



**STATEMENT OF BASIS**

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BAQ Engineering Services Division  
 2600 Bull Street, Columbia, SC 29201  
 Phone: 803-898-4123 Fax: 803-898-4079

<b>Company Name:</b>	Kinder Morgan Southeast Terminals LLC	<b>Permit Writer:</b>	David D. Abusah
<b>Permit Number:</b>	CM-2060-0056	<b>Date:</b>	December 10, 2008

**DATE APPLICATION RECEIVED:** October 24, 2008

**DATE OF LAST INSPECTION:** October 10, 2007. At the time of inspection, no violations of permit requirements or applicable regulations were observed.

**FACILITY DESCRIPTION:** This facility is a bulk storage and distribution of petroleum distillates such as gasoline and fuel oils. The facility receives all petroleum products via Colonial Pipeline and distributes them by transfer trucks. The primary sources of emissions are the storage tanks and loading rack. A vapor combustion unit controls emissions from the loading rack.

**PROJECT DESCRIPTION:** This review involve renewal of the facility's CM operating permit and update of Part 7.B. (Exempt Sources).The facility have requested that unit ID 07 (Additive Storage Tank) be listed as exempt source in accordance with SC Regulation 61-62.1, Section II (B)(2)h.

**CHANGES SINCE LAST OP ISSUANCE:**

1. April 19, 2004 remove VOC and HAP reporting requirement and update throughput reporting to require 12 month rolling sums of throughput to be reported annually.
2. June 23, 2004 change SIC code from 5171 to 4226 to reflect the terminal's business activities more accurately.
3. August 12, 2005 change condition 6.B.3 from having a daily checklist to having a weekly checklist.
4. July 31, 2008 incorporate the modifications done to unit ID 05 (Tank No. 302) into the facility's CM permit in accordance with Construction Permit number 2060-0056-CB.
5. June 19, 2008 modify the CM operating permit to incorporate emission rate changes due to recent updates to AP-42 Chapter 7 regarding landing losses from storage tanks and recently published American Petroleum Institute (API) tank cleaning emission methods. Exempt Sources list (Part 7.B of the CM permit) was also modified to incorporate equipments A & B. Environmental Contact person information was also revised.

**SOURCE TEST REQUIREMENTS:** Test would be conducted on Unit ID 01 in accordance with 40 CFR 60.503 and SC Regulation 61-62.1, Section IV to determine compliance with VOC emission factor of 15 mg/L of product loaded for VCU.

**SPECIAL CONDITIONS, MONITORING, LIMITS:** Facility has not been required to maintained and submit facility wide VOC and HAP emission reports since these emissions are tied to the loading rack throughput. Therefore a 12-month rolling sum throughput records shall be adequate to ensure that emissions are below the major source threshold at the facility's current maximum throughput. This determination will be reviewed whenever facility throughput has increased. Facility will be required to re-submit throughput rate emission calculations whenever there are changes in AP-42 emission factors.

**PUBLIC NOTICE:** Facility has requested for renewal of their CM Operating Permit; the draft permit would be public noticed in accordance with S.C. Regulation 61-62.1, Section II (N).

**EMISSIONS**

UNCONTROLLED POTENTIAL EMISSIONS (PROJECT ONLY)				
ID	Pollutant	lb/hr	TPY	Method for Estimating Emissions
01	PM/PM <sub>10</sub>	0.700	3.066	AP-42, 5 <sup>th</sup> Edition, Section 1.5, Table 1.5-1 & Engineering Calculations
	SO <sub>2</sub>	9.36E-03	0.041	
	NO <sub>2</sub>	7.601	33.29	
	CO	4.385	19.21	
	VOC	193.24	846.38	
	Total HAP	4.676	20.482	
	Benzene	1.024	4.486	
	Ethyl Benzene	0.0774	0.339	
	Hexane	0.928	4.063	
	Iso-Octane	1.159	5.078	
	Cumene	0.0193	0.0846	
	Toluene	1.1402	4.994	



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<b>UNCONTROLLED POTENTIAL EMISSIONS (PROJECT ONLY)</b>				
ID	Pollutant	lb/hr	TPY	Method for Estimating Emissions
02	Xylenes	0.309	1.354	US EPA Tanks 4.0.9d
	VOC	16.90	74.02	
	Total HAP	0.410	1.796	
	Benzene	0.0905	0.396	
	Ethyl Benzene	7.48E-03	0.033	
	Hexane	0.08414	0.369	
	Iso-Octane	0.0934	0.409	
	Cumene	1.56E-03	6.83E-03	
	Toluene	0.104	0.456	
	Xylenes	0.0319	0.140	
03	VOC	13.15	57.60	US EPA Tanks 4.0.9d
	Total HAP	0.330	1.445	
	Benzene	0.0709	0.311	
	Ethyl Benzene	6.12E-03	0.027	
	Hexane	0.0636	0.279	
	Iso-Octane	0.0792	0.347	
	Cumene	1.33E-03	5.83E-03	
	Toluene	0.082	0.359	
	Xylenes	0.0264	0.115	
04	VOC	22.39	98.07	US EPA Tanks 4.0.9d
	Total HAP	0.540	2.365	
	Benzene	0.1196	0.522	
	Ethyl Benzene	9.50E-03	0.042	
	Hexane	0.1077	0.472	
	Iso-Octane	0.1258	0.551	
	Cumene	1.93E-03	8.45E-03	
	Toluene	0.135	0.591	
	Xylenes	0.0403	0.177	
05	VOC	21.20	92.86	US EPA Tanks 4.0.9d
	Total HAP	0.520	2.278	
	Benzene	0.1135	0.497	
	Ethyl Benzene	9.05E-03	0.040	
	Hexane	0.1022	0.448	
	Iso-Octane	0.1258	0.551	
	Cumene	1.85E-03	8.10E-03	
	Toluene	0.129	0.565	
	Xylenes	0.0384	0.168	
06	VOC	0.37	1.621	US EPA Tanks 4.0.9d
	Total HAP	0.055	0.241	
	Benzene	2.60E-03	0.011	
	Ethyl Benzene	7.63E-03	0.033	
	Hexane	5.20E-03	0.023	
	Toluene	0.024	0.105	
	Xylenes	0.0155	0.068	



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**CONTROLLED POTENTIAL EMISSIONS (PROJECT ONLY)**

ID	Pollutant	lb/hr	TPY	Method for Estimating Emissions
01	VOC	13.705	60.03	AP-42, 5 <sup>th</sup> Edition, Section 1.5, Table 1.5-1 & Engineering Calculations
	Total HAP	0.332	1.453	
	Benzene	0.0726	0.318	
	Ethyl Benzene	5.48E-03	0.024	
	Hexane	0.0658	0.288	
	Iso-Octane	0.0822	0.360	
	Cumene	1.37E-03	6.00E-03	
	Toluene	0.0808	0.354	
	Xylenes	0.0219	0.096	

**FACILITY WIDE EMISSIONS**

Pollutant	Uncontrolled Emissions	Controlled Emissions
	TPY	TPY
PM/PM <sub>10</sub>	3.066	N/A
SO <sub>2</sub>	0.041	N/A
NO <sub>2</sub>	33.29	N/A
CO	19.21	N/A
VOC	1170.55	60.03
Total HAP	28.612	1.453
Benzene	6.226	0.318
Ethyl Benzene	0.514	0.024
Hexane	5.653	0.288
Iso-Octane	6.938	0.360
Cumene	0.114	6.00E-03
Toluene	7.074	0.354
Xylenes	2.019	0.096

**PROJECT REGULATORY APPLICABILITY REVIEW**

Regulation	Applicable		Comments
	Yes	No	
<b>South Carolina Regulation 61-62.1 through 62.99: Air Pollution Regulations (PROJECT ONLY)</b>			
<b>Section II(E): Synthetic Minor</b>		X	Facility does not hold Synthetic Minor Construction permit.
<b>Section II(G): Conditional Major</b>	Y		The facility already is a Conditional Major and holds a Conditional Major permit. The facility has taken limits on gasoline and distillate throughputs through the loading racks of 180,000,000 gallons per year for each product to bring their actual emissions of VOC below 100 TPY The permit is being renewed.
<b>Standard 1: Fuel Burning Operations</b>		X	The process does not involved fuel burning sources subject to this standard.
<b>Standard 2: Ambient Air Quality Standards</b>	Y		Facility has demonstrated compliance through modeling, see modeling summary dated October 5, 2009.
<b>Standard 3: Waste Combustion/Reduction (state only)</b>	Y		The VCU is an industrial incinerator and is subject to 20% Opacity and 0.5 lb/million BTU PM limit.
<b>Standard 3.1: HMI Waste Incinerators</b>		X	The project does not involved medical/infectious waste incineration



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**PROJECT REGULATORY APPLICABILITY REVIEW**

Regulation	Applicable		Comments
	Yes	No	
<b>Standard 4:</b> Emissions from Process Industries		X	The VCU is subject to Standard 3 which is more stringent than Standard 4. The standard 4 limit will not be applied.
<b>Standard 5:</b> Volatile Organic Compounds	Y		Unit ID 01 is subject to this Standard, Part T; Bulk Gasoline Terminals and Vapor Collection Systems within emission limit of 15 mg/liter gasoline loaded (The facility requested a limit of 15 mg/liter of gasoline loaded from 80 mg/liter for VCU to limit benzene emissions below de-minimis level). Unit IDs 02 and 04 are also subject to Part P of this standard Unit ID 06 is subject to Part O of this standard.
<b>Standard 5.1:</b> BACT/LAER For VOC (state only)		X	The facility was constructed before July 1, 1979. Facility has taken federally enforceable limit on VOC to be less than 100 TPY. Therefore, facility is not subject to LAER at this time.
<b>Standard 5.2:</b> Control of Oxides of Nitrogen		X	Unit ID 01 was permitted to construct before 06/25/2004.
<b>Standard 7:</b> Prevention of Significant Deterioration		X	The facility's PTE for PSD determination for VOCs is less than 250 TPY; therefore the facility is not major for PSD. The 250 TPY limit is used because the petroleum storage capacity is 166,000 barrels which is less than 300,000 barrels. The PTE is determined using the federally enforceable control device (VCU) per 40 CFR 60 Subpart XX. Using the control device, the PTE for the facility is less than 100 TPY for VOC
<b>Standard 7(c):</b> Ambient Air Increments	Y		Facility has demonstrated compliance through modeling, see modeling summary dated October 5, 2009.
<b>Standard 7.1:</b> Standards for Non Attainment Areas		X	This facility is not located in a Non-Attainment area.
<b>Standard 8:</b> Toxic Air Pollutants (state only)	Y		Facility has demonstrated compliance through modeling, see modeling summary dated October 5, 2009.
<b>Regulation 61-62.6:</b> Control of Fugitive Particulate Matter		X	This project does not have fugitive PM (Dust) emissions.
<b>Regulation 61-62.60:</b> SC Designated Facility Plan and NSPS	Y		Unit ID 01 is subject to NSPS Subparts XX. Since the VCU control VOC emission due to gasoline from the Loading Rack, the VCU is also subject to Subpart XX of this standard. Unit ID 03 is subject to NSPS Subpart K of this standard. Unit ID 03 was modified in 2004 which results in emission decrease; the modification project itself does not qualify as a reconstruction project in accordance with NSPS regulations. Unit ID 05 is subject to NSPS Subparts Kb of this standard.
<b>Regulation 61-62.61:</b> NESHAP		X	This facility does not contain any process/operations that emit the pollutants subject to this standard (asbestos, beryllium, coke oven emissions, arsenic, mercury, radio nuclei, radon or vinyl chloride) except benzene. However, the facility has requested a limit of 15 mg/liter of gasoline loaded for VCU to limit benzene emissions to below de-minimis level.
<b>Regulation 61-62.63:</b> NESHAP For Source Categories		X	Facility's controlled HAP emissions are less than 10 TPY for a single HAP and 25 TPY for total HAP therefore not subject to this regulation based on Subpart R {National Emission Standards For Gasoline Distribution Facilities (Bulk Gasoline Terminals And Pipeline Breakout Stations)}.
<b>Regulation 61-62.68:</b> Chemical Accident Prevention		X	This facility does not store or use chemicals subject to 112(r) above the threshold quantities.



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**PROJECT REGULATORY APPLICABILITY REVIEW**

Regulation	Applicable		Comments
	Yes	No	
<b>Regulation 61-62.70:</b> Title V		X	The facility's PTE for Title V determination is greater than the major source thresholds. The facility has taken limits on gasoline and distillate throughputs through the loading rack of 180,000,000 gallons per year each, to bring their actual VOC emissions below the thresholds.
<b>Regulation 61-62.72:</b> Acid Rain		X	The facility is not a utility unit.
<b>Regulation 61-62.96:</b> Nitrogen Oxides (NO <sub>x</sub> ) Budget Trading Program		X	The facility does not participate in NO <sub>x</sub> emissions trading.
<b>Regulation 61-62.99:</b> Nitrogen Oxides (NO <sub>x</sub> ) Budget Program Requirements for Stationary Sources Not In the Trading Program		X	This requirement applies to Kiln only.

**Federal Regulations (PROJECT ONLY)**

NSPS (Part 60) Subpart(s)	Y		Unit ID 01 is subject to NSPS Subparts XX since the VCU control VOC emission due to gasoline from the Loading Rack. Unit ID 03 is subject to NSPS Subpart K of this standard. Unit ID 03 was modified in 2004 which results in emission decrease; the modification project itself does not qualify as a reconstruction project in accordance with NSPS regulations. Unit ID 05 is subject to NSPS Subparts Kb of this standard.
NESHAP (Part 61) Subpart(s)		X	This facility does not contain any process/operations that emit the pollutants subject to this standard (asbestos, beryllium, coke oven emissions, arsenic, mercury, radio nuclei, radon or vinyl chloride) except benzene. However, the facility has requested a limit of 15 mg/liter of gasoline loaded for VCU to limit benzene emissions to below de-minimus level.
MACT (Part 63) Subpart(s)		X	This facility is minor for HAP, therefore not subject to Subpart R.
Area Source Standards (Part 63) Subpart(s)	Y		The facility is subject to Area Source MACT Subparts BBBBBB and the compliance date is January 10, 2011.
Compliance Assurance Monitoring (CAM) (Part 64)		X	Not a Title V facility

**SUMMARY AND CONCLUSIONS**

It has been determined that this source, if operated in accordance with the submitted application, will meet all applicable requirements and emission standards.