



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

Company Name:	BP Products North America, Inc. – North Augusta Terminal	Permit Writer:	David D. Abusah
Permit Number:	CM-0980-0014	Date:	DRAFT

DATE APPLICATION RECEIVED: February 4, 2009

DATE OF LAST INSPECTION: December 30, 2008. At the time of inspection, no violations of permit requirements or applicable regulations were observed.

FACILITY DESCRIPTION: BP Products North America, Inc. operates a bulk petroleum products marketing terminal in North Augusta, South Carolina. The facility is a petroleum storage facility that handles and distributes gasoline/ethanol and distillate fuels. Fuel additives that are received by truck are mixed into fuels at the loading rack. Emission from the loading rack is controlled by John Zink Carbon Absorption/Gasoline Adsorption Vapor Recovery Unit (VRU).

PROJECT DESCRIPTION: This project is to renew CM Operating Permit and to incorporate a construction permit 0980-0014-CD into the facility's CM Operating Permit. The facility has only one (1) loading rack which is unit ID 01. Unit ID 09 was referring to the same loading rack therefore unit ID 09 is being voided in the CM Operating Permit renewal.

CHANGES SINCE LAST OP ISSUANCE: The following changes were made at the facility since the last CM Operating Permit was issued:

1. On November 9, 2007, BAQ received a request from the facility to add language to the permit to allow for the storage of distillate and denatured ethanol in tanks #101, #102, #103 and #106; which were previously permitted to store only gasoline. The facility also requested to change the VOC limit of 35 mg/liter of gasoline loaded to 30 mg/liter of gasoline/ethanol loaded for the vapor recovery system. The environmental contact information and facility billing address were also changed. Exempt source list was also updated to reflect the current status of the facility.
2. On April 25, 2008, BAQ received a request from the facility to incorporate Construction Permit 0980-0014-CC into their CM Operating Permit. Exempt source list was also updated to reflect the current status of the facility.
3. On June 19, 2008, facility was issued a Construction Permit to convert Unit ID 06 (Tank 105) from Vertical Fixed Roof to Internal Floating Roof (IFR) and to allow the storage of any refine petroleum product or denatured ethanol in Unit ID 06 in accordance with Construction Permit 0980-0014-CD.

SOURCE TEST REQUIREMENTS: A source test is required to 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 30 mg/L of product loaded using VRU as control device.

PUBLIC NOTICE: Facility has requested for renewal of their CM Operating Permit; the draft permit will 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	VOC	541.01	2369.624	AP-42, 5 th Edition & Engineering Calculations
	Total HAP	29.37	128.641	
	Hexane	21.42	93.831	
	Benzene	1.515	6.636	
	Toluene	2.543	11.138	
	Iso-Octane	2.813	12.321	
	Xylenes	0.780	3.416	
	Ethyl Benzene	0.216	0.946	
02	Cumene	0.015	0.0647	US EPA Tanks 4.0.9d
	VOC	0.2064	0.9039	



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UNCONTROLLED POTENTIAL EMISSIONS (PROJECT ONLY)

ID	Pollutant	lb/hr	TPY	Method for Estimating Emissions
	Total HAP	0.0112	0.0491	
	Hexane	8.17E-03	0.0358	
	Benzene	5.82E-04	2.55E-03	
	Toluene	9.70E-04	4.25E-03	
	Iso-Octane	1.07E-03	4.70E-03	
	Xylenes	3.31E-04	1.45E-03	
	Ethyl Benzene	7.99E-05	3.50E-04	
	Cumene	1.14E-05	5.00E-05	
03	VOC	0.2063	0.9034	US EPA Tanks 4.0.9d
	Total HAP	0.0112	0.0491	
	Hexane	8.17E-03	0.0358	
	Benzene	5.82E-04	2.55E-03	
	Toluene	9.70E-04	4.25E-03	
	Iso-Octane	1.07E-03	4.70E-03	
	Xylenes	3.31E-04	1.45E-03	
	Ethyl Benzene	7.99E-05	3.50E-04	
04	VOC	0.2064	0.9039	US EPA Tanks 4.0.9d
	Total HAP	0.0112	0.0491	
	Hexane	8.17E-03	0.0358	
	Benzene	5.82E-04	2.55E-03	
	Toluene	9.70E-04	4.25E-03	
	Iso-Octane	1.07E-03	4.70E-03	
	Xylenes	3.31E-04	1.45E-03	
	Ethyl Benzene	7.99E-05	3.50E-04	
05	VOC	0.1620	0.7095	US EPA Tanks 4.0.9d
	Total HAP	0.0236	0.1034	
	Hexane	2.44E-03	0.0107	
	Benzene	1.13E-03	4.95E-03	
	Toluene	0.0105	0.0458	
	Xylenes	6.14E-03	0.0269	
	Ethyl Benzene	3.22E-03	0.0141	
	Naphthalene	2.28E-04	1.00E-03	
06	VOC	0.5861	2.5672	US EPA Tanks 4.0.9d
	Total HAP	0.0318	0.1394	
	Hexane	0.0232	0.1015	
	Benzene	1.64E-03	7.20E-03	
	Toluene	2.76E-03	0.0121	
	Iso-Octane	3.06E-03	0.0134	
	Xylenes	9.36E-04	4.10E-03	
	Ethyl Benzene	2.40E-04	1.05E-03	
07	VOC	2.7871	12.2077	US EPA Tanks 4.0.9d
	Total HAP	0.1514	0.6630	
	Hexane	0.1103	0.4832	
	Benzene	7.81E-03	0.0342	
	Toluene	0.0131	0.0574	
	Iso-Octane	0.0145	0.0635	



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UNCONTROLLED POTENTIAL EMISSIONS (PROJECT ONLY)

ID	Pollutant	lb/hr	TPY	Method for Estimating Emissions
	Xylenes	4.47E-03	0.0196	AP-42, 5 th Edition & Engineering Calculations. Emission factors are based on Protocol for Equipment Leak Emission Estimates; published in December 1995
	Ethyl Benzene	1.12E-03	4.90E-03	
	Cumene	7.99E-05	3.50E-04	
Fugitive Emissions	VOC	0.1266	0.5544	
	Total HAP	6.87E-03	0.0301	
	Hexane	5.00E-03	0.0219	
	Benzene	3.54E-04	1.55E-03	
	Toluene	5.95E-04	2.61E-03	
	Iso-Octane	6.59E-04	2.89E-03	
	Xylenes	2.02E-04	8.85E-04	
	Ethyl Benzene	5.02E-05	2.20E-04	
	Cumene	3.43E-06	1.50E-05	

CONTROLLED POTENTIAL EMISSIONS (PROJECT ONLY)

ID	Pollutant	lb/hr	TPY	Method for Estimating Emissions
01	VOC	12.145	53.195	AP-42, 5 th Edition & Engineering Calculations
	Total HAP	0.660	2.891	
	Hexane	0.481	2.107	
	Benzene	0.034	0.149	
	Toluene	0.057	0.250	
	Iso-Octane	0.063	0.276	
	Xylenes	0.019	0.083	
	Ethyl Benzene	4.87E-03	0.021	
	Cumene	3.65E-04	1.60E-03	

FACILITY WIDE EMISSIONS

Pollutant	Uncontrolled Emissions	Controlled Emissions
	TPY	TPY
VOC	2,418.59	53.195
Total HAP	131.72	5.52
Hexane	95.62	3.74
Benzene	6.79	0.27
Toluene	11.66	0.58
Iso-Octane	12.56	0.49
Xylenes	3.99	0.18
Ethyl Benzene	1.03	0.052
Cumene	0.072	0.003
Naphthalene	0.005	0.001



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PROJECT REGULATORY APPLICABILITY REVIEW

Regulation	Applicable		Comments
	Yes	No	
South Carolina Regulation 61-62.1 through 62.99: Air Pollution Regulations (PROJECT ONLY)			
Section II(E): Synthetic Minor		X	This is a renewal of the facility's Conditional Major Operating permit. The facility has taken federally enforceable limits (30 mg/l of product loaded) of gasoline/ethanol and distillate throughputs through the loading racks to bring their potential emissions of VOC to below 100 TPY.
Section II(G): Conditional Major	Y		The facility already is a Conditional Major and holds a Conditional Major permit. The facility has taken limits on gasoline/ethanol and distillate throughputs through the loading racks of 425,000,000 and 300,000,000 gallons per year respectively, to bring their potential emissions of VOC below 100 TPY and 10TPY/25YPY for single HAP/Total HAP.
Standard 1: Fuel Burning Operations		X	The process does not involved fuel burning sources subject to this standard.
Standard 2: Ambient Air Quality Standards		X	The facility does not emit any of the regulated pollutants except VOC which does not require modeling.
Standard 3: Waste Combustion/Reduction (state only)		X	This process does not contain waste combustion or reduction sources.
Standard 3.1: HMI Waste Incinerators		X	The project does not involved medical/infectious waste incineration
Standard 4: Emissions from Process Industries	Y		The processes in unit ID 01& 06 are subject to 20% opacity limit and processes in unit ID 02,03,04,05 and 07 are subject to 40% opacity limit of this standard.
Standard 5: Volatile Organic Compounds	Y		The Loading Rack (01) is subject to this Standard, Part T; Bulk Gasoline Terminals and Vapor Collection Systems within emission limit of 80 mg/liter gasoline loaded. This standard is applicable to gasoline, but since VOC emission from both gasoline and ethanol are controlled using VRU, this standard is also applicable to ethanol. Unit IDs 02, 03, 04, & 07 are subject to Part O - Petroleum Liquid Storage in Fixed Roof Tanks because they were previously external floating roof tanks which have been fitted with a geodesic dome. The dome for each tank is fixed and does not move with fluctuations in storage level and therefore does not meet the definition of an external floating roof. Unit ID 05 is not subject to Part O because the tank store fuels with a true vapor pressure < 1.52 psia. Unit ID 06 is not subject to Part O of this standard because prior to its modification in 2008, the tank stored fuels with a true vapor pressure < 1.52 psia.
Standard 5.1: 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.
Standard 5.2: Control of Oxides of Nitrogen		X	Source was permitted to construct before 06/25/2004.



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PROJECT REGULATORY APPLICABILITY REVIEW

Regulation	Applicable		Comments
	Yes	No	
Standard 7: 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 275,452 barrels, which is less than 300,000 barrels. The PTE is determined using the federally enforceable control device (VRU) per 40 CFR 60 Subpart XX. Using the control device, the PTE for the facility is less than 100 TPY for VOC and 10/25 TPY for HAP
Standard 7(c): Ambient Air Increments		X	This facility does not emit any "Baseline pollutants".
Standard 7.1: Standards for Non Attainment Areas		X	This facility is not located in a Non-Attainment area.
Standard 8: Toxic Air Pollutants (state only)	Y		This facility has demonstrated compliance through modeling; see modeling summary dated April 9, 2009. No operational restriction has been established to ensure compliance with the modeled emission rates.
Regulation 61-62.6: Control of Fugitive Particulate Matter		X	This project does not have fugitive PM (Dust) emissions.
Regulation 61-62.60: SC Designated Facility Plan and NSPS	Y		Unit ID 01 is subject to NSPS Subparts XX. This standard is applicable because the VRU would be used to control VOC emissions due to gasoline and ethanol loaded in the Loading Rack which is subject to this subpart. Unit ID 07 is subject to Subpart K because it has capacity greater than 65,000 gallons and commenced construction after June 11, 1973, and prior to May 19, 1978. Unit ID 06 is subject to Subpart Kb because it stores a VOL with a true vapor pressure at 49 kPa and was modified after July 23, 1984.
Regulation 61-62.61: NESHAP		X	This facility does not contain any process/operations that emit the pollutants subject to this standard (asbestos, benzene, beryllium, coke oven emissions, arsenic, mercury, radio nuclei, radon or vinyl chloride)
Regulation 61-62.63: 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.
Regulation 61-62.68: Chemical Accident Prevention		X	This facility does not store or use chemicals subject to 112(r) above the threshold quantities.
Regulation 61-62.70: 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/ethanol and distillate throughputs through the loading rack of 425,000,000 and 300,000,000 gallons per year respectively, to bring their potential VOC and HAP emissions below the thresholds.
Regulation 61-62.72: Acid Rain		X	The facility is not a utility unit.
Regulation 61-62.96: Nitrogen Oxides (NO _x) Budget Trading Program		X	The facility does not participate in NO _x emissions trading.
Regulation 61-62.99: Nitrogen Oxides (NO _x) Budget Program Requirements for Stationary Sources Not In the Trading Program		X	This requirement applies to Kiln only.



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PROJECT REGULATORY APPLICABILITY REVIEW

Regulation	Applicable		Comments
	Yes	No	
Federal Regulations (PROJECT ONLY)			
NSPS (Part 60) Subparts A and XX	Y		Unit ID 01 is subject to NSPS Subparts XX. This standard is applicable because the VRU would be used to control VOC emissions due to gasoline and ethanol loaded in the Loading Rack which is subject to this subpart. Unit ID 07 is subject to Subpart K because it has capacity greater than 65,000 gallons and commenced construction after June 11, 1973, and prior to May 19, 1978. Unit ID 06 is subject to Subpart Kb because it stores a VOL with a true vapor pressure at 49 kPa and was modified after July 23, 1984.
NESHAP (Part 61) Subpart(s)		X	This facility does not contain any process/operations that emit the pollutants subject to this standard (asbestos, benzene, beryllium, coke oven emissions, arsenic, mercury, radio nuclei, radon or vinyl chloride)
MACT (Part 63) Subpart(s)		X	The facility's uncontrolled HAP is greater than 10TPY for single HAP and 25 TPY for total HAP. However, the facility has taken limits on HAP to be <10/25 TPY. Therefore the facility is minor for HAP and not subject to Subpart R of this standard.
Area Source Standards (Part 63) Subparts A and BBBBBB	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.