



**west virginia** department of environmental protection

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**ENGINEERING EVALUATION / FACT SHEET**

BACKGROUND INFORMATION

Application No.: R13-2896  
Plant ID No.: 051-00142  
Applicant: Dominion Natrium, LLC (Dominion)  
Facility Name: Natrium Extraction and Fractionation Processing Plant (NPP)  
Location: Proctor, Marshall County  
SIC Code: 1321  
NAICS Code: 211112  
Application Type: Construction  
Received Date: August 23, 2011  
Engineer Assigned: Jerry Williams, P.E.  
Fee Amount: \$4,500.00  
Date Received: August 23, 2011  
Complete Date: September 19, 2011  
Due Date: December 18, 2011  
Applicant Ad Date: August 25, 2011  
Newspaper: *Moundsville Daily Echo*  
UTM's: Easting: 512.106 km      Northing: 4400.826 km      Zone: 17  
Description: Construction of a natural gas extraction/fractionation plant.

DESCRIPTION OF PROCESS

The following process description was taken from Permit Application R13-2896:

Dominion plans to construct a new natural gas extraction and fractionation plant located in Natrium, WV. The natural gas capacity of the plant is 400 million standard cubic feet per day (MMSCFD).

The plant will extract natural gas liquids (NGL) from natural gas received via pipeline, and import NGL by truck from other liquids extraction processing facilities nearby. The plant will be designed so that residue gas and propane can be transported into pipeline, as well as designing provisions for future transport of ethane via pipeline. Propane, i-butane, n-butane and natural gasoline will be shipped by rail car, truck, and/or barge. In addition, there are 6 inlet

compressors each rated at 6,500 HP and 6 residue compressors each rated at 6,500 HP. They are all electric. The proposed equipment at the plant will include the following:

1. One (1) Hot Oil Heater. The heater is used to heat oil, which is used as a transfer medium, for the purpose of providing the energy for the physical processes of extracting and fractionating the NGL. The hot oil heater is used to create heat for the deethanizer tower, depropanizer, debutanizer and drip gas fractionation. The heat provided by the hot oil heater aides in the fractionation process. The heater has a maximum heat rate of 216.7 MMBtu/hr.
2. One (1) Atmospheric Natural Gasoline Storage Tank. The capacity of the tank is approximately 17,000 barrels. The material stored has a Reid Vapor pressure of 12. Throughput capacity is approximately 3,750 barrels per day. The vent from this tank is routed to the plant flare, therefore there are no direct emissions from this tank, and the emissions are accounted for in the flare.
3. Four (4) Pressurized Storage Tanks. Recovered products will be stored in one of four pressurized tanks; Propane, Isobutane, Normal Butane or NGL. The storage tanks are horizontal pressure tanks that will operate at a pressure well above 30 psia. Therefore, these tanks are not subject to 40CFR60 Subpart Kb. These tanks will be operated as closed systems and will not vent to the atmosphere under normal storage conditions or during routine loading and withdrawal. The tanks are equipped with pressure relief devices that will open only in the event of an emergency or during non-routine maintenance to relieve excess gas. The pressure relief devices will be vented to the Emergency and Maintenance Flare.
4. Slop Oil Tank. The slop oil tank will contain liquid waste streams from the processing of NGL. The tank capacity is 500 barrels (approx. 20,000 gal.). Although it would hold a mixture of low volatile compounds, since it will also contain natural gasoline, the vapor of natural gasoline was used to determine applicability of 40CFR60 Subpart Kb. Based on the vapor pressure of natural gasoline, the tank could be subject. However, the tank meets the definition of a condensate tank prior to custody transfer and therefore is exempt from subpart Kb per 40CFR60.110b(d)(4). The tank will not vent to the atmosphere as the vapors will be sent to the flare.
5. Loading Station (Truck, Rail, Barge). From the storage tanks, the product (propane, isobutene, normal butane, NGL) will be loaded into vessels. The VOC vapors associated with the loading vessels will be returned back to the appropriate storage vessel and recovered. For the pressure tanks, the only venting of these units will be during emergency situations or non-routine maintenance, where the emissions will be vented to the Emergency and Maintenance Flare. There may also be negligible VOC losses from the loading operation during the disconnection of the unloading hoses to the trucks. These losses are assumed insignificant.
6. One (1) Flare. Dominion will install a flare to control VOC emissions from normal venting of the NGL tank, emergency venting of certain process equipment and during various maintenance activities. The flare pilot will be operated continuously. Only emissions from normal venting and worst case non-routine maintenance activities are

included. As stated, normal venting is from the NGL tank and worst case non-routine maintenance emissions would occur during blow down of the cold section of the plant.

7. Two (2) Firewater Pump Diesel Engines. Dominion will install two (2) emergency firewater pumps, limited to 500 hours/year each, to provide sufficient pressure to meet the hydraulic design requirements of the fire sprinkler system. Each pump will be a rated capacity of 700 hp at 1,750 rpm. Each fire pump will have its own diesel fuel tank and these tanks are considered de-minimis sources with negligible emissions.
8. One (1) Glycol Dehydration System. A glycol dehydration system (TEG) is used to dry the incoming gas. The emission vent from this system will be routed to the fuel gas system and combusted in the hot oil burner. Also, there are two (2) TEG storage tanks associated with the glycol system. The vapor pressure of TEG at maximum storage temperatures is less than 0.0002 psia and no emissions from the tanks are expected. Therefore, there are no direct emissions for the glycol dehydration system.
9. Amine Contacting and Regeneration System. Carbon dioxide will be removed from the ethane product in an amine contacting system. The total ethane product is contacted with diethylamide (DEA) solution in the Amine Contactor where the CO<sub>2</sub> in the ethane product is removed to less than 500 ppmw. The rich amine from the Contactor is regenerated in the Amine Regenerator where the heat input is used to drive the CO<sub>2</sub> and water overhead and vented to the atmosphere. The lean amine from the bottom of the regenerator is then recycled back to the Amine Contactor. The main emissions from the amine system are CO<sub>2</sub> and water. There will be trace amounts of propane, estimated at less than 0.01 tons per year.
10. Miscellaneous Storage Tanks. There are 17 miscellaneous storage tanks associated with the facility.
11. Process Piping VOC Fugitive Emissions. There is a potential for VOC emissions from leaks from the various process piping components. The facility will be subject to 40CFR60 Subpart KKK that addresses equipment leaks from on-shore natural gas processing facilities. Subpart KKK requires a leak detection and repair program per Subpart VV for certain components. Emission factors from "Protocol for Equipment Leak Emission Estimates", EPA-453/R-95-017 were utilized.

## SITE INSPECTION

A site inspection was conducted by the writer on October 20, 2011. The writer did not see any problems with locating the facility at the proposed site.

Directions are as follows:

*From Charleston I-77N to Exit 179 to WV Route 2. Travel approximately 53 miles north on WV Route 2. Facility is located at 14787 Energy Road, Proctor, WV.*

ESTIMATE OF EMISSIONS BY REVIEWING ENGINEER

Emissions associated with this permit will consist of a hot oil heater, two (2) fire pumps, a flare, a glycol dehydration system, an amine system, fugitive emissions from equipment leaks and miscellaneous storage tanks. The estimated emission calculations were performed by Dominion and checked for accuracy and completeness by the writer. The following tables include the emission source, and controlled emission rate:

Emission Point ID#	Source	Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (tpy)
P001	216.7 MMBTU/hr Hot Oil Heater	Nitrogen Oxides	5.63	16.23
		Carbon Monoxide	3.25	9.36
		Particulate Matter-10	1.61	4.65
		Sulfur Dioxide	0.13	0.37
		Volatile Organic Compounds	0.37	1.06
		Hazardous Air Pollutants	NA	1.15
		Carbon Dioxide	25,277	72,817
		Methane	0.48	0.63
P002	700 HP Fire Pump	Nitrogen Oxides	5.31	1.33
		Carbon Monoxide	2.18	0.55
		Particulate Matter-10	0.30	0.08
		Sulfur Dioxide	0.01	0.01
		Volatile Organic Compounds	0.08	0.02
		Carbon Dioxide	812	203
		Methane	0.04	0.01
P003	700 HP Fire Pump	Nitrogen Oxides	5.31	1.33
		Carbon Monoxide	2.18	0.55
		Particulate Matter-10	0.30	0.08
		Sulfur Dioxide	0.01	0.01
		Volatile Organic Compounds	0.08	0.02
		Carbon Dioxide	812	203

		Methane	0.04	0.01
P004	Normal, Emergency, Maintenance Flare	Nitrogen Oxides	13.42	5.08
		Carbon Monoxide	73.06	27.67
		Particulate Matter-10	ND	ND
		Sulfur Dioxide	ND	ND
		Volatile Organic Compounds	19.83	5.18
		Carbon Dioxide	22,949	8,364
		Methane	15.15	5.50
P005	Amine System	Volatile Organic Compounds	0.01	0.01
		Carbon Dioxide	687	3,010
Fugitive	Unpaved Haulroads	Particulate Matter-10	NA	1.89
Fugitive	Equipment Leaks	Volatile Organic Compounds	NA	21.3
		Hazardous Air Pollutants	NA	1.40

The heat input rating from the hot oil heater (P001) varies depending on operating conditions. The vendor has specified different heat input ratings based on a maximum short term rate, a short term rate with steam and without, and a long term rate (annual average). The emissions for this permit application were calculated using the maximum short term rate for the hourly emissions, and the weighted average long term rate for the annual emissions.

It should be noted that there are small HAP emissions from the hot oil heater (P001), the fire pumps (P002, P003), and the flare (P004). The most significant are 0.05 tons per year of formaldehyde emissions, and 2.5 tons per year of hexane emissions, which includes 1.41 tons per year of fugitive emissions for equipment leaks.

Emissions from the gasoline storage tank and slop oil storage tanks are included in the flare emissions.

Because the emission vent from the glycol dehydration system will be routed to the fuel gas system and combusted in the hot oil burner, the emissions are accounted for in the hot oil heater emissions.

The emissions from the product loading station (closed loop), the horizontal propane storage tank (US-800), the horizontal isobutane storage tank (US-801), the horizontal normal butane storage tank (US-804), and the horizontal NGL storage tank (US-805) are vented to the flare and will have no emissions except for emergency and non-routine maintenance venting.

The following table account for the greenhouse gases associated with this permit application:

Pollutant	Fire Pump #1	Fire Pump #2	Hot Oil Heater	Flare	Amine System	Total Emissions (tpy)
Carbon Dioxide	203	203	72,817	8,674	3,008	84,904
Methane	0.01	0.01	0.62	5.73	0	6.37
Nitrous Oxide	0	0	0.062	0.02	0	0.08
CO <sub>2</sub> e	203	203	72,849	8,799	3,008	85,062

The total facility emissions associated with this application are shown in the following table:

Pollutant	Total Facility Emissions (tons/year)
Nitrogen Oxides	23.94
Carbon Monoxide	37.97
Volatile Organic Compounds	27.31
Particulate Matter-10	6.65
Sulfur Dioxide	0.37
Total Hazardous Air Pollutants	2.56
CO <sub>2</sub> e	85,062

## REGULATORY APPLICABILITY

The following rules apply to the facility:

### **45CSR2** (Particulate Air Pollution from Combustion of Fuel in Indirect Heat Exchangers)

Dominion would be subject to the opacity requirements in 45CSR2, which is 10% opacity based on a six minute block average.

### **45CSR4** (To Prevent and Control the Discharge of Air Pollutants into the Open Air which Causes or Contributes to an Objectionable Odor or Odors)

45CSR4 states that an objectionable odor is an odor that is deemed objectionable when in the opinion of a duly authorized representative of the Air Pollution Control Commission (Division of Air Quality), based upon their investigations and complaints, such odor is objectionable. No odors have been deemed objectionable.

### **45CSR6** (To Prevent and Control Air Pollution from the Combustion of Refuse)

Dominion has a flare at the facility. The flare is subject to section 4, emission standards for incinerators. The flare has an allowable emission rate of 21.4 pounds of particulate matter per hour (assuming worst case scenario of draining of the cryogenic plant). The flare has negligible amounts of particulate matter per hour. Therefore, the facility's flare will demonstrate compliance with this section. The facility will demonstrate compliance by maintaining the amount of natural gas consumed by the flare and the hours of operation. The facility will also monitor the flame of the flare and record any malfunctions that may cause no flame to be present during operation. In addition, the facility will also monitor visible emissions from the flare on a monthly basis.

### **45CSR10** (To Prevent and Control Air Pollution from the Emissions of Sulfur Oxides)

The purpose of this rule is to establish standards for emissions of sulfur oxides from fuel burning units, manufacturing operations and gas streams.

45CSR10 classifies the hot oil heater (P001) as a 'type b' unit. The allowable SO<sub>2</sub> emission rate for the hot oil heater (P001) would be the product of 3.1 and the total design heat input of the heater (216.7 MMBTU/hr). This equates to a maximum allowable SO<sub>2</sub> emission rate of 671.77 lb/hr. According to Dominion's permit application, the proposed SO<sub>2</sub> emission rate is 0.13 lb/hr. Therefore, Dominion would meet this rule. Furthermore, 45CSR10A exempts fuel burning units that combust natural gas from testing and monitoring requirements.

### **45CSR13** (Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Administrative Updates, Temporary Permits, General Permits, and Procedures for Evaluation)

45CSR13 applies to this source due to the fact that Dominion exceeds the regulatory emission threshold for criteria pollutants of 6 lb/hr and 10 ton/year, and they are also

subject to a substantive requirement of an emission control rule promulgated by the Secretary (40CFR60 Subparts A, Db, Kb, KKK, and IIII).

**45CSR16** (Standards of Performance for New Stationary Sources Pursuant to 40 CFR Part 60)

45CSR16 applies to this source by reference of 40CFR60, Subparts A, Db, Kb, KKK, and IIII. Dominion is subject to the recordkeeping, monitoring, and testing required by 40CFR60 Subparts A, Db, Kb, KKK, and IIII.

**45CSR30** (Requirements for Operating Permits)

Dominion is a nonmajor source subject to 45CSR30.

**40CFR60 Subpart Db** (Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units)

This rule applies to steam generating units with a heat input capacity greater than 100 MMBTU/hr for which construction commenced after June 19, 1984. The 216.7 MMBTU/hr hot oil heater (P001) that Dominion proposes to install will be subject to this rule. This rule establishes an emission limit of 0.1 lb/MMBTU (21.6 lb/hr) for NO<sub>x</sub>. Dominion must adhere to the initial compliance testing for the NO<sub>x</sub> limit and all monitoring requirements (use of a CEM or approved predictive monitoring plan).

The hot oil heater (P001) is exempt from SO<sub>2</sub> emission standards pursuant to the low sulfur gaseous fuel exemption which states gaseous fuels fired by the emissions unit shall not exceed 0.32 lb of SO<sub>2</sub> per MMBTU of actual heat input, when combusting natural gas. The facility shall comply with the fuel analysis requirements to demonstrate compliance with the low sulfur fuel exemption.

**40CFR60 Subpart Kb** (Standards of Performance for Volatile Organic Liquid Storage Vessels)

The affected facility to which this subpart applies is each storage vessel with a capacity greater than or equal to 75 cubic meters (m<sup>3</sup>) (19,813 gallons) that is used to store volatile organic liquids (VOL) for which construction, reconstruction, or modification is commenced after July 23, 1984. This subpart does not apply to storage vessels with a capacity greater than or equal to 151 m<sup>3</sup> storing a liquid with a maximum true vapor pressure less than 3.5 kilopascals (kPa) or with a capacity greater than or equal to 75 m<sup>3</sup> but less than 151 m<sup>3</sup> storing a liquid with a maximum true vapor pressure less than 15.0 kPa. This subpart also does not apply to pressure vessels designed to operate in excess of 204.9 kPa and without emissions to the atmosphere.

The following table summarizes Dominion's tanks and their applicability to this rule.

Emission Unit ID	Material Stored	Design Capacity	Max. True Vapor Pressure (TVP)	Applicable to 40CFR60 Subpart Kb?
TK-802	Gasoline Storage Tank	17,000 BBL (714,000 gal)	12.32 psia (84.95 kPa)	Yes. Tank will have closed vent system and vapors will be sent to flare
US-800	Propane Storage Tank	51,000 BBL (2,142,000 gal)	GT 204.9 kPa	No. Pressure vessel in excess of 204.9 kPa.
US-801	Isobutane Storage Tank	20,600 BBL (865,200 gal)	GT 204.9 kPa	No. Pressure vessel in excess of 204.9 kPa.
US-804	Butane Storage Tank	20,600 BBL (865,200 gal)	GT 204.9 kPa	No. Pressure vessel in excess of 204.9 kPa.
US-805	NGL Storage Tank	20,600 BBL (865,200 gal)	GT 204.9 kPa	No. Pressure vessel in excess of 204.9 kPa.
TK-906	Slop Oil Tank	500 BBL (21,000 gal)	NA	No. Vessels with a design capacity less than or equal to 420,000 gal used for condensate prior to custody transfer. Will have closed vent system and vapors sent to flare.
TK-907	Produced Water Tank	1,500 BBL (63,000 gal)	NA	No. Non-volatile organic liquid.
TK-950	Firewater Tank	51,430 BBL (2,160,060 gal)	NA	No. Non-volatile organic liquid.
TK-605	TEG Storage Tank	1,000 gal	LT 0.00002 psia	No. Below Size.
TK-2605	TEG Storage Tank	1,000 gal	LT 0.00002 psia	No. Below Size.
TK-119A	Lube Oil Storage Tank	90 BBL (3,780 gal)	NA	No. Below Size.
TK-119B	Lube Oil Storage Tank	90 BBL (3,780 gal)	NA	No. Below Size.
TK-452	Spent Caustic Tank	500 BBL (21,000 gal)	NA	No. Non-volatile organic liquid.
TK-453	Caustic Tank	500 BBL (21,000 gal)	NA	No. Non-volatile organic liquid.

UT-909	Open Drain Sump (Oil/Water)	2,800 gal	NA	No. Below Size.
TK-2119A	Lube Oil Storage Tank	90 BBL (3,780 gal)	NA	No. Below Size.
TK-2119B	Lube Oil Storage Tank	90 BBL (3,780 gal)	NA	No. Below Size.
UT-2520	Amine Sump	2,800 gal	NA	No. Below Size.
TK-2524	Amine Storage Tank	100 BBL (4,200 gal)	NA	No. Below Size.
TK-2522	Treated Water Storage Tank	100 BBL (4,200 gal)	NA	No. Below Size.
UT-607	Glycol Sump (TEG/Water)	1,400 gal	NA	No. Below Size.
UT-2909	Open Drain Sump (Oil/Water)	2,800 gal	NA	No. Below Size.
TK-D1	Diesel Fuel Storage Tank	700 gal	NA	No. Below Size.
TK-D2	Diesel Fuel Storage Tank	700 gal	NA	No. Below Size.

The Natural Gasoline storage tank (TK-802) is the only tank subject to this rule.

**40CFR60 Subpart KKK** (Standards of Performance for Equipment Leaks of VOC from Onshore Natural Gas Processing Plants)

40CFR60 Subpart KKK applies to onshore natural gas processing plants that commenced construction after January 20, 1984. The NPP is subject to this rule due to the natural gas processing facility. Dominion must meet the LDAR requirements of Subpart KKK, which must be conducted in accordance with Subpart VV for equipment in VOC or wet gas service. This includes specific requirements, recordkeeping requirements, and reporting requirements.

**40CFR60 Subpart IIII** (Standards of Performance for Stationary Compression Ignition Internal Combustion Engines)

40CFR60 Subpart IIII sets forth emission limits, fuel requirements, installation requirements, and monitoring requirements based on the year of installation of the subject compression internal combustion engine. 40CFR60 Subpart IIII is applicable to owners and operators of new stationary compression ignition internal combustion engines manufactured after July 11, 2005. This rule applies to the two (2) 700 hp firewater pumps. The engines are certified National Fire Association engines with displacements less than 30 liters per cylinder. The emission limits for these 2008 year engines are NOx + NMHC – 7.80 g/hp-hr (12.04 lb/hr) and PM – 0.40 g/hp-hr (0.62 lb/hr).

Based on the manufacturer’s specifications for these engines, the emission standards will be met. Dominion will demonstrate compliance by either installing an engine certified to the emission standards in §60.4204(b), or §60.4205(b) or (c), as applicable, for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power.

The following regulations do not apply to the facility:

**45CSR14** (Permits for Construction and Major Modification of Major Stationary Sources of Air Pollutants)

**45CSR19** (Permits for Construction and Major Modification of Major Stationary Sources of Air Pollution which Cause or Contribute to Nonattainment)

<b>Pollutant</b>	<b>PSD (45CSR14) Threshold (tpy)</b>	<b>NANSR (45CSR19) Threshold (tpy)</b>	<b>NPP PTE (tpy)</b>	<b>45CSR14 or 45CSR19 Review Required?</b>
Carbon Monoxide	250	NA	37.97	No
Nitrogen Oxides	250	100	23.94	No
Sulfur Dioxide	250	100	0.37	No
Particulate Matter 10	250	NA	6.65	No
Ozone (VOC)	250	NA	27.31	No
Greenhouse Gas	100,000	NA	85,062	No

**40CFR63 Subpart JJJJJ** (National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources)

This rule applies to all existing and new industrial boilers, institutional boilers, and commercial boilers located at area sources. There are no requirements for natural gas fired units.

The following regulations may apply to the facility:

**40CFR63 Subpart HH** (National Emission Standards for Hazardous Air Pollutants: Oil and Natural Gas Production and National Emission Standards for Hazardous Air Pollutants: Natural Gas Transmission and Storage)

**40CFR63 Subpart ZZZZ** (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines)

40CFR63 contains applicable requirements to specific sources for major and area sources of HAP emissions. Major sources of HAP are defined as sources with the potential to emit greater than 10 tons/year of any individual HAP or 25 tons/year of any combination of HAPs. The NPP has potential HAP emissions below these values. Therefore, the NPP would be an area source (non-major) for NESHAP purposes.

WVDEP DAQ did not determine whether the permittee is subject to an area source air toxics standard requiring Generally Achievable Control Technology (GACT) promulgated after January 1, 2007 pursuant to 40 CFR 63, including the area source air toxics provisions of 40 CFR 63, Subpart HH and 40 CFR 63, Subpart ZZZZ.

These promulgated national emission standards for hazardous air pollutants (NESHAP) limit emissions of hazardous air pollutants (HAP) from oil and natural gas production and natural gas transmission and storage facilities. These final rules implement section 112 of the Clean Air Act (Act) and are based on the Administrator's determination that oil and natural gas production and natural gas transmission and storage facilities emit HAP identified on the EPA's list of 188 HAPs.

### TOXICITY OF NON-CRITERIA REGULATED POLLUTANTS

There will be small amounts of various non-criteria regulated pollutants emitted from the combustion of natural gas. However, due to the concentrations emitted, detailed toxicological information is not included in this evaluation.

### AIR QUALITY IMPACT ANALYSIS

The facility will not be a major source of HAP's as defined by 45CSR14. Based on the nature of the emissions and the annual emission rate, no air quality impact analysis was performed.

### SOURCE AGGREGATION

"Building, structure, facility, or installation" is defined as all the pollutant emitting activities which belong to the same industrial grouping, are located on one or more contiguous and adjacent properties, and are under the control of the same person.

1. The NPP will operate under SIC code 1321 (Natural Gas Liquid Extraction), while the existing Burch Ridge Compressor Station operates under SIC Code 4922 (Pipeline Transmission of Natural Gas). Therefore, the two (2) facilities do not belong to the same industrial grouping.
2. The NPP will be located approximately 5 miles from an existing Dominion compressor station called Burch Ridge. This is not considered to be on contiguous or adjacent property as Dominion does not own the land in between the facilities, and they are not mutually dependent.
3. Both the NPP and Burch Ridge are owned and operated by Dominion.

Because the facilities have different industrial groupings and they are not considered contiguous or adjacent properties, the emissions from these two (2) facilities should not be aggregated in determining major source or PSD status.

## MONITORING OF OPERATIONS

Dominion will be required to perform the following monitoring:

1. Monitor and record quantity of natural gas consumed for all combustion sources.
2. Monitor and record quantity of product throughput (NGL, propane, butane, natural gasoline).
3. Monitor the presence of the flare pilot flame with a thermocouple or equivalent.
4. Utilize a Continuous Emission Monitor (CEM) of approved predictive monitoring plan for the hot oil heater (P001).
5. Monitor the Gasoline Storage Tank (TK-802) to ensure that the tank will have a closed vent system and vapors will be sent to flare.
6. Establish a Leak Detection and Repair (LDAR) program for all equipment in VOC or wet gas service according to 40CFR60 Subparts KKK and VV.
7. Maintain records of all applicable monitoring for 40CFR60 Subpart IIII.

Dominion will be required to perform the following recordkeeping:

1. Maintain records of the amount of natural gas consumed in the hot oil heater and the flare.
2. Maintain records of the amount of product throughput (NGL, propane, butane, natural gasoline).
3. Maintain records of the flare design evaluation.
4. Maintain fuel analysis records to indicate that the low sulfur exemption for the hot oil heater (P001) will be met.
5. Maintain records of the operating plan for the Gasoline Storage Tank (TK-802).
6. Maintain records of testing conducted in accordance with the permit. Said records shall be maintained on-site or in a readily accessible off-site location
7. Maintain the corresponding records specified by the on-going monitoring requirements of and testing requirements of the permit.
8. Maintain records of the visible emission opacity tests conducted per the permit.
9. Maintain a record of all potential to emit (PTE) HAP calculations for the entire facility. These records shall include the natural gas compressor engines and ancillary equipment.
10. The records shall be maintained on site or in a readily available off-site location maintained by Dominion for a period of five (5) years.

RECOMMENDATION TO DIRECTOR

The information provided in the permit application indicates that Dominion meets all the requirements of applicable regulations. Therefore, impact on the surrounding area should be minimized and it is recommended that the Marshall County location should be granted a 45CSR13 construction permit for their facility.

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Jerry Williams, P.E.  
Engineer

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Date