visual

BC-24 0 TP-38 TC-FC TSP/PM-10 - Opacity Briquetter Discharge Belt 099 as per a
bove as per above Opacity Evaluation-Method 9

Existing PM-1 0 Monitor and Visual

BC-25 0 TP-41 TC-FC TSP/PM-1 0 - Opacity Briquetter Discharge Belt 099 as per
above as per above Opacity Evaluation - Method 9

Existing PM-1 0 Monitor and Visual

BC-26 0 TP-42 TC-FC TSP/PM-1 0 - Opacity Screen SS-2 Feed Belt 099 as per abov
e as per above Opacity Evaluation - Method 9

NOTE: See xls spreadsheet entitled "Air Pollution Control and Calculated Emiss
ions"

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AIR POLLU..JN CONTROL AND MONITORING EQUIPMENT:

OMPANY NAME Dominion Terminal Associates DATE REGISTRATION NUMBER: 60997

m AIR POLLUTION CONTROL EQUIPMENT MONITORING INSTRUMENTATION

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0 TYPE SPECIFY TYPE, MEASURED

UNIT D VENT/ DEVICE (USE POLLUTANT, AND RECORDER

REF. E STACK REF. POLLUTANT/PARAMETER MANUFACTURER CODE USED

NO. NO. NO. (See instructions) AND MODEL NUMBER L) DESIGN ACTUAL

see note Existing PM-10 Monitor and Visual

BC-27 0 TP-43 TC-FC TSP/M-1 0 - Opacity Recirculating Belt 099 see note below
below Opacity Evaluation - Method 9

Existing PM-1 0 Monitor and Visual

BC-28 0 TP-45 TC-FC TSP/M-1 0 - Opacity Screen SS-2 Discharge Belt 099 as per
above as per above Opacity Evaluation - Method 9

Existing PM-10 Monitor and Visual

BC-29 0 TP-46 SL-CS TSP/PM-1 0 - Opacity Synfuel Stacking Belt 099 as per above
e as per above Opacity Evaluation - Method 9

Existing PM-10 Monitor and Visual

BC-30 0 TP-49 TC-FC TSP/PM-10 - Opacity Crusher Feed Belt 099 as per above as
per above Opacity Evaluation-Method 9

Existing PM-10 Monitor and Visual

BC-31 0 TP-52 TC-FC TSP/PM-1 0 - Opacity Screen SS-3 Oversize Belt 099 as per
above as per above Opacity Evaluation - Method 9

Existing PM-10 Monitor and Visual

BC-32 0 TP-55 TC-FC TSP/PM-10 - Opacity Plant Feed Belt 099 as per above as pe
r above Opacity Evaluation - Method 9

Existing PM-10 Monitor and Visual

BC-33 TP-56 TC-FC TSP/PM-10 - Opacity Pugmill Bin Feed Belt 099 Opacity Evalua
tion - Method 9

0 as per above as per above

NOTE: See xIs spreadsheet entitled "Air Pollution Control and Calculated Emiss
ions"

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AIR POLL..JN CONTROL AND MONITORING EQUIPMENT:

OMPANY NAME Dominion Terminal Associates DATE REGISTRATION NUMBER: 60997

m AIR POLLUTION CONTROL EQUIPMENT MONITORING INSTRUMENTATION

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0 TYPE SPECIFY TYPE, MEASURED

UNIT D VENT/ DEVICE (USE POLLUTANT, AND RECORDER

REF. E STACK REF. POLLUTANT/PARAMETER MANUFACTURER CODE USED

NO. NO. NO. (See instructions) AND MODEL NUMBER L) DESIGN ACTUAL

see note Existing PM-10 Monitor and Visual

BC-34 0 TP-58 TC-FC TSP/M-1 0 - Opacity Pugmill Mixer Feed Belt 099 see note b
elow below Opacity Evaluation - Method 9

Existing PM-10 Monitor and Visual

BC-35 0 TP-60 TC-FC TSP/M-1 0 - Opacity Pugmill Mixer Discharge Belt 099 as pe
r above as per above Opacity Evaluation - Method 9

TP-61 - Existing PM-10 Monitor and Visual

BC-36 0 64-67 TC-FC TSP/PM-1 0 - Opacity Spreader Belt 099 as per above as per
above Opacity Evaluation - Method 9

Existing PM-10 Monitor and Visual

BC-37 0 TP-63 TC-FC TSP/PM-1 0 - Opacity Briquetter Discharge Belt 099 as per
above as per above Opacity Evaluation-Method 9

Existing PM-10 Monitor and Visual

BC-38 0 TP-66 TC-FC TSP/PM-1 0 - Opacity Briquetter Discharge Belt 099 as per
above as per above Opacity Evaluation - Method 9

Existing PM-10 Monitor and Visual

BC-39 0 TP-69 TC-FC TSP/PM-1 0 - Opacity Silo Transfer Belt 099 as per above a
s per above Opacity Evaluation - Method 9

NOTE: See xls spreadsheet entitled "Air Pollution Control and Calculated Emiss
ions"

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AIR POLLUTION CONTROL AND MONITORING EQUIPMENT:

COMPANY NAME Dominion Terminal Associates DATE REGISTRATION NUMBER: 60997

m AIR POLLUTION CONTROL EQUIPMENT MONITORING INSTRUMENTATION

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D % EFFICIENCY

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0 TYPE SPECIFY TYPE, MEASURED

UNIT D VENT/ DEVIC (USE POLLUTANT, AND RECORDER

REF. E STACK REF. POLLUTANT/PARAMETER MANUFACTURER CODE USED

NO. NO. NO. (See instructions) AND MODEL NUMBER L) DESIGN ACTUAL

see note Existing PM-10 Monitor and Visual

BC-40 0 TP-70 TC-FC TSP/M-1 0 - Opacity Screen SS-4 Feed Belt 099 see note below below Opacity Evaluation - Method 9

Existing PM-10 Monitor and Visual

BC-41 0 TP-71 TC-PC TSP/M-110 - Opacity Recirculating Belt 099 as per above as per above Opacity Evaluation - Method 9

Existing PM-10 Monitor and Visual

BC-42 0 TP-73 TC-FC TSP/PM-1 0 - Opacity Screen SS-4 Discharge Belt 099 as per above as per above Opacity Evaluation - Method 9

Existing PM-10 Monitor and Visual

BC-43 0 TP-74 SL-CS TSP/PM-1 0 - Opacity Synfuel Stacking Belt 099 as per above as per above Opacity Evaluation-Method 9

Stockpile Loadout Transfer Existing PM-10 Monitor and Visual

BC-44 0 TP-76 TC-FC TSP/PM-1 0 - Opacity Belt 099 as per above as per above Opacity Evaluation - Method 9

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NOTE: See xls spreadsheet entitled "Air Pollution Control and Calculated Emissions"

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Page Revised July 31, 2001 20 FORM 7

AIR POLLU..jN CONTROL AND MONITORING EQUIPMENT:

OMPANY NAME Dominion Terminal Associates DATE REGISTRATION NUMBER: 60997

m AIR POLLUTION CONTROL EQUIPMENT MONITORING INSTRUMENTATION

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D % EFFICIENCY

C

0 TYPE SPECIFY TYPE, MEASURED

UNIT D VENT/ DEVICE (USE POLLUTANT, AND RECORDER

REF. E STACK REF. POLLUTANT/PARAMETER MANUFACTURER CODE USED

NO. NO. NO. (See instructions) AND MODEL NUMBER L) DESIGN ACTUAL

see note Existing PM-10 Monitor and Visual

BC-45 4 TP-94 TC-PC TSP/M- 1 0 - Opacity Coal Transfer Belt 099 see note below
below Opacity Evaluation - Method 9

Existing PM-10 Monitor and Visual

BC-46 4 TP-95 TC-PC TSP/M-1 0 - Opacity Coal Transfer Belt 099 as per above as
per above Opacity Evaluation - Method 9

Existing PM-1 0 Monitor and Visual

BC-47 4 TP-96 TC-PC TSP/PM- 1 0 - Opacity Coal Transfer Belt 099 as per above
as per above Opacity Evaluation - Method 9

Existing PM-10 Monitor and Visual

Opacity Evaluation - Method 9

BC-48 4 TP-97 TC-BH TSP/PM-10 Opacity Coal Transfer Belt 099 as per above as
per above

Existing PM-1 0 Monitor and Visual

Opacity Evaluation - Method 9

BC-49 4 TP-98 TC-BH TSP/PM-1 0 Opacity Coal Transfer Belt 099 as per above as
per above

NOTE: See xls spreadsheet entitled "Air Pollution Control and Calculated Emissions"

Code L - AIR POLLUTION CONTROL EQUIPMENT TYPE

1. Settling Chamber 9. Electrostatic Precipitator 13. ABSORBER

2. Cyclone (a) hot side (a) packed tower

3. Multicyclone (b) cold side (b) spray tower

4. Cyclone scrubber (c) high voltage (c) tray tower

5. Orifice scrubber (d) low voltage (d) venturi

6. Mechanical scrubber (e) single stage (e) other (specify)

7. Venturi scrubber (D two stage 14. ADSORBER

(a) fixed throat (g) other (specify) (a) activated carbon

(b) variable throat 10. Filter (b) molecular sieve

8. Mist eliminator (a) baghouse (c) activated alumina

(b) other (specify) (d) silica gel

1 1. Catalytic Afterburner (e) other (specify)

12. Direct Flame Afterburner 15. Condenser (specify)

99. Other (specify) water spray when needed

AIR POLLUTION CONTROL AND MONITORING EQUIPMENT INSTRUCTIONS

UNIT REF. NO. - continue assigned reference number(s) from previous page(s).

MODIFICATION CODE - Choose a code and insert:

- 0. - No change.
- 1. - for increase in regulated limit.
- 2. - for physical change in emissions unit.
- 3. - for changes in related equipment.
- 4. - for new emissions unit(s).
- 5. - for replacement emissions unit(s).

VENT/STACK NO. - assign a unique vent/stack number for each vent or stack through which the process or equipment identified by this reference number exhausts.

DEVICE REF. NO. - assign a unique pollution control device reference number(s).

POLLUTANT/PARAMETER - list all pollutants emitted from this process/equipment that are controlled and/or monitored. List all surrogate parameters of the process/equipment that are monitored (e.g. - opacity, CO₂, etc.).

Air Pollution Control Equipment:

MANUFACTURER AND MODEL - list the manufacturer and model of the control equipment associated with the pollutant listed in the preceding column.

TYPE - identify the type of control equipment by using Code L.

PERCENT EFFICIENCY - list the design and actual control efficiency for the control equipment and associated pollutant.

Monitoring Instrumentation:

MONITOR MANUFACTURER AND MODEL NUMBER - list the manufacturer and model number of the stack gas monitor used to measure emissions of the specified pollutant at this emission point. List opacity monitors in association with particulate/PM₁₀ emissions.

SPECIFY TYPE OF RECORDER TO BE USED - list the type of recorder associated with the monitor (e.g. strip chart, data logger, etc.)

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Page Revised March 15, 1996 Page 12 Instructions FORM 7

AIR POLL..JN CONTROL EQUIPMENT - SUPPLEMENTAL INFORMATION.

COMPANY NAME DATE REGISTRATION NUMBER: 60997

LIQUID LIQUID AIR- REGENERATION PRESSURE

FLOW MEDIUM CLEANING TO- METHOD CHAMBER RETENTION DROP

TYPE RATE(gpm) METHOD NUMBER NUMBER CLOTH FILTER & CYCLE TEMP. (EF) TIME (sec) (in. H2O)

DEVICE (Use (Codes OF FIELDS OF RATIO MATERIAL INLET TIME (sec) (if Codes REF. Code (Codes 4,5, 4,5,6,7, (Codes 9, SECTIONS (fpm) TEMP (Codes (Codes 3, 4,5,6,7,

NO. L) 1 6,7,13,15) 13,15) 10,13,14 (Code 9) (Codes 9,10) (Code 10) (Code 10) (EF) (Code 14) 11,12) 11,12) 10,13)

Code L - AIR POLLUTION CONTROL EQUIPMENT TYPE

1. Settling Chamber 9. Electrostatic Precipitator 13. ABSORBER
2. Cyclone (a) hot side (a) packed tower
3. Multicyclone (b) cold side (b) spray tower
4. Cyclone scrubber (c) high voltage (c) tray tower
5. Orifice scrubber (d) low voltage (d) venturi
6. Mechanical scrubber (e) single stage (e) other (specify)
7. Venturi scrubber (f) two stage 14. ADSORBER
- (a) fixed throat (g) other (specify) (a) activated carbon
- (b) variable throat 10. Filter (b) molecular sieve
8. Mist eliminator (a) baghouse (c) activated alumina
- (b) other (specify) (d) silica gel
- 1 1. Catalytic Afterburner (e) other (specify)
12. Direct Flame Afterburner 15. Condenser (specify)
99. Other (specify)

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Page Revised September 26, 2001 13 FORM 7

AIR POLLUTION CONTROL EQUIPMENT (SUPPLEMENTAL INFORMATION) INSTRUCTIONS

DEVICE REF. NO. - continue assigned reference number(s) from previous page(s)
.

TYPE - identify the type(s) of control equipment by using Code L. Code L offers a wide array of control equipment types to choose from, and many will not apply to a given situation. The other columns suggest codes to use from the Code L selection.

NOTE: For the remaining spaces, the applicable control device type numbers (see Code L) for which this information is required are listed in parentheses on the form.

LIQUID FLOW RATE - list in gallons per minute.

LIQUID MEDIUM - specify the type of liquid used in the control equipment, and the pH. For condensers, specify inlet temperatures of condensing medium (water, glycol, etc.) and inlet temperature of gas stream.

CLEANING METHOD - specify the method of cleaning the control equipment (e.g., a baghouse, No. 10a).

NUMBER OF SECTIONS/FIELDS - list the number of fields or chambers for ESPs (No. 9), or number of chambers for baghouses (No. 10).

AIR-TO-CLOTH RATIO - list in feet per minute or as specified by manufacturer (cubic feet per minute gas flow to square feet of cloth).

FILTER MATERIAL - list the type of material used for the baghouse filters.

INLET TEMP. - list the temperature at the inlet of the control equipment in degrees Fahrenheit.

REGENERATION METHOD & CYCLE TIME - list the regeneration method (steam stripping, hot air, etc.) and cycle time in seconds for adsorbers (No. 14). If regeneration is done offsite, please so state.

CHAMBER TEMP. - list the combustion temperature of afterburner chamber in degrees Fahrenheit.

RETENTION TIME - list the retention time for afterburners in seconds.

PRESSURE DROP - list the pressure drop across the control equipment in inches of water.

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BAGHOUSE AIR POLLUTION CONTROL DEVICE SHEET

BAGHOUSE NO. 1 - SURGE SILO NO. 1 (ID BS-1)

Complete a Baghouse Air Pollution Control Device Sheet for each baghouse control device.

1. Baghouse Control Device Identification Number: FE-BH

2. Manufacturer's name and model identification: Johnson Marsh Skykleen PCSB 1040 Dust Collector

3. Number of compartments in baghouse: 1

4. Number of compartments on line during normal operation and conditions: 1

5. Gas flow rate into baghouse: 8.000 ACFM Ambient and 14.7 PSIA

6. Total cloth area: 2396 sq ft

7. Operating air to cloth ratio: 7.5: 1 ft²/min

8. Filter media type: Polyester fabric

9. Stabilized static pressure drop across baghouse: 2 inches H₂O

10. Baghouse operation is:

0 Continuous 0 Automatic 0 Intermittent

1 1.. Method used to clean bags:

0 Shaker 0 Pulse jet 0 Reverse jet

12. Emission rate of particulate matter entering and exiting baghouse at maximum design operating conditions:

Entering baghouse: lb/hr and 20 grains/ACF

Exiting baghouse: lb/hr and .015 grains/ACF

13. Guaranteed minimum baghouse collection efficiency: 99 %

14. Provide a written description of the capture system (e.g. hooding and duct work arrangement), size of ductwork and hoods and air volume, capacity and operating horsepower of fan:

Ductwork 20" Dia - Fan 9200 SCFM @ 10" WC & 70,

15. Describe the method of disposal for the collected material: Baghouse is a bin vent. Material is dropped directly from the bags back to the silo.

BAGHOUSE AIR POLLUTION CONTROL DEVICE SHEET

BAGHOUSE NO. 2 - SURGE SILO NO. 2 & 3 OD BS-2 and SS-3)

Complete a Baghouse Air Pollution Control Device Sheet for each baghouse control device.

1. Baghouse Control Device Identification Number: FE-BH

2. Manufacturer's name and model identification: Johnson Marsh Skvkieen PCSB 1040 Dust Collector

3. Number of compartments in baghouse:1

4. Number of compartments online during normal operation and conditions:1

5. Gas flow rate into baghouse: 18,000 ACFM @ Ambient "Fan 14.7 PSIA

6. Total cloth area: 2396 sq ft

7. Operating air to cloth ratio: 7.5: 1 ft/min

8. Filter media type: Polyester fabric

9. Standard static pressure drop across baghouse: 2 inches H₂O

10. Baghouse operation is:

0 Continuous Automatic 0 Intermittent

11. Method used to clean bags:

0 Shaker 0 Pulse jet 0 Reverse jet

12. Estimated rate of particulate matter entering and exiting baghouse at maximum design operating

conditions:

Entering baghouse: 1 lb/hr and 20 grains/ACF

Exiting baghouse: 1 lb/hr and .015 grains/ACF

13. Guaranteed minimum baghouse collection efficiency: 99 %

14. Provide a written description of the capture system (e.g. hooding and ductwork arrangement), size

of ductwork and hoods and air volume, capacity and operating horsepower of fan:

Ductwork #501 - single fan on discharge of 2 houses: 18" dia in 1243 parallel - Fan 20,700 ACFM @ 10" WC

15. Describe the method of disposal for the collected material: Baghouse is a bin vent. Material is removed directly from the bags back to the silo.

PROPOSEL- iAXIMUM CRITERIA POLLUTANT EMISSIONS:

COMPANY NAME Dominion Terminal Associates DATE REGISTRATION NUMBER: 60997

m MAXIMUM EMISSION RATES TO ATMOSPHERE OF CRITERIA POLLUTANTS

UNIT 0 PM PM10* VOC*

REF. D S02 NOX co Pb STATE

NO. (10 gM OR (VOLATILE OPERATING BASIS OF

c (PARTICULATE SMALLER (SULFUR (NITROGEN (CARBON ORGANIC (LEAD) PERMIT ESTIMAT
E

0 MATTER) PARTICULATE DIOXIDE) OXIDES) MONOXIDE) COMPOUNDS) EMISSION (USE CODE

D MA ER) CAP M)

I E :::lb:lh,:j tons/yr lb/hr tons/yr lb/hr tons/yr lb/hr tons/yr lb/hr tons/y
r lb/hr tons/yr lb/hr tons/yr (Yes/No)

CR-1

CR-2

SS-1

SS-2

SS-3

SS-4

SEE ATTACHED.xls spreadsheet entitled "AIR POLLUTION CONTROL AND CALCULATED EM
ISSIONS"

Code M - Emission Estimate Method (provide detailed calculations including ass
umed control efficiency of control equipment to support reported values.)

1. Stack Test (include a copy of summary)
2. Material Balance (include calculations)
3. Emission Factor (identify source) and include calculations
99. Other (describe)

* PM, PM₁₀, and VOCs should also be split up by component and reported under T
OXIC OR HAZARDOUS POLLUTANTS.

PROPOSED MAXIMUM CRITERIA POLLUTANT EMISSIONS INSTRUCTIONS

UNIT REF. NO. - continue assigned reference number(s) from previous page(s).

MODIFICATION CODE - Choose a code and insert:

- 0. - No change.
- 3. - for changes in related equipment.
- 1. - for increase in regulated limit.
- 4. - for new emissions unit(s).
- 2. - for physical change in emissions unit.
- 5. - for replacement emissions unit(s).

MAXIMUM EMISSION RATES TO ATMOSPHERE OF CRITERIA POLLUTANTS - list the emission rates to the atmosphere for the pollutants indicated in pounds per hour and tons per year. Provide detailed calculations including assumed control efficiency of control equipment (if applicable) and hours used per year.

STATE OPERATING PERMIT EMISSION CAP - State "yes" or "no" as follows: "Yes" means that the applicant voluntarily requests an emission cap for the unit in question that is lower than allowable emissions for the unit; "no" means no such request is made. A "yes" answer should be accompanied by underlining the proposed emissions of the pollutant for which the cap is sought, in the tons per year column.

BASIS OF EMISSION ESTIMATES - Indicate how emissions listed have been derived by using Code M. Include all calculations.

CRITERIA POLLUTANTS are defined as follows:

Particulate Matter (PM) - any airborne finely divided solid material with an aerodynamic diameter smaller than 100 micrometers.

Carbon monoxide (CO) - colorless, odorless, tasteless gas.

Particulate (PM10) - particulate matter with an aerodynamic diameter less than or equal to 10 micrometers.

Sulfur oxides (SOx) - measured as sulfur dioxide (SO2)

Nitrogen Oxides (NOx) - all oxides of nitrogen except nitrous oxide.

Lead (Pb) - metal.

Volatile Organic Compounds (VOCs) - (see definition in 9 VAC 5-10-20.) Do not include acetone as a VOC. Do not include perchloroethylene as a VOC, but list it as a hazardous air pollutant (HAP) on the next

page. The following compounds are currently exempt from the definition of VOC (however, items 3 and 4 below are still to be reported as toxic pollutants on the next page):

1. Methane
2. Ethane
3. 1,1,1-trichloroethane (methyl chloroform)
4. Methylene chloride
5. Trichlorofluoromethane (CFC-11)
6. Dichlorodifluoromethane (CFC-12)
7. Chlorodifluoromethane (CFC-22)
8. Trifluoromethane (FC-23)
9. 1,1,2-trichlorotrifluoroethane (CFC-113)
10. 1,2-dichlorotetrafluoroethane (CFC-114)
11. Chloropentafluoroethane (CFC-115)
12. Dichlorotrifluoroethane (HCFC-123)
13. Tetrafluoroethane (HFC-134a)
14. Dichlorofluoroethane (HCFC-141b)
15. Chlorodifluoroethane (HCFC-142b)

Note: PM, PM10 and VOC emissions should also be split up by toxic component and reported as TOXIC POLLUTANTS on the next page.

PAST ACT4-- - CRITERIA POLLUTANT EMISSIONS:

COMPANY NAME DATE RE ISTRATION NUMBER: 60997

m

0 AVERAGE ACTUAL ANNUAL EMISSIONS TO ATMOSPHERE OF CRITERIA POLLUTANTS FOR THE
PERIOD: 120_ TO 20-.

D

UNIT PM PM10 voc BASIS OF

REF. C NOx co Pb ESTIMATE

NO. 0 (10 gM OR S02 (VOLATILE (USE

D (PARTICULATE SMALLER (NITROGEN (CARBON ORGANIC (LEAD) CODE M)

E MATTER) PARTICULATE (SULFUR DIOXIDE) OXIDES) MONOXIDE) COMPOUNDS)

MAT-TER)

tons/yr tons/yr tons/yr tons/yr tons/yr tons/yr tons/yr

Code M - Emission Estimate Method (provide detailed calculations including assumed control efficiency of control equipment to support reported values.)

1. Stack Test (include a copy of summary)
2. Material Balance (include calculations)
3. Emission Factor (identify source) and include calculations
99. Other (describe)

PAST ACTUAL CRITERIA POLLUTANTS EMISSIONS INSTRUCTIONS

UNIT REF. NO. - continue assigned reference number(s) from previous page(s).

MODIFICATION CODE - Choose a code and insert:

- 0. - No change.
- 3. - for changes in related equipment.
- 1. - for increase in regulated limit.
- 4. - for new emissions unit(s).
- 2. - for physical change in emissions unit.
- 5. - for replacement emissions unit(s).

AVERAGE ACTUAL EMISSIONS TO ATMOSPHERE OF CRITERIA POLLUTANTS FOR THE PERIOD - list the two-year period for which actual emissions are averaged. Emissions are to be averaged over the last 24 consecutive months, unless another 24 consecutive month period is MORE reflective of NORMAL operations. If another period is used, please attach an explanation for using the different period.

PAST ACTUAL EMISSIONS AVERAGE for EACH POLLUTANT - list the average ACTUAL annual emissions to the atmosphere for the pollutants indicated in tons per year for each emission unit with MODIFICATION CODES 1, 2, 3 or 5. Be careful to include debottlenecked emission units (MOD CODE 3). The average is calculated using actual annual emissions for the past 24 consecutive months. If there is another 24 consecutive month period that is more reflective of NORMAL operations, that period may be used with DEQ concurrence.

BASIS OF EMISSION ESTIMATES - Indicate how the emissions listed have been derived using Code M. Include all calculations.

CRITERIA POLLUTANTS are defined as follows:

Particulate Matter (PM) - any airborne finely divided solid material with an aerodynamic diameter smaller than 100 micrometers.

Carbon monoxide (CO) - colorless, odorless, tasteless gas.

Particulate (PM₁₀) - particulate matter with an aerodynamic diameter less than or equal to 10 micrometers.

Sulfur oxides (SO_x) - measured as sulfur dioxide (SO₂).

Nitrogen Oxides (NO_x) - all oxides of nitrogen except nitrous oxide.

Lead (Pb) - metal.

Volatile Organic Compounds (VOCs) - (see definition in 9 VAC 5-10-20.) Do not include acetone as a VOC. Do not include perchloroethylene as a VOC, but list it as a hazardous air pollutant (HAP) on the next page. The following compounds are currently exempt from the definition of VOC (however, items 3 and 4 below are still to be reported as toxic pollutants on the next page):

1. Methane
2. Ethane
3. 1,1,1-trichloroethane (methyl chloroform)
4. Methylene chloride
5. Trichlorofluoromethane (CFC-11)
6. Dichlorodifluoromethane (CFC-12)
7. Chlorodifluoromethane (CFC-22)
8. Trifluoromethane (FC-23)
9. 1,1,2-trichlorotrifluoroethane (CFC-113)
10. 1,2-dichlorotetrafluoroethane (CFC-114)
11. Chloropentafluoroethane (CFC-115)
12. Dichlorotrifluoroethane (HCFC-123)
13. Tetrafluoroethane (HFC-134a)
14. Dichlorofluoroethane (HCFC-141b)
15. Chlorodifluoroethane (HCFC-142b)

SOURCE 4, E TOXIC OR HAZARDOUS AIR POLLUTANT (HAP) EMISSION_ FROM THE PROPOSED FACILITY:

COMPANY NAME DATE REGISTRATION NUMBER: 60997

SOURCE-WIDE MAXIMUM EMISSION RATES TO ATMOSPHERE OF POLLUTANT (Specify pollutant)* ..TOXIC OR STATE m
HAP WAS OPERATING 0

IF CONTROLLED AS WITHOUT THE PROPOSED ALSO PERMITS BASIS OF D

PROPOSED CONTROLS REPORTED EMISSION ESTIMATES

ON PAGE 15 CAP c VENT/

TOXIC OR HAZARDOUS AS: (PM/PM₁₀) (YES/NO) (USE CODE UNIT STACK

POLLUTANT (HAP) NAME CAS# lb/hr tons/yr NOC or N/A) M) REF. NO. 0 NO.
lb/hr tons/yr D

Code M - Emission Estimate Method (provide detailed calculations including assumed control efficiency of control equipment, if applicable)

1. Stack Test (include a copy)
2. Material Balance (include calculations)
3. Emission Factor (identify)
99. Other (describe)

Toxic Pollutant means a pollutant on the designated list at the front of this application. Particulate matter and volatile organic compounds are not toxic pollutants as generic classes of substances, but individual substances within these classes may be toxic pollutants because of their toxic properties or because a TLV (tm) has been established. See the toxic pollutant listing in the front of this application. Specify which pollutants are also reported as components of PM, PM₁₀, or VOC on page 15.

SOURCE-WIDE TOXIC OR HAZARDOUS AIR POLLUTANT (HAP) EMISSIONS INSTRUCTIONS

PROPOSED FACILITY - complete this page for any new emissions or increased emissions of toxic Pollutants or HAPs resulting from the Proposed Facility (from a new plant, or from any new, modified, reconstructed, or debottlenecked processes or equipment at an existing plant. It is not necessary to list each toxic or HAP emitted from the source unless so directed by the DEQ Regional Office. Then, for each toxic pollutant listed, which is not exempt by 9 VAC 5-60-300 C.3, 4 or 5, or D, E, or F or 9 VAC 5-80-1320 F of the Regulations, list the total source-wide emissions of that pollutant. compliance is based on total toxic emissions from the source.

Reproduce these pages as necessary to provide information on the applicable to toxic and HAP pollutants.

TOXIC OR HAP POLLUTANT NAME - List each toxic or HAP for which there are new or increased emissions from any emission unit at the source, as a result of the proposed changes.

CAS NO. - list the Chemical Abstract Services (CAS) number for each listed pollutant.

MAXIMUM EMISSION RATES TO ATMOSPHERE OF TOXIC POLLUTANTS - list the source-wide emission rates to the atmosphere for all listed toxic or HAP pollutants. in pounds per hour and tons per year per pollutant. List both the controlled emission rates and the emission rates without the proposed controls. The controlled emission rates may be used to set air permit limits. Provide detailed calculations of the emission rates, using (for the proposed controlled emission rates) the proposed control efficiency of control equipment, and using the proposed limits on material, throughput and/or hours of operation per year.

Note: Any PM, PM₁₀, or VOC emissions with Toxic Pollutant components should be also be listed on this page as TOXIC POLLUTANTS.

TOXIC OR HAP ALSO REPORTED ON PAGE 15 AS: (PM/PM₁₀/VOC or N/A) - Specify which pollutants are also reported as components of PM, PM₁₀, or VOC on page 15.

STATE OPERATING PERMIT EMISSION CAP - State "yes" or "no" as follows: "Yes" means that the applicant voluntarily requests an emission cap for the unit in question that is lower than the current allowable emissions for the unit; "no" means no such request is made. A "yes" answer should be accompanied by underlining the proposed emissions of the pollutant for which the cap is sought, in the tons per year column.

BASIS OF EMISSION ESTIMATES - Use Code M to indicate how the emissions that are listed, have been derived.

UNIT REF. NO. - continue assigned reference number(s) from previous page(s). List all emission unit reference numbers that emit this toxic or HAP pollutants.

MODIFICATION CODE - Choose the appropriate code(s) and insert:

- 0. - No modification.
- 3. - for changes in related equipment.
- 1. - for increase in regulated limit.
- 4. - for new emissions unit(s).
- 2. - for physical change in emissions unit.
- 5. - for replacement emissions unit(s).

VENT/STACK NO. - list the assigned unique vent/stack number for each vent or stack through which the process or equipment identified by this reference number exhausts.

OTHER RELATED POLLUTANT EMISSIONS FROM THE PROPOSED FACILITY:

COMPANY NAME Dominion Terminal Associates DATE REGISTRATION NUMBER: 60997

MAXIMUM EMISSION RATES TO ATMOSPHERE OF POLLUTANT (Specify pollutant)*

0

WITHOUT THE PROPOSED

IF CONTROLLED AS PROPOSED CONTROLS

STATE

OPERATING BASIS OF

UNIT OTHER REGULATED PERMITS ESTIMATES

REF. E VENT/ POLLUTANT EMISSION CAP

NO. STACK NO NAME* CAS NO. lb/hr tons/yr lb/hr tons/yr (YES/NO) (USE CODE M)

UL-1 4 Source see note below see note below see note below see note below NO 3

TSP/PM₁₀

UL-2 4 Source as per above as per above as per above as per above NO 3

TSP/PM₁₀

BH-1 4 Source as per above as per above as per above as per above NO 3

TSP/PM₁₀

BH-2 4 Source as per above as per above as per above as per above NO 3

TSP/PM₁₀

BC-45 4 Source as per above as per above as per above as per above NO 3

TSP/PM₁₀

BC-46 4 Source TSP/PM₁₀ as per above as per above as per above as per above NO

3

BC-47 4 Source TSP-PM₁₀ as per above as per above as per above as per above NO

3

NOTE: See xls spreadsheet entitled "Air Pollution Control and Calculated Emissions"

Code M - Emission Estimate Method (provide detailed calculations including assumed control efficiency of control equipment, if applicable)

1. Stack Test (include a copy)
2. Material Balance (include calculations)
3. Emission Factor (identify)
99. Other (describe)

Other Regulated Pollutant means any pollutant listed in the definition of "regulated pollutants" in Article 6 (9 VAC 5-80-1 1 1 0 C) of the Regulations except for the Criteria Pollutants (PM, PM₁₀, SO₂, NO_x, CO, VOC and Pb) and the toxic/HAP pollutants listed on the toxic/HAP pollutant listing in the front of this application.

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Page Revised March 20, 2003 Page 17 FORM 7

OTHER REGULATED POLLUTANT, . i'EMISSIONS INSTRUCTIONS

PROPOSED FACILITY - complete page for emissions of "Other Regulated Pollutants" from each emission unit.

UNIT REF. NO. - continue assigned reference number(s) from previous page(s).

MODIFICATION CODE - Choose a code and insert:

0. - No modification. 3. - for changes in related equipment.

1. - for increase in regulated limit. 4. - for new emissions unit(s).

2. - for physical change in emissions unit. 5. - for replacement emissions unit(s).

VENT/STACK NO. - assign a unique vent/stack number for each vent or stack through which the process or equipment identified by this reference number exhausts.

OTHER REGULATED POLLUTANT NAME - List each "other regulated pollutant" emitted from the facility/emission units listed. "Other regulated pollutants" are those pollutants listed in the definition of "regulated pollutants in Article 6 (9 VAC 5-80-1 1 1 0 C) of the Regulations except for the Criteria Pollutants (PM, PM10, SO2, NOx, CO, VOC and Pb) and the toxic/HAP pollutants listed on the toxic/HAP pollutant listing in the front of this application.

CAS NO. - list the Chemical Abstract Services (CAS) number for each listed pollutant.

MAXIMUM EMISSION RATES TO ATMOSPHERE OF OTHER REGULATED POLLUTANTS - list the emission rates to the atmosphere for all pollutants listed in the definition of "regulated pollutants in Article 6 (9

VAC 5-80-1 1 1 0 C) of the Regulations except for the Criteria Pollutants (PM, PM10, SO2, NOx, CO, VOC and Pb) and the toxic/HAP pollutants listed on the toxic/HAP pollutant listing in the front of this application.

Give the maximum emission rates of each pollutant in pounds per hour and tons per year per reference number. List both the controlled emission rates and the emission rates without the proposed controls. . The

controlled emission rates may be used to set air permit limits. Provide detailed calculations of the emission rates, using (for the proposed controlled emission rates) the proposed control efficiency of control equipment, and using the proposed limits on material, throughput and/or hours of operation per year.

STATE OPERATING PERMIT EMISSION CAP - State "yes" or "no" as follows: "Yes" means that the applicant voluntarily requests an emission cap for the unit in question that is lower than the current allowable emissions for the unit; "no" means no such request is made. A "yes" answer should be accompanied by underlining the proposed emissions of the pollutant for which the cap is sought, in the tons per year column.

BASIS OF EMISSION ESTIMATES - Use Code M to indicate how the emissions that are listed, have been derived.

pl
UT

OPERATING PERIODS: (Optional use, to establish restriction on operating hours)
--.i

COMPANY NAME DATE REGISTRATION NUMBER: 60997

NORMAL PROCESS/EQUIPMENT OPERATING MAXIMUM EQUIPMENT/PROCESS OPERATING
PERCENT ANNUAL USE/THROUGHPUT BY SEASON SCHEDULE SCHEDULE

UNIT DECEMBER MARCH JUNE SEPTEMBER

REF. ----- ----- ----- ----- HOURS PER DAYS PER WEEKS PER HOURS PER DAYS
PER WEEKS PER

NO. FEBRUARY MAY AUGUST NOVEMBER DAY WEEK YEAR DAY WEEK YEAR

MAXIMUM FACILITY OPERATING SCHEDULE
HOURS PER DAY DAYS PER WEEK WEEKS PER YEAR

Page Revised March 15, 1996 18 FORM 7

- @ M@ FT

OPERATING PERIODS INSTRUCTIONS

UNIT REF. NO. - continue assigned reference number(s) from previous page(s).

PERCENT ANNUAL USE/THROUGHPUT BY SEASON - Give the percentage of time the process or equipment was operated (past five years), by the indicated seasons. Do the same for the proposed operation.

NORMAL PROCESS/EQUIPMENT OPERATING SCHEDULE - indicate the normal operating schedule expected for the process equipment.

MAXIMUM PROCESS/EQUIPMENT OPERATING SCHEDULE - indicate the maximum operating schedule expected for the process/equipment.

MAXIMUM FACILITY OPERATING SCHEDULE - indicate the maximum number of hours of operation for the entire facility.

-3
T

EPA CCEPTED-CONTROLDEVICEL-rING

Fugitive Dust Sources Control Device' Control Device Prefix Control Efficiency
N

UNLOADING

From Railcar or Truck Full Enclosure Vented to Baghouse UL-BH 99
From Railcar or Truck Full Enclosure UL-FE 70
From Railcar or Truck Wet Suppression with Chemical Solution UL-CS 80
From Railcar or Truck Water Spray UL-WS 50
Dump Bins FE and Water Sprays with Chemical Solution UD-FC 99
Dump Bins Full Enclosure with water sprays I UD-FW 90

CRUSHING AND SCREENING

Crushing or Screening Full Enclosure Vented to Baghouse CS-BH 99
Crushing or Screening Wet Suppression wdh Chemicals CS-CS 90
Crushing or Screening Full Enclosure with Water Spray CS-FW 90
Crushing or Screening Fufi Enck)suretWet SuppressorVChemicals CS-FC 99
Crushing or Screening FUI enclosure CS-FE 80

TRANSFER AND CONVEYING

Conveyor Transfer Poirvt Full Enclosure Vented to Baghouse TC-BH 99
Corveyor Transfer Point Full Enclosure with Water Spray TC-FW 90
Conveyor Transfer Point FE and Water Spray with Chernical Sdufion TC-FC 99
Conveyor Transfer Point PE and Water Spray with Chemical Solufion TC-PC 95
Convey or Transfer Point Full enclosure TC-FE so
Conv--jor Transfer Point Water spray TC-WS 70
Conveyor Transfer Point Partial Enclosure TC-PE 50

CLEANING

Wet Wash Operations Full Enclosure -7 V,/W-FE 100

STORAGE

Loading onto Piles Full Enclosure SL-FE 80
Loading onto Piles Telescopic ChtAe SL-TC 75
Loading onto Piles Wet Suppression with Chemical Solution SL-CS 75
Loading orito Piles Wind Guard SL-WG 50
Wind Erosion Full Enclosure SW-FE 100
Wind Erosion Wet Suppression with Chemical Solution SW-CS 99
Wind Emsion Water Spray SW-Ws 75

LOADING OUT

From Stocioles Wet Suppression with Chemical Sokition LO-CS 95
From Stockpdes Under-pile Conveyor wkh Water Sprays LO-UC 85
From Stockpiles Bucket Wheel Reclaimer LO-RC 80

LOADING

To Railcar. Barge or Truck Wet Suppression with Chemical Solubon LR-cs so
To Railcar. Barge or Truc Telescopic Chute with Water Sprays LR-TW 90

HAULROADS

Unpaved Water Truck wfh Chemical Solution HR-CS as
Unpaved Water Truck wfh Water Spray HR-WS 70

J

r- - - Coal Handling and Storage Components

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Storage Through Through Through Ctrid Eff PM ctdd PM unctrid PM1 0 ctdd PM1 0
unctdd
Unit Ref Descdption Equip Code (Ktons) Kton(hr) Kton(day) Kton(yr) % (tons/yr)
(tons/yr) (tons/yr) (tons/yr)
See Drawings CS-FC 0.700 6.849 2,500 99 0.1625 16.25 0.02925 2.925
See Drawings CS-FC 0.700 6.849 2,500 99 0.1625 16.25 0.02925 2.925
See Drawings CS-FC 0.700 6.849 2,500 99 I 100 0.18 1 8
See Drawngs CS-FC 0.700 6.849 2,500 99 1 100 0.18 1 8
See Drawings CS-FC 0.700 6.849 2,500 99 1 100 0.18 1 8
See Drawings CS-FC 0.700 6.849 2,500 99 I 100 0.18 1 8
See Drawings SW-CS 350 24,000
See Drawings SW-CS 350 24,000
See Drmmngs SW-CS 350 24,000
See DroWngs SW-CS 350 24,000
See Drvmngs SW-CS 40 5,000
See DroWngs SW-CS 0.050
See Drawings SW-CS 20 5,00
See Drawings SW-FE 1 2.740 38.356 14,000
See Dmwings SW-FE 3.8 2.740 32.877 12,000.O.M.,...,
O
See DrvMngs SW-FE 4.1 2.740 32.877 12 00 . . . . .
O
See Drawings SW-FE 0.05 0.700 6.849 2:50
See Drawings SW-FE 0.005 0.700 6.849 2,500
See DroWngs SW-FE 0.005 0.700 6.849 2,50
See Drawings SW-FE 0.005 0.700 6.849 2,500
See DrwAngs SW-FE 0.005 0.700 6.849 2,500
See Drawings SW-FE 0.005 0.700 6.849 2,500
See DrrMngs TC-FC 2.740 38.356 14,000
See Dravvings TC-BH 2.740 38.356 14,000...:-@@', "
See Drawngs TC-PC 2.740 38.356 14,000
See Drawings TC-PE 2.740 57.534 21 000 "A
See DroWngs TC-PE 2.740 57.534
See DraWngs TC-PC 2.740 30.137 11,000
See Drawings TC-PC 2.740 30.137 1 1, 000
See Drawings TC-PC 2.740 84.932 31,000
O
See Drawings TC-PC 2.740 84.932 31,00
O
See DravAngs TC-PC 2.740 65.753 24,00
See Drawings TC-BH 2.740 65.753 24,000:
See Drawings TC-PE 2.740 65.753 24,000.,

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Coal Handling and Storage Components

Storage Through Through Ctrld Eff PM ctrld PM unctrid PMIO etrld PM1
0 unctrid
Unit Ref Description Equip Code (Ktons) Kton(hr) Kton(day) Kton(yr) % (tons/yr)
) (tons/yr) (tons/yr) (tons/yr)
65.753 24,000
2.740
See Drawings LO-FC
See Drawings TC-BH 2.740 32.877 12,000
0
See Drawings TC-BH 2.740 65.753 24,00
0
See Drawings TC-PC 2.740 30.137 11,00 j
-n
See Drawings SL-CS 6.800 13.699 5,000
See Drawings TC-FC 1.400 13.699 5,000
See Drawings TC-FC 1.400 6.849 2,500
See Dmvs TC-PC 0.000 0.005 2
See Drawngs TC-FC 0.700 6.849 2,500
See Drawings TC-FC 0.700 6.849 2 500
0.-
See Drawings TC-FC 0.700 6.849 2:50
See Drawings TC-FC 0.700 6.849 2,500.....,

See DrrMngs TC-FC 0.700 6.849 2,500;-'
See DrrMngs TC-FC 0.233 2.283 833.
See DraWngs TC-FC 0.233 2.283 833
See Drawings TC-FC 0.233 2.283 8 3 3
See Drawings TC-FC 0.700 6.849 2,500
See Drawings TC-FC 0.000 0.005 2
TC-FC 0.700
See Drawings 6.849 2,500
See Drawngs SL-CS 0.700 6.849 2 500
See Drawings TC-FC 1.400 6.849 2:500
See Drvmngs TC-FC 0.000 0.005 2
See Drawings TC-FC 0.700 6.849 2,500
See DraWngr. TC-FC 0.700 6.849 2,500..
See Drowngs TC-FC 0.700 6.849 2,500
See Drrmngs TC-FC 0.700 6.849 2,500
See Drawings TC-FC 0.700 6.849 2,500
See Drawings TC-FC 0.233 2.283 833
See Dravwngs TC-FC 0.233 2.283 833.-
See DravAngs TC-FC 0.233 2.283 833
See Drawings TC-FC 0.700 6.849 215ow
See Dravvings TC-PC 0.000 0.005 2
See Drawings TC-FC 0.700 6.849 2,500
See Drawings SL-CS 0.700 6.849 2 500
See Drawings TC-FC 1.400 13.699 5 000

0 V,

Coal Handling and Storage Components

New coal handling components for import of raw coal

Storage Through Through Through Ctrld Eff PM ctrld PM unctrld PM1 0 ctrld PM1
0 unctdd

Unit Ref Descdption Equip Code (Ktons) Kton(hr) Kton(day) Kton(yr) % (tons/yo O
ons/yo oons/yr) (tons/yr)

See Dravvings UL-FE 13.699 5,000 70 0.8575616 2.8585386 0.1543611 0.514537

See Drawings UL-FE 13.699 5,000 70 0.8575616 2.8585386 0.1543611 0.514537

See Drawings TC-BH 13.699 5,000 99 0.0285854 2.8585386 0.0051454 0.514537

See Drawings TC-BH 13.699 5,000 99 0.0285854 2.8585386 0.0051454 0.514537

See Drawings TC-PC 27.397 10,000

See DraWngs TC-PC 27.397 10,000

See Drawings TC-PC 13.699 5,000

See Drawings TC BH 13.699 5,000

See Drawings TC BH 13.699 5,000

PM cm PM unctdd PMI 0 ctrld PMIO umtW

(tons/yr) (tonstyo (tonstyr) (tonstyo

Now PM & PM IO Emissions Only 1.7722939 11.434154 0.3190129 2.058148

Piles (See 1989 permit application) 9.2 92 1.656 16.56

Total Intermediate storage/processing 6.0972939 443.93415 1.0975129 79.90815

Transfers 50.495878 313.65846 9.089222 56.45852

Total PM & PM10 (tons/yr) 65.792972 849.59261 11.842735 152.9267

UKAFT

Coal Handling and Storage Components

E factors S" trans pts on 81160 2
Crushers 0.01 3 lbs/ton 0 lbs/ton
Transfer's 0.0011434 lbstton 0.0011434 lbs/ton
Screens 0.08 lbs/ton 0 lbs/ton

Throughput 14,000 Ktons 5,000 Ktons 1 0,000 Ktons

Silt 3.5 % not used
Moisture 6.7 % Based upon average moisture content as measured at DTA
Avg Wind 10.5 mph Based upon local weather data
k 0.74 AP-42
base 0.0032 AP-42
EF trans 0.0011434 lbs/ton AP-42

Notes: The labels used for components are based upon EPA's suggested categories of dust control and the
% control values are consistent with those published as "EPA Accepted Control Device Listing"

The emission factor at transfer points is computed using equations in AP-42

The emission factors for crushers and screens back calculated from material in permit application (2002)
.01 14 and .01 3 and .0099 for crushers Used .0 1 3
.0249 and .08 and .0250 for screens Used .08
.001 4 for conveyers/transfer points Used .001 14

Transfer Points

Transfer Point	Control Type	Raw Rail	Synfuel Ship	Raw reclm	Synfuel recim	Contrl Eff %	PM Ctrld	PM Unctrid	PM-new Ctrld	PM-new Unctrid	PM10 P	
(Ktons)	(Ktons)	(Ktons)	(Ktons)	(Ktons)	(Ktons)	(tons)	(tons)	(tons)	(tons)	(tons)	(tons)	
1	UD-FC	99	0.040	3.990	0.007	0.718						
2	UD-FC	99	0.040	3.990	0.007	0.718						
3	TC-FC	99	0.080	7.980	0.014	1.436						
4	TC-SH	99	0.080	7.980	0.014	1.436						
5	TC-PC	95	0.399	7.980	0.072	1.436						
6	TC-PC	95	0.399	7.980	0.072	1.436						
6A	TC-PE	5,000	50	3.424	6.840	1.429	2.85	0.616	1.231	0.257	0.513	
6B	TC-PE	5,000	50	5.989	11.970	1.429	2.85	1.078	2.155	0.257	0.513	
7	LO-RC	5,000	80	2.396	11.970	0.572	2.85	0.431	2.155	0.103	0.513	
8	0	95	0.114	2.280	0.021	0.410						
9	TC-PE	0	50	1.710	3.420	0.308	0.616					
10	LO-RC	0	80	0.684	3.420	0.123	0.616					
11	TC-PC	0	95	0.314	6.270	0.057	1.129					
12	TC-PC	95	0.342	6.840	0.062	1.231						
12A	TC-PE	5,000	50	4.854	9.690	1.429	2.85	0.874	1.744	0.257	0.513	
12B	TC-PE	5	000	50	8.848	17.670	1.429	2.85	1.593	3.181	0.257	0.513
13	LO-RC	5:000	80	3.539	17.670	0.572	2.85	0.637	3.181	0.103	0.513	
15	TC-PC	95	0.143	2.850	0.026	0.513						
16	SL-CS	75	0.713	2.850	0.128	0.513						
17	LO-FC	99	0.014	1.425	0.003	0.257						
18	TC-FC	99	0.014	1.425	0.003	0.257						
19	UL-WS	50	0.001	0.001	0.000	0.000						
20	LO-PC	95	0.000	0.001	0.000	0.000						
21	TC-FC	99	0.000	0.001	0.000	0.000						
22	CS-FC	99	0.014	1.425	0.003	0.257						
23	TC-FC	99	0.000	0.001	0.000	0.000						
24	SL-CS	95	0.000	0.001	0.000	0.000						
25	LO-CS	80	0.000	0.001	0.000	0.000						
26	TC-FC	99	0.014	1.425	0.003	0.257						
27	TC-FC	99	0.014	1.425	0.003	0.257						
28	TC-FC	99	0.014	1.425	0.003	0.257						
29	TC-FC	99	0.014	1.425	0.003	0.257						
30	TC-FC	99	0.014	1.425	0.003	0.257						
31	TC-FC	99	0.014	1.425	0.003	0.257						
32	TC-FC	UL-)	99	0.014	1.425	0.003	0.257					
33	TC-FC	"AFT	99	0.005	0.475	0.001	0.086					
34	TC-FC	99	0.005	0.475	0.001	0.086						
35	TC-FC	99	0.005	0.475	0.001	0.086						

Transfer Points

Transfer Point	Control Type	Raw Rail	Synfuel Ship	Raw reclk	Synfuel reclk	Control Eff %	PM Ctrld	PM Unctrld	PM-new Ctrld	PM-new Unctrld	PM1 Ctrld	PM1 Unctrld
36	TC-FC	99	0.005	0.475	0.001	0.086						
37	TC-FC	99	0.005	0.475	0.001	0.086						
38	TC-FC	99	0.005	0.475	0.001	0.086						
39	TC-FC	99	0.005	0.475	0.001	0.086						
40	TC-FC	99	0.005	0.475	0.001	0.086						
41	TC-FC	99	0.005	0.475	0.001	0.086						
42	TC-FC	99	0.014	1.425	0.003	0.257						
43	TC-FC	99	0.000	0.001	0.000	0.000						
43A	SL-CS	75	0.000	0.001	0.000	0.000						
44	TC-FC	99	0.014	1.425	0.003	0.257						
45	TC-PC	95	0.071	1.425	0.013	0.257						
46	SL-CS	75	0.357	1.425	0.064	0.257						
47	UL-WS	50	0.001	0.001	0.000	0.000						
48	LO-PC	95	0.071	1.425	0.013	0.257						
49	TC-FC	99	0.014	1.425	0.003	0.257						
50	CS-FC	99	0.014	1.425	0.003	0.257						
51	TC-FC	95	0.000	0.001	0.000	0.000						
52	SL-CS	75	0.000	0.001	0.000	0.000						
53	LO-CS	80	0.000	0.001	0.000	0.000						
54	TC-FC	99	0.014	1.425	0.003	0.257						
55	TCFC	99	0.014	1.425	0.003	0.257						
56	TC-FC	99	0.014	1.425	0.003	0.257						
57	TC-FC	99	0.014	1.425	0.003	0.257						
58	TC-FC	99	0.014	1.425	0.003	0.257						
59	TC-FC	99	0.014	1.425	0.003	0.257						
60	TC-FC	99	0.014	1.425	0.003	0.257						
61	TC-FC	99	0.005	0.475	0.001	0.086						
62	TC-FC	99	0.005	0.475	0.001	0.086						
63	TC-FC	99	0.005	0.475	0.001	0.086						
64	TC-FC	99	0.005	0.475	0.001	0.086						
65	TC-FC	99	0.005	0.475	0.001	0.086						
66	TC-FC	99	0.005	0.475	0.001	0.086						
67	TC-FC	99	0.005	0.475	0.001	0.086						
68	TC-FC	99	0.005	0.475	0.001	0.086						
69	TC-FC	99	0.005	0.475	0.001	0.086						
70	TC-FC	CM%	99	0.014	1.425	0.003	0.257					

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Transfer Points

Transfer Point	Control Type	Raw Rail	Synfuel Ship	Raw Recim	Synfuel Recim	Contrl Eff %	PM Ctrid	PM Unctrld	PM-new Ctrld	PM-new Unctrld	PM10
71	TC-FC	99	0.000	0.001	0.000	0.000					
71A	SL-CS	75	0.000	0.001	0.000	0.000					
72	TC-FC	99	0.014	1.425	0.003	0.257					
73	TC-PC	95	0.071	1.425	0.013	0.257					
74	SL-CS	75	0.357	1.425	0.064	0.257					
75	LO-FC	99	0.029	2.850	0.005	0.513					
76	TC-PC	95	0.143	2.850	0.026	0.513					
79	TC-PC	95	0.342	6.840	0.062	1.231					
80	TC-PC	95	0.342	6.840	0.062	1.231					
81	TC-SH	99	0.031	3.135	0.006	0.564					
82	TC-PC	95	0.342	6.840	0.062	1.231					
83	TC-PC	95	0.306	6.128	0.055	1.103					
84	TC-SH	99	0.068	6.840	0.012	1.231					
85	TC-PC	95	0.342	6.840	0.062	1.231					
86	TC-PC	95	0.684	13.680	0.123	2.462					
86A	TC-PE	50	6.844	13.680	1.232	2.462					
87	SL-FE	80	2.738	13.680	0.493	2.462					

New Pts

88	UL-FE	5,000	70	0.858	2.850	0.858	2.85	0.154	0.513	0.154	0.513
89	UL-FE	5,000	70	0.858	2.850	0.858	2.85	0.154	0.513	0.154	0.513
90	TC-BH	5,000	99	0.029	2.850	0.029	2.85	0.005	0.513	0.005	0.513
91	TC-BH	5,000	99	0.029	2.850	0.029	2.85	0.005	0.513	0.005	0.513
92	TC-PC	5,000	95	0.143	2.850	0.143	2.85	0.026	0.513	0.026	0.513
93	TC-PC	5,000	95	0.143	2.850	0.143	2.85	0.026	0.513	0.026	0.513
94	TC-PC	10,000	95	0.286	5.700	0.286	5.7	0.051	1.026	0.051	1.026
95	TC-PC	10,000	95	0.286	5.700	0.286	5.7	0.051	1.026	0.051	1.026
96	TC-PC	5,000	95	0.143	2.850	0.143	2.85	0.026	0.513	0.026	0.513
97	TC-SH	5,000	99	0.029	0.029	0.005	0.005				
98	TC-SH	5,000	99	0.029	0.029	0.005	0.005				
Totals (tonstyear) for now import,							9.690	48.45	1.744	8.721	
PM ctd PM unctrl PMI 0 ctri PMIO unctO											
Totals (tonstyear) for all transfers, c							50.496	313.66	9.089	56.459	
PM ctri PM unctd PMI 0 ctrl PM1 0 unctri											

coal ship sew=

PP trans 0.001 14 lbs/ton 0.0011 lbs/ton 0.00114 lbs/ton
 Ktons/yr: 14,000 5,000 10,000

pm,
 ,N r--,.
 7,000 2,500 5,000
 833
 un,

FUEL-BUK...4G EQUIPMENT AND STATIONARY COMBUSTION ENGINES (k-..%@,EPT INCINERATORS)
(BOILERS, TURBINES, GAS/DIESEL ENGINES, KILNS, ETC.):

COMPANYNAME DATE REGISTRATION NUMBER: 60997

m MAXIMUM MAXIMUM RATED OUTPUT APPROPRIATE TO
0 RATED SOURCE TYPE

D INPUT
HEAT

c CAPACITY

0 FOR EACH TYPE OF OUTPUT

UNIT EQUIPMENT MANUFACTURER, TYPE DATE OF D FUEL EQUIPMENT STEAM BRAKE ELECTRICAL USAGE

REF. AND MFR. OR E (MILLION TYPE OF (USE QUANTITY HORSEPOWER POWER (USE NO. MODELNUMBER CONST. BTU/HR) FUEL CODEA) (lb/hr) (BHP) (KW) CODE B)

FOR MODIFICATION CODES SEE INSTRUCTIONS ON NEXT PAGE.

Code A - Equipmen Code A (continued) Code B - Usage

BOILER TYPE: 12. Wood with Flyash Reinjection 1. Steam Production

1. Pulverized Coal - Wet Bottom 13. Wood without Flyash Reinjection 2. Drying / Curing

2. Pulverized Coal - Dry Bottom 14. Other Specify 3. Space Heating

3. Pulverized Coal - Cyclone Furnace STATIONARY ENGINE TYPE: 4. Process Heat

4. Spreader Stoker 15. Combustion Turbine 5. Food Processing

5. Chain or Travelling Grate Stoker 16. Internal Combustion Engine 6. Electrical Generation

6. Underfeed Stoker 17. Other Specify 7. Mechanical Work

7. Hand Fired Coal OTHER COMBUSTION UNITS: 99. Other

8. Oil, Tangentially Fired 18. Oven / Kiln

9. Oil, Horizontally Fired (except rotary cup) 19. Rotary Kiln

10. Gas, Tangentially Fired 18. Process Furnace

1 1. Gas, Horizontally Fired 99. Other Specify

FUEL-BURNING EQUIP,....:NT AND STATIONARY
COMBUSTION ENGINES INSTRUCTIONS

UNIT REF. NO. - assign a unique reference number for each piece of fuel burning equipment. If the facility has other equipment already registered, do not repeat those reference numbers. NOTE: Where a unit burns more than one fuel, assign a separate line for each, pegged to the unit (i.e., #1 A for oil, #1 B for the same unit burning coal, etc.).

EQUIPMENT MANUFACTURER, TYPE AND MODEL NO. - provide the nameplate information for each piece of equipment

DATE OF MFR. OR CONST. - give the date that each emission unit was installed, constructed in place, or manufactured.

MODIFICATION CODE - Choose a code and insert:

- 0. - No change.
- 1. - for increase in regulated limit.
- 2. - for physical change in emissions unit.
- 3. - for changes in related equipment.
- 4. - for new emissions unit(s).
- 5. - for replacement emissions unit(s).

MAXIMUM RATED INPUT HEAT CAPACITY FOR EACH FUEL - provide the manufacturer's maximum rated heat input in Million BTUs per hour based on the nameplate rating or maximum fuel usage.

TYPE OF FUEL - identify all the types of fuel that will be burned by each referenced piece of equipment and the corresponding data for each fuel type. If used in a process, relate this to the appropriate process.

TYPE OF EQUIPMENT - use Code A at the bottom of the page.

MAXIMUM RATED OUTPUT APPROPRIATE TO SOURCE TYPE - provide the maximum rated output capacity in units consistent with your operation. Examples: if a boiler is to be installed to generate process steam, then report pounds of steam per hour or boiler horsepower; if a turbine is to be installed to generate electricity, report kilowatts of electricity; if a diesel engine is to be installed to power a blower, report the output brake horsepower (Also known as mechanical horsepower).

USAGE - Use Code B at the bottom of the page.

COMPANY NAME DATE REGISTRATION NUMBER: 60997

NO. . NO. CODE K) (feet) (feet) (fpm) (acfm) ('F) FUEL UNITS) UNITS) UNITS) UN
ITS) SULFUR ASH

1. Unobstructed vertical discharge
2. Obstructed vertical discharge (e.g., raincap)
3. Horizontal or downward discharge (e.g., T-stack)
99. Other (specify)

STACK PARAMETERS ANU. JEL DATA INSTRUCTIONS

UNIT REF. NO. - continue the unique assigned reference number(s) from page(s) 3 through 8.

VENTISTACK NO. - one reference number may have many exhaust points. Assign a unique vent/stack number for each vent or stack through which the process or equipment identified by this unit reference number exhausts.

VENT/STACK CONFIGURATION - indicate the appropriate configuration by using Code K.

VENT/STACK HEIGHT - list the exit height (in feet) from the ground level.

EXIT DIAMETER - list the inside diameter (in feet) of the vent/stack at its exit. For rectangular vents, provide length and width (in feet) of the vent/stack at its exit.

EXIT GAS VELOCITY - list the velocity in feet per minute of the stack gas as it exits the vent/stack.

EXIT GAS VOLUME - list the volume of the flow in actual cubic feet per minute.

EXIT GAS TEMPERATURE - list the temperature in degrees Fahrenheit.

TYPE OF FUEL - identify all the types of fuel that will be burned by each referenced piece of equipment and the corresponding data for each fuel type.

MAXIMUM RATE BURNED PER HOUR - provide the maximum rated fuel input at maximum design capacity in units such as pounds, gallons or cubic feet per hour.

MAXIMUM EXPECTED AMOUNT OF FUEL BURNED PER DAY - provide the maximum amount of fuel input expected in 24 hours. Use units corresponding to fuel type (e.g. tons for solid fuels, etc.).

MAXIMUM EXPECTED AMOUNT OF FUEL BURNED PER YEAR - provide the maximum amount of fuel input expected in one year. Use units corresponding to fuel type (e.g. tons for solid fuels, etc.).

HIGHER HEATING VALUE - provide the higher heating value of the specified fuel in BTUs per unit of fuel.

MAXIMUM PERCENT SULFUR - identify the highest percent sulfur content for the fuel.

MAXIMUM PERCENT ASH - identify the highest percent ash content for the fuel.

Environmental 800 Connecticut Blvd.. East Hartford. CT 06108 (203) 289-8631
ON
..Onsultants, Inc.

October 18, 1989

Mr. Thomas N. Houck, P.E.
Dominion Terminal Associates
Harbor Road, Pier 11
P. O. Box 967-A
Newport News, Virginia 23607

Dear Tom:

Enclosed please find a permit application and supporting basis report.
This cover letter includes a verbal summary of the permit application.

Need for a Revised Permit

Dominion Terminal Associates plans an increase in the physical size of their operating area. This increase in acreage (from 68 to 101 acres) will allow for:

- 0 Better pile management through greater flexibility in locating shipments for transfer.
- * Lower height of piles through more acreage and better access.
- 0 Reduced bulldozer traffic through better access to piles by the stacker/reclaimer equipment.

While the increase in acreage can be called a physical "expansion" the actual operational changes could better be described as "debottlenecking", i.e., increasing the area of storage and pile management in order to attain a larger capability for throughput.

Permit Modifications

The present permit is based upon maximum allowable emissions, annual throughput and maximum allowable tons in storage.

Dominion Terminal Associates is requesting only one substantive change in the permit, i.e. an increase of the maximum allowable quantity of coal storage from a maximum 1 million tons on the ground to a maximum of 1.4 million tons on the ground (Specific Condition 5). As an allowable average, there will be 975,000 tons on the ground. Peak pile heights will be reduced from 75 feet to

Hartford. CT - Denver. CO - Los Angeles. CA - Somerset. NJ - Washington,
DC - Seattle. WA
A TIC Company

Dominion,.-Ter-minal Associates -2- October 18, 1989

28.4 feet because of the better pile management obtainable through increased acreage. On average, pile heights will be reduced from 28.3' (650,000 tons) to 22.5' (850,000 tons).

Due to the uncertainty in emission factors for fugitive emissions, Dominion Terminal is not asking for any change in maximum allowable emissions. The maximum emissions calculated in this permit application are 60.8 tons per year of total suspended particulate and 26.4 tons per year of particulate matter less than 10 microns in diameter.

The calculated reductions in maximum emissions from the original permit (91.4 tons per year of total suspended particulate) occur because of slight changes in the facility as-built versus the design and the use of new published emission factors, including those recommended by EPA (AP-42). These changes result in a calculation that the allowable emissions (to be compared to the original application) would be 60.8 tons per year of TSP and 26.4 tons per year of PM10.

These maximum emissions are a decrease in emissions. This is true primarily because the calculated emissions from storage pile wind erosion for the proposed maximum of 1.4 million tons stored on 101 acres are much less than the originally permitted 1 million tons on 66 acres. The reason is that lower pile heights and less disturbances of the piles result in better pile management and less wind erosion per quantity of coal stored.

The original permit application did not include -0
.-the-por, 2ane fired heaters
used to thaw coal cars prior to off loading weT@Je nqt@@ded_--@ These emission
s
are included in the attached permit applicattlion. The use of the heaters
results in only 0.004 tons per year of particulate matter emissions which are
all smaller than 10 microns.

Allowable emission changes and permit conditions are summarized in Table I.

Actual-.Emissions

.J.Dominion Terminal has been operating -at less than maximum c.apacity, in
art, because of the limited.area and, in part, because of market conditions.
. ,P
@Usin
.g the same calculation techniques, an estimate has been made of actual
-emissions for 1987, 1988 and under proposed operation. These ca'lculations a
re
not required in the pemit application, but zay be helpful in exp laining the
-expansion." Table II shows a summary of actual emissions. -The proposed
.op.e.ration-case assumes '17,500,000-tons per year throughput (a,--45% increa
se)
-which'is the forecast for improved market conditions but is still well below
.the currexit allowable throughput. of 25,000,000 tons per year. A -reduction
of
allowable 'throughput to 201,000,000 tons per.,year'.is shown in 'Table I and
reflected. in the permit -application. It is also asstimed that there will be
an
.average of 850,.000 tons stored at the facility. - The'se projected .actual
emission are still substantial'ly less than allowable.

T?C

Dominion- rerminal Associates October 18, 1989

3

The increases in expected actual emissions are not as great a percentage increase as expected from 45% greater throughput because the increased acreage will lead to better pile management. This calculation has also not taken credit for an increased and enhanced spray system, including closer spacing, whose control may be better than 90%.

TRC wishes to acknowledge the assistance and work of Dr. David Emmitt of Simpson Weather Associates who provided invaluable understanding of the terminal operations and the calculations of wind erosion from storage piles.

It is clear that the "expansion" will result in a decrease in allowable emissions and that actual emissions as calculated will not increase as much as the increased throughput would indicate and in reality may not increase.

If you or anyone else has questions about the enclosed, please call.

Sincerely,

TRC ENVIRONMENTAL CONSULTANTS, INC.

& LT. I
F. Hoflnag
Vice President
and Technical Director

GFH/wpc
Enclosures

T?C

TABLE I
SUMMARY OF ALLOWABLE EMISSIONS
DOMINION TERMINAL ASSOCIATES

Maximum	Allowable	Allowable	Allowable
Emissions	Throughput	Storage	
Tons/Year	Millions	Tons/Year	Millions-of Tons
TSP	PM10		

Original Permit 91.4 NA 25 1

Recalculated
Original Permit 60.8 26.4 25 1

Proposed Permit
Modification 51.9 22.3 20 1.4

T?C

TABLE II
SUMMARY OF ACTUAL EMISSIONS
DOMINION TERMINAL ASSOCIATES

1987 1988 Proposed

Coal Handling
Throughput 9.9 12.0 17.4
(Millions of Tons)

Emissions
TSP (tons/year) 16.6 20.0 31.0
PM10 (tons/year) 7.7 9.3 14.4

Wind Erosion from Piles
Storage (millions of tons) 0.585 0.586 0.850
Emissions
TSP (tons/year) 4.5 5.5 7.8
PM10 (tons/year) 1.6 1.9 2.7

Total
TSP (tons/year) 21.1 25.5 38.8
PM10 (tons/year) 9.3 11.2 17.1

T?C

BASIS FOR SAPCB PERMIT MODIFICATION
APPLICATION

Submitted to:

Dominion Terminal Associates
Newport News, Virginia

TRC Project Number 5974-T11

October 18, 1989

Submitted by:

John E. Yocom, P.E.
TRC Environmental Consultants, Inc.

G. David Emmitt, Ph.D.
Simpson Weather Associates, Inc.

1.0 BASIS FOR PERMIT AP@PLICATION

1.1 Applkcable References

A. AP-42 (9/88)

B. Dominion Terminal Associates, SAPCB Form 7,
Submitted July, 6, 1981.

C. TRC Environmental Consultants, "Determination of Fugitive Coal Dust
Emissions from Rotary Railcar Dumping", May 1984.

1.0 BASIS FOR PERMIT APPLICATION continued

1.2 Description of Emission Calculations

The existing facility and the proposed modification have been divided into three emission sources:

Coal Receiving Area
Coal Transfer and Storage Area
Coal Loadout Area

Note that the coal piles may be emitting while the terminal is inoperative.

1.2.1 Assumptions for Computations For Air Emissions From Dumping/ Stacking/Reclaiming Operations

- 1) Annual throughput of coal is 20,000,000 tons.
- 2) Dumping capacity - maximum 5150 TPH based on 100 tons/car and 2.3 min/2 car cycle time, average 2874 TPH based on grade change, switching and delivery delays.
- 3) Stacking capacity maximum 5900 TPH, average 2874 TPH with delays.
- 4) Reclaiming capacity 20,000 to 188,000 ton capacity ships will be loaded at a design rate of 6,500 TPH and an average rate of 3,614 TPH with delays.
- 5) Pile height of 27.8' and an average annual storage capacity of 975,000 tons has been used in pile emission calculations.

1.2.2 Control Efficiencies

The following control efficiencies are used in this application and are based on previously filed air pollution reports:

- 1) 90% control for enclosed transfers where wet suppression with surfactants is used.
- 2) 75% control for transfer using lowering chutes and for open discharges using wet suppression.
- 3) 90% control for storage piles and their maintenance using wet dust suppression.
- 4) 99% control for baghouse dust collection and surge bin hoppers.
- 5) 50% control for spray controls on bucket wheel stacker/reclaimers in the reclaiming mode.

1.0 BASIS FOR PERMIT APPLICATION continued

1.2 Description of Emission Calculations - continued

1.2.3 Equipment Transfer Tonnage Rates

Maximum Average
(TPH) (TPH)

Car Dumpers 5150 2874

Conveyer C-1 and C-2 5150 2874

Conveyer C-3 and C-5 5900 2874

Conveyer C-4 and C-7: Stacking 5900 2874

Reclaiming 6200 3614

Conveyer C-6, C-8 and C-9 6200 3614

Conveyer C-10 6500 3614

Total suspended particulate (particle) emissions from each source point or area were calculated as follows:

Annual Uncontrolled Emissions

$\text{Ton/Yr} = \text{Process Flow Rate (Ton/Yr)} \times \text{Emission Factor (lb/ton)}$

Annual Controlled Emissions

$\text{Ton/Yr} = \text{Annual Uncontrolled Emissions (Ton/Yr)} \times (100 - \text{Percent Dust Control Efficiency})/100$

1.0 BASIS FOR PERMIT APPLICATION continued

1.2 Desct@Lption of Emission Calculations - continued

1.2.4 Rotary Car Dumper (From "Determination of Fugitive Coal Dust Emissions from Rotary Railcar Dumping" TRC Envirorunental Consultants, May 1984.)

TRC emission factor (EF) for Maryland site = EFTSP 0-001 lb/ton

Aerodynamic particle size multiplier (k) for PM10 0.35 (Table 11.2.3-2, AP-42, 9/88)

$EF_{PM10} = EFTSP \times k = 0.001(0.35) = 0.00035 \text{ lb/ton}$

To account for differences in silt and moisture content between the Maryland site and DTA, the emission factors were multiplied by the following correction factor as follows:

$EF_{DTA} = EF_{MD} \times (SD/SM)/(MD/MM) 1.4$

where,

SD = Silt Content of Coal @ DTA = 6.17%

SM = Silt Content of Coal @ Md. Site = 2.16%

MD = Moisture Content of Incoming Coal @ DTA = 5.5%

MM = Moisture Content of Coal @ Md. Site = 4.46%

Silt and moisture values were determined from samples collected at DTA and the Maryland site, with the exception of MD, which was estimated from moisture data from companies supplying coal to DTA.

Emission factors were calculated as follows:

$EF_{TSP} = 0-001 \times (6.17/2.16)/(5.5/4.46)1.4$
 $= 0.00213 \text{ lb/ton}$

$EF_{PM10} = 0.00035 \times (6.17/2.16)/(5.5/4.46)1.4$
 $= 0.000746 \text{ lb/ton}$

1.0 BASIS FOR PERMIT APPLICATION continued

1.2 Description of Emission Calculations - continued

1.2.5 Transfer Points (From AP-42, 9/88)

$$EF = k \times (0.0032)(U/5)^{1-3}/(M/2)^{1.4} \text{ (lb/ton)}$$

where,

k = Aerodynamic particle size multiplier

kTSP 0.74

kP_{M10} 0.35

U = Mean wind speed = 10.7 mph (from National Climate Center Data for Norfolk, Virginia).

M = Moisture content of coal = 5.5% for incoming coal, = 6.5% for outgoing coal

Emission factors for dumping/stacking incoming coal are calculated as follows:

$$EF_{TSP} = 0.74 \times (0.0032)(10.7/5)^{1-3}/(5.5/2)^{1.4} \\ = 0.00154 \text{ lb/ton}$$

$$EF_{P_{M10}} = 0.35 \times (0.0032)(10.7/5)^{1-3}/(5.5/2)^{1.4} \\ = 0.00073 \text{ lb/ton}$$

Emission factors for reclaiming/loading outgoing coal are calculated as follows:

$$EF_{TSP} = 0.74 \times (0.0032)(10.7/5)^{1-3}/(6.5/2)^{1.4} \\ = 0.00122 \text{ lb/ton}$$

$$EF_{P_{M10}} = 0.35 \times (0.0032)(10.7/5)^{1-3}/(6.5/2)^{1-4} \\ = 0.00058 \text{ lb/ton}$$

1.0 BASIS FOR PERMIT APPLICATION continued

1.2 Description of Emission Calculations - continued

1. 2. 6' Storage Piles - Comparisons between current and proposed DTA ground storage.

1.2.6.1 Assumptions for pile emission calculations for permitted ground storage and throughput

Bulk density of coal: 60 lb/ft³ (962 kg/m³)

Angle of repose: 37°

Stackout (SO) Refresh: Entire average pile surface

Reclaim (RC) Refresh: Entire average pile surface

Bulldozing done on same day as SO or RC

Average pile base: (230 x 300) 69,000 ft²

5' Margin area/pile: 8,500 ft²

Total base area/pile: 77,500 ft²

Current Proposed

Permitted peak ground storage (tons): 1.0 x 10⁶ 1.4 x 10⁶

Permitted average ground storage (tons): 1.0 x 10⁶ .975 x 10⁶

Permitted annual throughput (tons): 25.0 x 10⁶ 20.0 x 10⁶

Average stackout tonnage: 7400 7400

Average # SO/day: 9.26 7.40

Average reclaim tonnage: 20,316 20,316

Average # of RC/day: 3.37 2.70

1.0 BASIS FOR PERMIT APPLICATION - continued

1.2 Description of Emission Calculations - continued

1.2.6 Storage Piles - continued

1.2.6.2 Allowable emissions both current and proposed and net change

Current Proposed
Allowable Allowable % Change

Annual throughput (tons) 25 x 10⁶ 20 x 10⁶

Average tons on ground 1.0 x 10⁶ 0.975 x 10⁶

Number of piles: 15 22.8 +52

Tonnage of average pile: 66,666 42,763 -36

Height of average pile: 75' (22.9 m) 27.8' (8.5 m) -63

Surface area of avg. pile: 85,205 ft²
77,489 ft² -9
(7,920 m²) (7,203 m²)

Area disturbed/day: 1,760,163 ft² 782,639 ft² -27
(100,030 m²) (72,736 m²)

Annual TSP emissions:
Uncontrolled: 162.8 tons 92.0 tons -43
90% controlled: 16.3 tons 9.2 tons -43

Annual PM₁₀ emissionsⁱ
Uncontrolled: 57.0 tons 32.2 tons -43
90% controlled: 5.7 tons 3.2 tons -43

1 The fraction of PM₁₀ particles in TSP is assumed to be 0.35;
therefore, annual PM₁₀ emissions were calculated by multiplying annual
TSP emissions by 0.35.

1.0 BASIS FOR PERMIT APPLICATION continued

1.2 Description of Emission Calculations - continued

1.2.7 Other Emission Sources

1.2.7.1 Propane-fired thaw shed

Manufacturer and Model number: Solar Flow, #1RT-350
Rated heat capacity: 35 MBTU/hr
Rated heat content of propane: 1000 BTU/ft³
Rated fuel consumption: 35,000 ft³/hr (102 heaters,
350 ft³/hr/heater)

Actual heat capacity: 35.413 MBTU/hr
Actual heat content of propane: 2516 BTU/ft³
Annual fuel consumption (1987): 85,900 gallons = 3.13
million ft³

Hourly fuel consumption:
35,413,000 BTU/hour
2516 BTU/ft³ 14,075 ft³/hour propane

The amount of sulfur and ash in the fuel is assumed to be negligible.

Emission rates were calculated as follows:

Emission Rate	Annual Consumption	Annual Emissions
Compound (lb/1000 gal. LPG)	(x 1000 gal. LPG)	(tons/yr)

Particulate	0.265	85.90	0.0114
Sulfur oxides	0.014	85.90	0.0006
Carbon monoxide	3.10	85.90	0.1331
Nitrogen oxides	12.40	85.90	0.5326

VOCs

Non-methane	0.25	85.90	0.0197
Non-methane	0.27	85.90	0.0116

TOTAL VOCs 0.0223

1 Emission rates for LPG from Table 1.5-1, A-42 (9.88)

2 Average value from Table 1.5-1, AP-42, (9/88)

The propane heater is used approximately 222 hours a years, depending on the ambient temperture. The heater is used during December, January, and February at an average rate of 18.5 hours/week.

1.0 BASIS FOR PERMIT APPLICATION continued

1.3 Term'ln'al Emissions

1.3.1 Operation Descriptio

The following section describes individual transfer components and operating procedures of the coal terminal.

Modes of Source Point Operation and Area No. Descri2tion

- 1,2,3 1. Coal discharged from railcars into hopper.
- 1,2,3 2. Coal fed onto Conveyor C-1 by vibrating feeders.
- 1,2,3 3. Conveyor C-1 discharges onto Conveyor C-2.
- 1,2,3 4a. Conveyor C-2 discharges at Tower TT-1.
- 1,2,3 4b. Surge Silo SS-1.
- 1,2,3 5. Surge Silo SS-1 discharges onto Conveyor C-3.
- 1,2,3 6. Conveyor C-3 discharges onto Conveyor C-4, C- 5 or C-6 at Tower TT-2.
- 2 7. Conveyor C-4 discharges onto S/R #1 Elevating Conveyor.
- 2 8. S/R #1 Elevating Conveyor discharges onto S/R #1 Boom Conveyor.
- 2 9. S/R #1 Boom Conveyor discharges (Stacking Mode).
- 4 10. S/R #1 Boom Conveyor loads (Reclaiming Mode).
- 4 11. S/R 'ml Boom Conveyor discharges onto Conveyor C-4.
- 4 12. Conveyor C-4 discharges onto Conveyor C-6.
- 3 13. Conveyor C-5 discharges onto Conveyor C-7 at Tower TT-3.
- 3 14. Conveyor C-7 discharges onto S/R #2 Elevating Conveyor.

1.0 BASIS FOR PERMIT APPLICATION continued

1.3 Termi -hal Emissions - continued

1.3.1 Operation Descriptio -continued

Modes of Source Point
Operation and Area No. Description

3 15. S/R #2 Elevating Conveyor discharges onto S/R #2 Boom Conveyor.

3 16. S/R #2 Boom Conveyor discharges (Stacking).

5 17. S/R #2 Boom Conveyor loads (Reclaiming Mode).

5 18. S/R #2 Boom Conveyor discharges onto C-7.

5 19. Conveyor C-7 discharges onto Conveyor C-8 at Tower TT-3.

5 20a. Conveyor C-8 discharges at Tower TT-4 (if going to Surge Silo SS-2) or onto Conveyor C- 11 (if going to Surge Silo SS-3).

5 20b. Surge Silo SS-2 or SS-3.

1,4,6 21. Conveyor C-6 discharges onto Conveyor C-9 at Tower TT-3.

1,4,6 22a. Conveyor C-9 discharges at Tower TT-4 (if going to Surge Silo SS-2) or onto Conveyor C- 11 (if going to Surge Silo SS-3).

1,4,6 22b. Surge Silo SS-2 or SS-3.

1,4,5,6 23. Surge Silos SS-2 and SS-3 feed coal by vibrating feeders onto Conveyor C-12.

1,4,5,6 24. Conveyor C-12 discharges onto Conveyor C-10.

1,4,5,6 25. Pier Conveyor C-10 discharges onto Shiploader Boom Conveyor.

1,4,5,6 26. Coal discharge from Shiploader Boom Conveyor through a telescoping chute into the ship.

6 27. R-3 Boom Conveyor loads (Reclaiming Mode).

6 28. R-3 Boom Conveyor discharges onto C-13.

6 29. Conveyor C-13 discharges onto C-5 or C-6.

1.0 BASIS FOR PERMIT APPLICATION - continued

1.3 Temifial Emissions - continued

1.3.2 Teminal Operating Modes

In calculating annual emissions, the total time the facility is expected to operate in one of the following six modes was used. It should be noted that the facility can operate in certain combinations of these modes (i.e. Modes 2 and 5, Modes 2 and 6, Modes 3 and 4, and Modes 3 and 6).

Mode Descriptio Hours/Year!

No.1 Coal loaded directly to ship 557

No.2 Coal transferred from dumper to S/R #1 3201

No.3 Coal transferred from dumper to S/R #2 3201

No.4 Coal transferred from S/R #1 to vessel 1926

No.5 Coal transferred from S/R #2 to vessel 1395

No.6 Coal transferred from R #3 to vessel 2214

The terminal will operate 24 hours per day, 365 days per year.

Maximum number of hours operations expected to occur.

1.0 BASIS FbR PERMIT APPLICATION - continued

1.3 Termihal Emissions - continued

1.3.3 Emissions from Material Transfer Points

The maximum annual emissions of fugitive dust from the facility is summarized in Table 1. Maximum hourly emission rates for TSP and PM10 are summarized in Table 2 and Table 4, respectively. Maximum annual emission rates for TSP and PM10 are summarized in Table 3 and Table 5, respectively.

TABLE I

AS-BUILT ANNUAL EMISSIONS
20,000,000 TPH THROUGHPUT

AVG AVG
AVERAGE HOURLY HOURLY IVERAGE YEUIY
FLOW- EMISSION FACTOR CON- TSP PH-10 EMISSIONS
EMISSION RATE TSP PH-10 TROL EMISSION EHISSIOX TSP PH-10
POINTS HODES ROURS (TPH) (I/TOM) (I/TON) (1) (I/RR) (I/HR) (TONS/YR)(TONS
/YR)

```

-----
1 1,2,3 6958.4 2874 0.0021 0.00075 901 0.612 0.214 2.130 0.746
2 1,2,3 6958.4 2874 0.0015 0.00073 901 0.444 0.210 1.545 0.731
3 1,2,3 6958.4 2874 0.0015 0.00073 901 0.444 0.210 1.545 0.731
4(a) 1,2,3 6958.4 2874 0.0015 0.00073 901 0.444 0.210 1.545 0.731
4(b) 1,2,3 6958.4 2874 0.0015 0.00073 99% 0.044 0.021 0.154 0.073
5 1,2,3 6958.4 2874 0.0015 0.00073 901 0.444 0.210 1.545 0.731
6 1,2,3 6958.4 2874 0.0015 0.00073 901 0.444 0.210 1.545 0.731
7 2 3200 2874 0.0015 0.00073 901 0.444 0.210 0.710 0.336
8 2 3200 2874 0.0015 0.00073 901 0.444 0.210 0.710 0.336
9 2 3200 2974 0.0015 0.00073 751 1.110 0.525 1.776 0.840
10 4 1920.8 3614 0.0012 0.00058 501 2.209 1.045 2.122 1.004
11 4 1920.8 3614 0.0012 0.00058 90% 0.442 0.209 0.424 0.201
12 4 1920.8 3614 0.0012 0.00058 901 0.442 0.209 0.424 0.201
13 3 3200 2874 0.0015 0.00073 90% 0.444 0.210 0.710 0.336
14 3 3200 2874 0.0015 0.00073 901 0.444 0.210 0.710 0.336
15 3 3200 2874 0.0015 0.00073 90% 0.444 0.210 0.710 0.336
16 3 3200 2874 0.0015 0.00073 75% 1.110 0.525 1.776 0.840
17 5 1394.4 3614 0.0012 0.00058 501 2.209 1.045 1.540 0.729
18 5 1394.4 3614 0.0012 0.00058 901 0.442 0.209 0.308 0.146
19 5 1394.4 3614 0.0012 0.00058 901 0.442 0.209 0.308 0.146
20(a) 5 1394.4 3614 0.0012 0.00058 90% 0.442 0.209 0.308 0.146
20(b) 5 1394.4 3614 0.0012 0.00058 99% 0.044 0.021 0.031 0.015
21 1,4,6 4698.4 3614 0.0012 0.00058 90% 0.442 0.209 1.038 0.491
22(a) 1,4,6 4698.4 3614 0.0012 0.00058 901 0.442 0.209 1.038 0.491
22(b) 1,4,6 4698.4 3614 0.0012 0.00058 99% 0.044 0.021 0.104 0.049
23 1,4,5,6 6092.8 3614 0.0012 0.00058 901 0.442 0.209 1.346 0.637
24 1,4,5,6 6092.8 3614 0.0012 0.00058 901 0.442 0.209 1.346- 0.637
25 1,4,5,6 6092.8 3614 0.0012 0.00058 90% 0.442 0.209 1.346 0.637
26 1,4,5,6 6092.8 3614 0.0012 0.00058 751 1.105 0.522 3.365 1.592
27 6 2219.2 3614 0.0012 0.00058 50% 2.209 1.045 2.451 1.159
28 6 2219.2 3614 0.0012 0.00058 90% 0.442 0.209 0.490 0.232
29 6 2219.2 3614 0.0012 0.00058 901 0.442 0.209 0.490 0.232
-----

```

SUBTOTAL = 35.591 16.572
PILE EMISSION = 9.200 3.220

TOTAL (tons/yr) = 44.791 19.792

T?C

TABLE 2 2

AS-BUILT
AVERAGE ANNUAL PH10 EMISSION RATES (lb/hr)

20,000,000 TOXS PER YEkR
THROUGHPUT

	EMISSION					
POINT	lo.1	No. 2.	No.3.	No.4	- lo.5	No-.6
	-----	-----	-----	-----	-----	-----
1	0.214	0.214	0.214			
2	0.210	0.210	0.210			
3	0.210	0.210	0.210			
4(a)	0.210	0.210	0.210			
4(b)	0.021	0.021	0.021			
5	0.210	0.210	0.210			
6	0.210	0.210	0.210			
7	0.210					
8	0.210					
9	0.525					
10	1.045					
11	0.209					
12	0.209					
13	0.210					
14	0.210					
15	0.210					
16	0.525					
17	1.045					
18	0.209					
19	0.209					
20(a)	0.209					
20(b)	0.021					
21	0.209	0.209	0.209			
22(a)	0.209	0.209	0.209			
22(b)	0.021	0.021	0.021			
23	0.209	0.209	0.209	0.209		
24	0.209	0.209	0.209	0.209		
25	0.209	0.209	0.209	0.209		
26	0.522	0.522	0.522	0.522		
27	1.045					
28	0.209					
29	0.209					
	-----	-----	-----	-----	-----	-----
SUBTOTAL	= 2.874	2.230	2.440	3.051	2.842	3.051
EMISSION	= 0.735	0.735	0.735	0.735	0.735	0.735
	-----	-----	-----	-----	-----	-----
(tons/yr)	= 3.609	2.965	3.175	3.786	3.577	3.786

T?C

TABLE 3

AS-BUILT
AVERAGE AXXUA.L PH10 EMISSION RATES (lb/hr)

20,000,000 TONS PER YEAR
THROUGHPUT

1988
HOURLY HOURS OF MMAL
EMISSION OPERATION EMISSION
HODE (lb/br) 1988 (hr) (ton)

1	2.874	558.4	0.802
2	2.230	3200	3.568
3	2.440	3200	3.904
4	3.051	1920.8	2.930
5	2.842	1394.4	1.982
6	3.051	2219.2	3.386

SUBTOTA.L = 16.572
PILE EMISSION = 3.220

TOTAL (tons/yr) = 19.792

T?C

TABLE 4 7_1_ ;@.LE 4

AS-BUILT

LVERAGE AXUAL TSP EMISSION RATES (lb/hr)

20,000,000 TONS PER YEAR

THROUGHPUT

POINT	X0.1	No.2	No.3	Xo.4	No.5	No.6
1	0.612	0.612	0.612			
2	0.444	0.444	0.444			
3	0.444	0.444	0.444			
4(a)	0.444	0.444	0.444			
4(b)	0.044	0.044	0.044			
5	0.444	0.444	0.444			
6	0.444	0.444	0.444			
7	0.444					
8	0.444					
9	1.110					
10	2.209					
11	0.442					
12	0.442					
13	0.444					
14	0.444					
15	0.444					
16	1.110					
17	2.209					
18	0.442					
19	0.442					
20(a)	0.442					
20(b)	0.044					
21	0.442	0.442	0.442			
22(a)	0.442	0.442	0.442			
22(b)	0.044	0.044	0.044			
23	0.442	0.442	0.442	0.442		
24	0.442	0.442	0.442	0.442		
25	0.442	0.442	0.442	0.442		
26	1.105	1.105	1.105	1.105		
27	2.209					
28	0.442					
29	0.442					

SUBTOTkL	= 6.234	4.874	5.318	6.451	6.009	6.451
EMISSION	= 2.100	2.100	2.100	2.100	2.100	2.100

(tons/yr)	= 8.334	6.974	7.418	8.551	8.109	8.551

T?C

TABLE 5

AS-BUILT
AVERAGE ANNUAL TSP EMISSION RATES (tons/yr)

20,000,000 TOXS PER YEAR
THROUGHPUT

AVERAGE
HOURLY HOURS OF ANNUAL
EMISSION OPERATION EMISSION
MODE (lb/hr) 1988 (br) (ton)

1	6.234	558.4	1.741
2	4.874	3200	7.799
3	5.318	3200	8.509
4	6.451	1920.8	6.195
5	6.009	1394.4	4.190
.6	6.451	2219.2	7.158

SUBTOTAL = 35.591
PILE EMISSION = 9.200

TOTAL (tons'/yr) = 44.791

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Technical Data Sheet

Product FTH-100

RCRA Metals

Metafg Reisult EPA M

Arsenic <1.0 20a.2
Barium <1.0 200.7
Cadmium <0.05 200.7
chromium <1 .0 200.7
Lead 0.22 239.2
Mercury <0.002 245.1
Selenium <0.5 270.2
Silver <2.0 200.7

An data reported in mg/i

-MaJ4 UWAt 000

Technical Data Sheet

Product: FTH- 1 00

Semi-Volatile Organics by Method 8270

CAS#__ CaMound - LUZXP-')

"Y-d in

62-25-7 N-Ni modkaeth- mine 8,000 u
110-86-1 Pyridinc 8,000 u
97-63-2 Ethyl u*b=yatc 8,000 u
123-63-7 Paraldehyde 8,000 u
109-06-8 2-Picalinc 16,000 u
10595-95-6 N-it-osomethylethylamine 8,000 u
66-27-3 Mcthyl 8,000 u
108-95-24 Phenol 8,000 u
55-18-5 N-N-itroscKffethyUminc 8,000 u
62-50-5 Ethyl icsulfbtate 8,000 u
62-53-3 Aniline 8,000 u
76-01-7 Pr-ntmWoroetbane 8,000 u
111-44-4 bis (2-Odomtbyl) erher 16,000 u
95-57-8 2-CWorophenol 8,000 u
541-73-1 1,3-DicWorubft=r, 8.000 u
100 44-7 Benzyl cbloride 8,000 u
106-46-7 1,4-,-DichIorobc=ene 8,000 u
100-51-6 Bcizy] alcohol 8,000 u
95-50-1 1,2-Dir-hl=bc=o 8,000 u
95-48-7 2-Mattaylphcnot 8,000 u
39638-32-9 bis (2-Chloroisoprupyl) ether 8100(u
108-39-4 3-Mcffiylphenol 8,000 Ti
106-44-5. 4-Methylphenol 8,000 u
930-55-2 N-Niltrosopyrrolidinc, 8,000 u
59-89-2 N-Nitro3omoipholine 8,000 u
98-86-2 Ar-etophcaoac 8,000 u
621-64-7 N-N-itrosa-Di-n-PrvpyI&rWne 8,000 u
636-21-5 o-Toluidine hydrocbloride 8,000 u
67-72-1 H=Achlomethaw 8,00,0 u
98-95-3 Nitrobcnz=e 8,000 u

Page 2

Product: FTH- 1 00

Semi-Volatile Organics by Method 8270

CAS# - Commound - Concmtsion (UgT,.g)

100-75-4 N-Nittvs0pipeddine 8,000 u
78-59-1 8,000 u
38-75-5 2-NibDphanol 8.000 u
105-67-9 2j4-Dim!thyIph=0I 8,000 u
108-70-3 1.3,5-Trichlorobcaz= 8,000 u
9"7-3 Ekmzzl 81000 Ti
65-85-0 Benz6c acid 990 1
111-91-1 bis (2-Cbloroethoxy) mcd=e 8,000 Ti
120--93-2 2,4.D hpmnl 8,000 u
lb
120-82-1 1,2,4-Trichl 8,000 u
91-20-3 NapdW=c 8,000 U
10647-8 4-CbIarvaniI;:D.C 8,000 u
97-65-0 2.6-Dichloroph=1 16,000 u
95-54-5 o-Pb=Yienediurnine 8,000 u
122-09-8 dimethyIphcnyle&yIzmine 8,000 u
1888-71-7 IC 8,000 u
87-68-3 H ene 8,000 u
87-61-6 1 A3 -TrkMorube=z=c 8,000 u
9&47-7 'Bc= . 16,000 u
924-16-3 N-Nitwso4i-n-butAimffic 3,000 u
59-50-7 4-Cblozo-3-methylphanol 8,000 'U
106-50-3 P-Phcnyl 1=in 8,000 u
94-59-7 Sakole 8,000 u
106-50-3 m-Phanylenediamine spooo u
91-57-6 2-MaaylWbtWcne 8,000 Ti
90-1:2-0 I-Mckhmphibal= 8,000 u
95-94-3 IA4.5-TctmchIorob=zzw 81000 u
634-90-2 1,2,3,5.Tet=hl ="C 8,000 u
77-47-4 j&=ChhxI0CyCI0pCnt,&=C 8,000 Ti
88-06-2 2.4.6-Tricblorophenol 161000 u
95-95-4 2,4,5_TrjcbIozvphcnoI 16,000 u
120-5&1 Isaaaftole 16,000 u
91-58-1 2-Moronaphthalene 8,000 u
90-13-1 1-Chlora 8,000 u

Page 3

Product: FTH- I 00

SeMi-Volatile OrganICS by Method 8270

CASIO CoMp

Wd Concentr-atioia LugLKg)

634-66-2 1 AM-TauwWo 8,000 u
83-74-4 2-xfUvanm= 9,000 u
130-15-4 1,4-Naphtaqu@@ 16,000 li
100-25-4 1,4-Dinitrobenme 16,000 u
131-11-3 Dimcthyl PhdLalate 8,000 u
20&96-8 Ar-=2phthylW 8,000 u
99-09-2 3-Nitwniline 16,000 u
83-32--9 Ac 8,000 u
51-29-5 2,A-Din@hcnvl 32,000 u
100-02-7 4-N-itmphenol 8,000 Ti
132-64-9 Iklw=fm-aU 8,000 u
121-14-2 2,4-Dinitrotoluaae 8,000 u
608-93-5 PentwJ3loxvbCm= 8,000 u
134-32-7 2-Naphthylmine 16,000 u
606-20-2 2.6-Dkitotoluc= 8,000 u
L34-32-7 I -N2phtybn3inC 16)000 u
58-90-2 2,3,4,r5-Tctwhl=ph=1 16,000 u
84-66-2 Diathylphthalate 8,000 u
297-97-2 8,000 u
7005-72-3 4-Chlcruphenyl-ph=ylcthr 8,000 'U
86-73-7 Fluon= slooo u
100-01-6 4-Nitmanllkc 16,000 u
99-55-8 5-Nlift*-o@luidiae 16,000 Ti
534-52-1 4,6-Dinifto-2-mclhylph=ol 24,000 'U
86-30-6 N-N'ltmacdip stooo u
122-39-4 Diph=ybmine 8,000 u
99-35-4 1,3,5-Triniutbenzenc 16,000 u
122-66-7 1,2.Diphenylhy&a-.dnL- S)OOO Ti

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Page 4

Product: F171-1- 1 00

Semi-Volatile Organics by Mctbod 8270

u- rdIcat= c=p=d wa =Wymd tmn =t dc=W& 'nem Mmplc qumdtB:-icm UTnit =Mt @C
cam-..*A ror d3j== md for P=ca moisftr-
J- T,,,rmt= an cahmawd Val= Th4 &C is wed dthw whw udmzfm?. a Gmc=tMd0n fcr
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tqn-4 510/100'j

Technical Data Sheet

Product: FTH-100

TCLP Met2fs

Metals Result Units -EPA Method

Arsenic	0.046	5.0	206.2
Barium	0.50	100	208.1
Cadmium	<0.005	1.0	213.2
Chromium	<.05	5.0	218.1
Lead	<0.05	5.0	239.1
Manganese	<0.001	0.2	245.1
Selenium	0.01	1.0	270.2
Silver	<0.005	5.0	272.1

All data reported in ppm

1190-1 5101300,4 zsa-i acoz-gz-s"y

Technical Data Sheet

Product: FTH-100

Calorific Content by ASTM D-240

a*

File L Re A

CalorMc Content 8,82613TUAb

Reported on an ar. is basis

Product Name: FTH-100 Preparation date: S/A3100

SECTION I CHEMICAL PRODUCT AND COMPANY IDENTIFICATION .7

PRODUCT NAME: FrH-1 00 MSDS REVISION 001

SYNONYMS: None

DISTRIBUTED BY., Accreton Technologies
300 Business Center Drive, Suite 302
Pittsburgh, PA 15205

PHONE NUMBER: (304) 552-2919

SECTION 2 COMPOSITION INFORMATION ON INGREDIENTS

Component % CAS No. Exposure Limits

Organic resin 30-60 Proprietary Not established
Surfactant blend 1-10 Proprietary Not established
Guar gum 1-10 9000-30-0 Not established
Fatty alcohol fatty acid 1-10 Proprietary Not established
Water 30-60 7732-18-5 Not established

SECTION 3 HAZARD IDENTIFICATION

EMERGENCY OVERVIEW

Product is a brown liquid with a bright, bland odor. The product may cause eye irritation. Avoid contact with skin, eyes and clothing. Wear protective goggles and gloves when handling the product. Wash thoroughly after handling.

POTENTIAL HEALTH EFFECTS

EYES;

Can cause irritation.

Section 3 continued on next page
790-1 510/010-4

ACCRETION TECHNOLOGIES Page 2 of 6
MATERIAL SAFETY DATA SHEET

Product Name: M-100 Preparation date: 8/1-8100

SECTION 3 - HAZARDS IDENTIFICATION (continued)

SKIN:

Prolonged or repeated contact may result in irritation. Persons with pre-existing skin conditions are particularly susceptible.

INGESTION (swallowing):

May cause irritation of the mouth and throat, nausea, vomiting and diarrhea.

INHALATION (breathing):

Spray or mist may cause irritation to the nose, throat and lungs. Persons with pre-existing lung disorders are particularly susceptible.

CHRONIC EFFECTS-CARCINOGENICITY:

This product (or component) is not listed in IARC Monographs, the NTP Seventh Annual Report or the ACGIH TLVs as a carcinogen or potential carcinogen. OSHA does not regulate it as a carcinogen.

SECTION 4 FIRST AID MEASURES

EYE CONTACT:

Rush with large amounts of water for at least 15 minutes, lifting upper and lower lids occasionally. Get medical attention.

SKIN CONTACT:

Wash exposed area with soap and water. Launder contaminated clothing before reuse.

INGESTION (swallowing):

Immediately drink two large glasses of water. Call a physician. Do NOT induce vomiting unless instructed to do so by physician. Never give anything by mouth to an unconscious person.

INHALATION (breathing):

If affected, move to fresh air.

@rg 3-4 910/1 io-j ZSC-i

Product Nama: FrH-100 Preparation date: 846100

SECTION 5 - FIRE FIGHTING MEASURES

FLASH POINT: 500' F (1 00' C) FLASH POINT METHOD: PMCC

UPPER EXPLOSION LIMIT: Unavailable
LOWER EXPLOSION LIMIT: Unavailable
AUTOIGNITION TEMPERATURE-- Unavailable
SENSITIVITY/SPARK5: Unknown
SENSITIVITY/STATIC ELECTRICITY: Unknown

EXTINGUISHING MEDIA:
Dry chemical, water fog, and regular foam

HAZARDS:
None known. Product contains a large amount of water, and would not normally burn.

FIRE-FIGHTING EQUIPMENT;
Keep personnel removed from and upwind. Wear full protective clothing and self-contained breathing apparatus with full face-piece.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Persons not wearing protective equipment should be excluded from the area of the spill until Clean up has been completed. Dike area of spill to prevent spreading and pump liquid to salvage tank. Absorb remaining liquid on vermiculite. floor absorbent or other absorbent material and shovel into containers.

SECTION 7 - HANDLING AND STORAGE

HANDLING:
Avoid contact with skin, eyes and clothing. Wash thoroughly after handling.

STORAGE:
Keep in closed or covered containers when not in use. Store in cool dry Place with adequate ventilation.

730-@ 610MU'd ZSD-i

Product Name: FTH-100 Preparation date: 8/11/00

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION:

Not required under normal conditions.

SKIN PROTECTION:

Wear protective gloves such as Neoprene or Buna-N.

EYE PROTECTION:

Chemical splash goggles in compliance with OSHA regulations are advised.

OTHER PROTECTION:

Normal work clothing covering arms and legs are recommended.

ENGINEERING CONTROLS:

Provide sufficient ventilation to maintain exposure below level of overexposure.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Brown liquid @ 68° F (20° C)

Odor: Slight bland

SPECIFIC GRAVITY: >0.998

VAPOR PRESSURE (mm Hg): 17.5 @ 68° F (20° C)

VAPOR DENSITY (Air = 1): Lighter than air

INITIAL BOILING POINT: 212° F (100° C)

EVAPORATION RATE: <1

(Flash Point = 1)

SOLUBILITY in WATER: Dispersible

VOLATILE Unavailable

pH: ~ 5-7

pH METHOD: Unavailable

ACCRETION TECHNOLOGIES Page 5 of 6
MATERIAL SAFETY DATA SHEET

Product Name: FTH-100 Preparation date: SIT6100

SECTION 10 - STABILITY AND REACTIVITY

STABILITY (conditions to avoid):
Stable under normal conditions.

INCOMPATIBILITIES (materials to avoid):
Avoid contact with strong oxidizing agents and strong mineral acids.

DECOMPOSITION:
Not available.

HAZARDOUS POLYMERIZATION:
Can not occur.

SECTION 11 - TOXICOLOGICAL INFORMATION

No data available.

SECTION 12 - ECOLOGICAL INFORMATION

In an effort to demonstrate the safety of the product when used as a dust control agent, 82 grams of product were mixed with 1,890 grams of aggregate, typical of dirt roads. The mixture was allowed to dry, then mixed with water and allowed to stand. The water was then tested in aquatic toxicity studies, and found to be non-toxic to Daphnia magna.

SECTION 13 - DISPOSAL CONSIDERATIONS

Incineration is the recommended disposal method for all chemical wastes. Material collected on an absorbent material may be deposited in a landfill in accordance with all applicable local, state and federal regulations.

This product, if disposed of, is not considered a hazardous waste under current RCRA definitions.

SECTION 14 - TRANSPORT INFORMATION

UN1261 3.2 Hazardous waste

ACCRETION TECHNOLOGIES Page 6-of 6
MATERIAL SAFETY DATA SHEET

Product Name: FTH-100 Preparation date: 8/11/00

Not regulated under current DOT, IMO, or ICAO re-regulations. --
SECTION 15 - REGULATORY INFORMATION

TSCA INFORMATION:

All components in this product are in compliance with TSCA Inventory requirements.

SARA 313 INFORMATION:

SARA requires submission of annual reports of release of toxic chemical, which must appear in 40 CFR 372. This information must be included in all MSDS that are copied and distributed for this material.

Components present in this product at a level that could require reporting under the statute are: None

SECTION 16 - OTHER INFORMATION

HAZARD RATING:

HEALTH 1 0 - LEAST

FIRE 1 1 - SLIGHT

REACTIVITY 0 2 - MODERATE

OTHER - 3 - HIGH

4 - EXTREME

HAZARD RATING METHOD: NFPA

REASON FOR REVISION:

Updated flash point information (Section 5).

The product information contained herein is believed to be accurate as of the date of the Material Safety Data Sheet and is provided without warranty, expressed or implied, as to the results of the use of the product or the product's relation to which it is related. Recipients assume all responsibility for the use of this information and the use of the product in combination with any other product, storage or disposal of the product, including any resultant material injury or property damage.

END OF REPORT

TC cal Data Sheet

Product: FTH- 1 00

Volatfle Organics by Method SM

CASI 9&=qund

74-87-3 Chlr=mcthn e 23
74-93-9 21"e- 26' u
75-01-4 Vinyl Cw0ride 53 u
75-00-3 53 v
?5-09-2 Mathylene ewmide 1,700 BE
67-64-1 Acetone 2,800 BE
75-15-0 Ca*= dimWde 22
73-35-4 1.1-Dicbl moeth= 26
75-34-3 1,1-Dicblmoetbaw 26 Ti
540-59-0 1.2-Dichlmvethm (toW) 26 u
67-66-3 - ClImm fom 27
107-06-2 1,2-Dichlcrud=c 26 u
73-93-3 2-Butmone 830 n
71-55-6 1,1,1-Tricblorocdi= 26 u
56-23-5 Carbon ictwWoride 26 u
108-05-4 V-myl acetAt 53 u
75-27-4 Bromodicblo hanc 26 u
78-87-5 1,2-Dichl 26 u
10061-01-5 cis-1,3-Dichl 26 Ti
79-01-6 Tricblotvctb=e 26 u
'bro=chloromethaac
124-48-1 Di 26 u
79-00-5 1,1,2-Ttichlcroedme 26 u
71-43-2 Bmz=e 150
10061-02-6 Tr=-1,3-1)j%-11"lWAL0F0pe= .26 u
110-75-8 2-Cbl mocffiylvinylethcr 53 u
75-25-2 Brcmofo= 53 u
109-10-1 4-MethyI-2-Pentanone 280
.591-78-6 2-Hcxanone 79 u
1.27-18-4 Tetrwhloruegme 26 u
79-34-5 1.1,42-Tetrachknaeffigne 53 u

fianta'd zsa-i -mji neoe-at

Page 2

Product: Fnl- I 00

Volatile Organics by mt:thod &24o

CASA Comp0=4 -QnCer&aticn (-udKgl

10849-3 TOIUC= 1,300 E
109-90-7 Chi 7V-"C 26 u
100-41-4 Bthy%="C 360
100-42-5 SryTc= 653
1330-20-7 Total xyl=cs 340
74-88-4 1 - - -,;I ate 53 u
107-02-8 Acrolak 640 u
107-13-1 AcrylmftrRe 26L T-T
75-69-4 Tr;cw= r r n 26 u
107-0-5-1 3 79 u
7&13-1 53 u
354-58-5 1,1,1-TrkWoro-2.2,2-tdfhwromth2n 53 u
74-95-3 Dibr= - - " 53 u
4170-30--3 Cro=aldehyde 530 u
10&93-4 1,2-Dffii I CM r, eth=C 26 u
630-20-6 1,1,1,2-TctrjcbIcroctbane 26 u
764-71-0 Cis-1,4-DicbIatv-2-bu=e 79 u
96-18-4 1,2,3-TrichIcropropane 79 u
764-71-0 k=s,14-Dichloro-2-butene 79 u
96-18-4 Ethylwoftayiatc 53 u
96-12-8 1,2-Dibrumo-3-dicraptopanz 51 u

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TechnIC21 Data Sheet

Product: FTH-1 00

Extractable Organic Halides in Soil
by EPA 6M4-84408

I-est - -Detection Limit R=ft
EDH in Soil 70m@ft -470mg/kg

Reported on dry weight basis

Technical Data Sheet

Product: FTJE[-100

Polynuclear Aromatic Hydrocarbons by EPA Method 62518270C

C=C=tr9Cn (Uff@KgL Flig

AccuqnhAb=C <100,000 u

A <100,000 u

Mthnc= <100,000 u

<100,000 Ti

B== (a) pyrem <100,000 u

Bca-zo (b) <1007000 u

(S.h@) PWk= <100,000

Ben (k) -"th=a- <100,000 u

Chrysem <IK000 u

(e,h) .1 cnc <100,000 u

thc:ae <100,000 Ti

FIUM= <100,000 u

Ind= (1.2,3-cA) py=e <100,000 Ti

Naphtbalew <100.000 u

Phananth=c <100.000 u

Pyre= <1001000 u

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Issued with new permit application:

1. DTA wishes to have an Air Permit to Operate with the following:
 - a. 24,000,000 tons/year throughput of all coal products
 - b. 5,000,000 tons/year processing of raw coal into synfuel
 - c. 10,000,000 tons/year maximum import of raw coal via ship (remainder would be by rail)
 - d. 975,000 tons maximum average ground storage on the 101 acres of coal storage pad
2. Current permit is for:
 - a. 24,000,000 tons/year throughput
 - b. 12,264,000 tons/year processing of raw coal into synfuel
 - c. 1,400,000 tons maximum ground storage on 101 acres.
3. Application for expansion from 60 to 101 acres in 1989, used AP-42 for all computations, including the storage pile emissions. That application argued for 975,000 tons of allowable-storage (as apposed to possible storage) which resulted in 9.2 tons/year TSP. The total permitted controlled emissions was 60.8 tons/year TSP.
4. The 2002 application for synfuel plant(s) took a different approach which led to several "disconnects" with the previous permit applications:
 - a. Used 99% control efficiencies for all coal transfers regardless of the published "EPA Accepted-Control Device" efficiencies.
 - b. Used double bookkeeping on emissions from conveyers and their endpoint transfers.
 - c. Used a DEQ spreadsheet (JOKE) to compute maximum controlled emissions from the facility without taking into account that:
 - i. JOKE was developed by DEQ (AQCB) to estimate total facility emissions (not just the piles) assuming that those emissions were scaled to average coal tonnage stored. JOKE was calibrated when the facility was 60 acres and there were no synfuel operations.
 - ii. JOKE is extremely flawed when there are extended periods of freezing (> 3 days). Such periods have occurred several times over the past few years revealing this shortcoming.
 - iii. JOKE uses a "calibration" factor of 90.27 in an empirically adjusted non-linear equation relating coal pile dimensions, average weather related stress and efficiency of the implementation of the K-factor system. In the 2002 permit modification, this number was incorrectly used as the maximum emissions from coal piles only and was added to all other AP-42 derived emissions from conveyers, dumpers, stacker/reclaimers, crushers, screening, etc. This resulted in a total estimated TSP emission of 112.7 tons/year.
5. Emissions from the grab buckets are difficult to quantify. While the buckets are designed to transport the coal in a "fully enclosed" manner, there are still issues of

coal dribbling off the exterior of the bucket and the fugitive emissions from the hold of the ship due to disturbing the coal during unloading.

6. SWA recommends that AP-42 be followed for all aspects of the permitting process, as was done in the 1989 permit application. SWA recommends that the 975,000 tons allowable storage be used instead of the 1,400,000 for the reasons argued in the 1989 permit application. SWA also recommends use of updated coal moisture data provided by DTA owners. SWA also recommends that JOKE be retired as the means for DEQ assessment of DTA compliance with the terms of its permit. Instead, the record of DTA's adherence with the K-factor system and the PM-10 monitoring at 180J be used to assess compliance. SWA will provide a written critique of JOKE if requested.

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Ship
Loader

Coal Handling and Storage Components

Unit	Ref	Description	Equip	Code	Store(tons)	tons(hr)	ton(day)	tons(yr)	%effic
control		uncontrof							
CS-FC	700	16,800	2,500,000	99	0.1625	16.25			
CS-FC	700	16,800	2,500,000	99	0.1625	16.25			
CS-FC	700	16,800	2,500,000	99	1	100			
CS-FC	700	16,800	2,500,000	99	1	100			
CS-FC	700	16,800	2,500,000	99	1	100			
CS-FC	700	16,800	2,500,000	99	1	100			
SW-CS	350,000	24,000							
SW-CS	350,000	24,000:000000							
SW-CS	350,000	24,000,000							
SW-CS	350,000	24,000							
SW-CS	40,000	5,000:000000							
SW-CS	50	2,000							
SW-CS	20,000	5,000,000							
-FE	1000	2,740	65,753	14,000					
SW	000								
SW-FE	3800	2,740	65,753	12,000,000					
SW-FE	4100	2,740	65,753	12,000	000				
SW-FE	50	700	16,800	2,500,000					
SW-FE	5	700	16,800	2,500,000					
SW-FE	5	700	16,800	2,500	000				
SW-FE	5	700	16,800	2,500	000				
SW-FE	5	700	16,800	2,500,000					
5	16,800	2,500							
SW-FE	700	3000							
TC-FC	2,740	65,753	14,000	000					
TC-BH	2,740	65,753	14,000	000					
TC-PC	2,740	65,753	14,000	000					
TC-PE	2,740	65,753	21,000,000						
TC-PE	2,740	65,753	21,000,000						
TC-PC	2,740	65,753	11,000,000						
TC-PC	2,740	65,753	1	1,000,000.	'..-'. ,				
TC-PC	2,740	65,753	31,000,000						
TC-PC	2,740	65,753	31,000,000						
TC-PC	2,740	65,753	24,000	t000					
TC-BH	2,740	65,753	24,000,000						
TC-PE	2,740	65,753	24,000	000					
LO-FC	2,740	65,753	24,000:000						
TC-BH	2,740	65,753	12,000,000						

Coal Handling and Storage Components

TC-BH 2,740 65,753 24,000,000
TC-PC 2,740 65,753 11,000,000
SL-CS 6,800 33,600 5,000,000
TC-FC 1,400 33,600 5,000,000:,:...@@,,@'.
TC-FC 1,400 16,800 2,500,000
TC-PC 0 5 2,000
TC-FC 700 16,800 2,500,000
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TC-FC 233 5,600 833,333
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TC-FC 333
TC-FC 700 16,800 2,500,000
0 5
TC-PC 2,000
TC-FC 700 169800 29500,000
SL-CS 700 16,800 2,5009000
TC-FC 1,400 33,600 5,000,000

Coal Handling and Storage Components

UL-FE 5,000,000 70 0.857562 2.858539
UL-FE 5,000,000 70 0.857562 2.858539
TC-BH 5,000,000 99 0.028585 2.858539
TC-BH 5,000,000 99 0.028585 2.858539
10,000,000
TC-PC
TC-PC i 0,000,000
TC-PC 5,000,000
New PM emissions 1.772294 11.43415

Piles 9.2 See 1989 permft application
Total Storage/processing 6.097294
Transfers 50.43851
Total PM 65.7358

S" two pb
Crushers 0.013 0
Transfers 0.001143415 0.00114342
Screens 0.08 0
14,000,000 5,000,000 10,000,000
Silt 3.5 not used
Moisture 6.7 Based upon average moisture content as measured at DTA
Mean Wind - 10.5 Based upon local weather data
k 0.74 AP-42
base 0.0032 AP-42
EF 0.001143415 AP-42

Notes: The labels used for components are based upon EPA's suggested categories of dust control and the
% control values are consistent with those published as "EPA Accepted Control Device Listing"

The emission factor at transfer points is computed using equations in AP-42

The emission factors for crushers and screens were back calculated from material in permit application (2002)
.01 14 and .01 3 and .0099 for crushers
.0249 and .08 and .0250 for screens
.001 4 for conveyers/transfer points

Transfer Points

```
Trans Pt fresh rail synfuel fresh ship reclaim fresl reclaim syn %effic contro
1  uncontrol
1 UD-FC 99 0.0399 3.99
2 UD-FC 99 0.0399 3.99
3 TC-FC 99 0.0798 7.98
4 TC-SH 99 0.0798 7.98
5 TC-PC 95 0.399 7.98
6 TC-PC 95 0.399 7.98
8A TC-PE 5,000,000 50 3.424269 6.84 1.429269 2.85
BB TC-PIE 5,000,000 50 5.989269 6.84 1.429269 2.85
7 LO-RC 5,000,000 80 2.395708 8.84 0.571708 2.85
8 0 95 0.114 0
9 TC-PE 0 50 1.71 0
1 0 LO-RC 0 80 0.684 0
1 1 TC-PC 0 95 0.313927 2.85
12 TC-PC 95 0.342427 6.84
12A TC-PE 5,000,000 50 4.853539 9.89 1.429269 2.85
12B TC-PE 5,000,000 50 8.847808 9.89 1.429269 2.85
13 LO-RC 5,000,000 80 3.539123 9.89 0.571708 2.85
15 TC-PC 95 0.1425 2.85
16 SL-CS 75 0.7125 2.85
17 LO-FC 99 0.014293 1.425
18 TC-FC 99 0.014293 1.425
19 UL-WS 50 0.000572 0.00114
20 LO-PC 95 5.72E-05 0.00114
21 TC-FC 99 1. I 4E-05 0.00114
22 CS-FC 99 0.014293 1.425
23 TC-FC 99 1. 14E-05 0.00114
24 SL-CS 95 5.72E-05 0.00114
25 LO-FE 80 0.000229 0.00114
26 TC-FC 99 0.014293 1.425
27 TC-FC 99 0.014293 1.425
28 TC-FC 99 0.014293 1.425
29 TC-FC 99 0.014293 1.425
30 TC-FC 99 0.014293 1.425
31 TC-FC 99 0.014293 1.425
32 TC-FC 99 0.014293 1.425
33 TC-FC 99 0.004764 0.475
```

Transfer Points

34	TC-FC	99	0.004764	0.475
35	TC-FC	99	0.004764	0.475
36	TC-FC	99	0.004784	0.475
37	TC-FC	99	0.004764	0.475
38	TC-FC	99	0.004764	0.475
39	TC-FC	99	0.004764	0.475
40	TC-FC	99	0.004764	0.475
41	TC-FC	99	0.004764	0.475
42	TC-FC	99	0.014293	1.425
43	TC-FC	99	1.14E-05	0.00114
43A	SL-CS	75	0.000286	0.00114
44	TC-FC	99	0.014293	1.425
45	TC-PC	95	0.071463	1.425
48	SL-CS	75	0.357317	1.425
47	UL-WS	50	0.000572	0.00114
48	LO-PC	95	0.071463	1.425
49	TC-FC	99	0.014293	1.425
50	CS-FC	99	0.014293	1.425
51	TC-FC	95	5.72E-05	0.00114
52	SL-CS	75	0.000286	0.00114
53	LO-CS	80	0.000229	0.00114
54	TC-FC	99	0.014293	1.425
55	TC-FC	99	0.014293	1.425
56	TC-FC	99	0.014293	1.425
57	TC-FC	99	0.014293	1.425
58	TC-FC	99	0.014293	1.425
59	TC-FC	99	0.014293	1.425
80	TC-FC	99	0.014293	1.425
61	TC-FC	99	0.004764	0.475
62	TC-FC	99	0.004764	0.475
63	TC-FC	99	0.004764	0.475
64	TC-FC	99	0.004764	0.475
65	TC-FC	99	0.004764	0.475
86	TC-FC	99	0.004764	0.475
67	TC-FC	99	0.004764	0.475
68	TC-FC	99	0.004764	0.475
69	TC-FC	99	0.004764	0.475

Transfer Points

```
70 TC-FC 99 0.014293 1.425
71 TC-FC 99 1. 1 4E-05 0.00114
71 A SL-CS 75 0.000286 0.00114
72 TC-FC 99 0.014293 1.425
73 TC-PC 95 0.071463 1.425
74 SL-CS 75 0.357317 1.425
75 LO-FC 99 0.028585 2.85
76 TC-PC 95 0.142927 2.85
79 TC-PC 95 0.342213 0
80 TC-PC 95 0.342213 0
81 TC-BH 99 0.031371 0
82 TC-PC 95 0.342213 0
83 TC-PC 95 0.306482 0
84 TC-BH 99 0.068443 0
85 TC-PC 95 0.342213 0
86 TC-PC 95 0.684427 0
86A TC-PE 50 6.844269 0
87 SL-FE 80 2.737708 0

88 UL-FE 5,000,000 70 0.857562 2.85 0.857562 2.85
89 UL-FE 5,000,000 70 0.857562 2.85 0.857562 2.85
90 TC-BH 5,000,000 99 0.028585 2.85 0.028585 2.85
91 TC-BH 5,000,000 99 0.028585 2.85 0.028585 2.85
92 TC-PC 5,000,000 95 0.142927 2.85 0.142927 2.85
93 TC-PC 5,000,000 95 0.142927 2.85 0.142927 2.85
94 TC-PC 10,000,000 95 0.285854 5.7 0.285854 5.7
95 TC-PC 10,000,000 95 0.285854 5.7 0.285854 5.7
96 TC-PC 5,000,000 95 0.142927 2.85 0.142927 2.85
Total PM for new import functions 9.633275 48.45
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Total PM for all transfers 50.43851 190.396

coal ship Belt terms

transfer's 0.001 14 lbs/ton 0.001 14342 lbs/ton 0.001 143415 lbs/ton

Transfer Points

14,000,000 5,000,000 10,000,000
7,000,000 2,500,000 5,000,000
833,333