



**west virginia** department of environmental protection

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**ENGINEERING EVALUATION / FACT SHEET**

BACKGROUND INFORMATION

Application No.: R13-2826E  
Plant ID No.: 051-00127  
Applicant: Caiman Eastern Midstream, LLC (Caiman)  
Facility Name: Fort Beeler Station  
Location: Moundsville, Marshall County  
SIC Code: 1321 (Extraction Plant)  
NAICS Code: 211112  
Application Type: Modification  
Received Date: October 3, 2011  
Engineer Assigned: Jerry Williams, P.E.  
Fee Amount: \$1,000.00  
Date Received: October 3, 2011 (\$300), October 12, 2011 (\$700)  
Complete Date: October 27, 2011  
Due Date: January 25, 2012  
Applicant Ad Date: October 12, 2011  
Newspaper: *Moundsville Daily Echo*  
UTM's: Easting: 537.23 km      Northing: 4408.34 km      Zone: 17  
Description: Modification of a natural gas processing facility by increasing the size and hours of operation of the medium heater (23S), and installing a flare for management of gas during certain anticipated maintenance activities. Additionally, the hot oil heater (5S) is being removed from operation.

DESCRIPTION OF PROCESS

The following process description was taken from Permit Application R13-2826E:

Caiman owns and operates the Fort Beeler Station, a natural gas processing plant (200 MMCF/day) in Marshall County. The station will continue to receive natural gas from local production wells (inlet gas), filter and process it through a cryogenic plant to remove non-methane/ethane organics from the gas stream. The facility operates under R13-2826D and currently has the capability to process natural gas through a 120 MMCF/day cryogenic plant and a 42 MMCF/day JT-Skid. Under the recently revised permit, Caiman is constructing a modification of this facility through the installation of certain equipment, including a second

cryogenic unit to allow processing of an additional 200 MMCF/day. At the time the second cryogenic plant starts up, the JT-Skid will be shut down. The total facility capacity will then be 320 MMCF/day.

This modification will include the following:

1. Installation of a 17.4 MMBTU/hr medium heater in lieu of the 11.7 MMBTU/hr unit currently permitted as Source 23S.
2. Installation of a flare for management of gas that must be vented in association with certain anticipated maintenance events.

The hot oil heater (Source 5S) is being removed. Additionally, once the 200 MMCF/day plant comes on line, the remainder of the JT-Skid equipment will be removed (Sources 2S and 9S). Caiman will modify this permit to reflect the changes at that time.

The following is an overview of each of the requested modifications:

#### **Medium Heater**

A liquid in a closed loop system will be used as a heat exchange medium for the bottoms re-boiler on the new de-methanizer. The liquid will be heated by gas-fired heater that was recently permitted as Source 23S. Conditions in the current permit call for this source to have a rating of 11.7 MMBTU/hr with a maximum operation of 5,256 hours per year. Caiman has determined that this heater must be rated at 17.4 MMBTU/hr and cannot be limited on hours of operation.

#### **Flare**

Caiman wishes to install a flare for the combustion of natural gas when it becomes necessary to depressurize portions of the plant for maintenance purposes. This flare will be equipped with a pilot that will consume only 18 CF of natural gas per hour. It is estimated that a maximum of 500 MCF of natural gas will be combusted in this unit on an annual basis in various maintenance activities. The amount of gas routed to the flare during a given event may vary widely, depending upon what areas of the facility will need to be depressurized for a given maintenance activity. Combustion is anticipated to be a minimum of 98% efficient.

#### **Removal of 40CFR60 Subpart JJJJ Requirements**

The previous permit issued mandated compliance with 40CFR60 Subpart JJJJ for compressor engines 12S, 13S, 18S, 19S and 20S. However, the engines that were installed were older units that pre-date the applicability of Subpart JJJJ. Therefore, Caiman is no longer subject to 40CFR60 Subpart JJJJ. Additionally, according to Caiman, they do not intend to install any newer engines at the facility in the foreseeable future.

SITE INSPECTION

A site inspection was conducted by Steve Sobotka of the DAQ NPRO Enforcement Section on May 23, 2011. They are currently operating in compliance.

Directions as given in the permit application are as follows:

*In Moundsville, take US 250 South approximately 13.5 miles. Site is located on the right on unnamed road, approximately 250 yards prior to Fork Ridge Road.*

ESTIMATE OF EMISSIONS BY REVIEWING ENGINEER

Maximum controlled point source emissions from Caiman's Fort Beeler Station are summarized in the table below.

Emission Point ID	Emission Unit ID	Process Unit	Pollutant	Maximum Controlled Emission Rate	
				Hourly (lb/hr)	Annual (ton/year)
2E	2S	607 hp Waukesha 2895 GSI Compressor Engine	Nitrogen Oxides	0.33	1.47
			Carbon Monoxide	2.68	11.72
			Sulfur Dioxide	0.01	0.01
			Particulate Matter-10	0.05	0.19
			Volatile Organic Compounds	0.13	0.57
			Formaldehyde	0.02	0.06
4E	4S	225 hp Caterpillar G342 NA Compressor Engine	Nitrogen Oxides	0.05	0.22
			Carbon Monoxide	0.99	4.35
			Sulfur Dioxide	0.01	0.01
			Particulate Matter-10	0.02	0.09
			Volatile Organic Compounds	0.06	0.28
			Formaldehyde	0.03	0.10
9E	9S	Existing JT Skid	Volatile Organic Compounds	0.55	2.42
12E	12S	1,340 hp Caterpillar 3516LE Compressor	Nitrogen Oxides	4.43	19.41
			Carbon Monoxide	0.56	2.45
			Sulfur Dioxide	0.01	0.03
			Particulate Matter-10	0.11	0.48

		Engine	Volatile Organic Compounds	0.46	2.01
			Formaldehyde	0.08	0.32
14E	14S	8.4 MMBtu/hr Hot Oil Heater	Nitrogen Oxides	0.77	3.38
			Carbon Monoxide	0.65	2.84
			Sulfur Dioxide	0.01	0.02
			Particulate Matter-10	0.06	0.26
			Volatile Organic Compounds	0.04	0.19
17E	17S	120 MMCF/Day Cryogenic Unit	Volatile Organic Compounds	2.15	9.42
18E	18S	3,550 hp Caterpillar 3612 LE Compressor Engine	Nitrogen Oxides	3.91	17.14
			Carbon Monoxide	2.15	9.43
			Sulfur Dioxide	0.02	0.07
			Particulate Matter-10	0.26	1.13
			Volatile Organic Compounds	2.47	10.80
			Formaldehyde	0.32	1.37
19E	19S	3,550 hp Caterpillar 3612 LE Compressor Engine	Nitrogen Oxides	3.91	17.14
			Carbon Monoxide	2.15	9.43
			Sulfur Dioxide	0.02	0.07
			Particulate Matter-10	0.26	1.13
			Volatile Organic Compounds	2.47	10.80
			Formaldehyde	0.32	1.37
20E	20S	3,550 hp Caterpillar 3612 LE Compressor Engine	Nitrogen Oxides	3.91	17.14
			Carbon Monoxide	2.15	9.43
			Sulfur Dioxide	0.02	0.07
			Particulate Matter-10	0.26	1.13
			Volatile Organic Compounds	2.47	10.80
			Formaldehyde	0.32	1.37
21E	21S	4.08 MMBtu/hr Regenerator Heater	Nitrogen Oxides	0.37	1.64
			Carbon Monoxide	0.31	1.38
			Sulfur Dioxide	0.01	0.01
			Particulate Matter-10	0.03	0.12
			Volatile Organic Compounds	0.02	0.09

22E	22S	5.605 MMBtu/hr Regenerator Heater	Nitrogen Oxides	0.52	1.13
			Carbon Monoxide	0.44	0.95
			Sulfur Dioxide	0.01	0.01
			Particulate Matter-10	0.04	0.09
			Volatile Organic Compounds	0.03	0.07
23E	23S	17.4 MMBtu/hr Medium Heater	Nitrogen Oxides	1.60	7.00
			Carbon Monoxide	1.34	5.88
			Sulfur Dioxide	0.01	0.01
			Particulate Matter-10	0.12	0.53
			Volatile Organic Compounds	0.09	0.38
24E	24S	200 MMCF/Day Cryogenic Unit	Volatile Organic Compounds	2.15	9.42
26E	26S	625 hp Caterpillar 398 TA Compressor Engine	Nitrogen Oxides	0.69	3.02
			Carbon Monoxide	0.69	3.02
			Sulfur Dioxide	0.01	0.02
			Particulate Matter-10	0.06	0.23
			Volatile Organic Compounds	0.06	0.24
			Formaldehyde	0.02	0.08
27E	27S	Flare	Nitrogen Oxides	0.93	0.07
			Carbon Monoxide	1.85	0.15
			Volatile Organic Compounds	2.15	0.17

The following table represents the total facility emissions:

Pollutant	Maximum Annual Facility Wide Emissions Before R13-2826E (tons/year)	Maximum Annual Facility Wide Emissions After R13-2826E (tons/year)	Net Change (tons/year)
Nitrogen Oxides	84.95	88.75	3.80
Carbon Monoxide	57.72	61.00	3.28
Volatile Organic Compounds	57.27	57.48	0.21
Particulate Matter	5.06	5.38	0.32
Sulfur Dioxide	0.31	0.31	0
Formaldehyde	4.67	4.67	0
Total HAPs	12.92	12.92	0

The following table indicates the control device efficiencies that are being utilized:

Control Device ID	Control Device	Emission Unit	Pollutant	Control Efficiency
2C	Non Selective Catalytic Reduction (NSCR)	Waukesha 2895 GSI Compressor Engine	Nitrogen Oxides	98 %
			Carbon Monoxide	77 %
			Volatile Organic Compounds	75 %
			Formaldehyde	76 %
4C	Non Selective Catalytic Reduction (NSCR)	Caterpillar G342 NA Compressor Engine	Nitrogen Oxides	99 %
			Carbon Monoxide	85 %
			Volatile Organic Compounds	72 %
			Formaldehyde	76 %
12C	Selective Catalytic Reduction (SCR)	Caterpillar 3516 LE Compressor Engine	Carbon Monoxide	95 %
			Volatile Organic Compounds	50 %
			Formaldehyde	94 %
18C 19C 20C	Selective Catalytic Reduction (SCR)	Caterpillar 3612 LE Compressor Engine	Carbon Monoxide	94 %
			Volatile Organic Compounds	50 %
			Formaldehyde	94 %
26C	Non Selective Catalytic Reduction (NSCR)	Caterpillar 398 TA Compressor Engine	Nitrogen Oxides	95%
			Carbon Monoxide	95%
			Volatile Organic Compounds	95%
			Formaldehyde	76%

## REGULATORY APPLICABILITY

*Unless otherwise stated 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.*

The following rules apply to the facility:

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

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

Any fuel burning unit having a heat input under ten (10) million B.T.U.'s per hour will be exempt from sections 4 (weight emission standard), 5 (control of fugitive particulate matter), 6 (registration), 8 (testing, monitoring, recordkeeping, reporting) and 9 (startups, shutdowns, malfunctions). However, failure to attain acceptable air quality in parts of some urban areas may require the mandatory control of these sources at a later date.

Therefore, the only fuel burning unit that would not meet this exemption would be the 17.4 MMBtu/hr medium heater (23S). The weight emission standard for this unit would be 1.57 lb/hr of particulate matter. Caiman has proposed a limit of 0.12 lb/hr, therefore this standard should be met. Caiman shall perform the prescribed testing, monitoring, recordkeeping and reporting for this unit.

### **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)

The purpose of this rule is to prevent and control air pollution from combustion of refuse.

Caiman 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 0.1 pounds of particulate matter per hour (assuming a natural gas density of 0.044 lb/ft<sup>3</sup>). The flare has negligible amounts of particulate matter emissions per hour. Therefore, the facility's flare should demonstrate compliance with this section. The facility will demonstrate compliance by maintaining records of 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 Emission of Sulfur Oxides)

Caiman would be subject to an in-stack sulfur dioxide concentration of 2,000 parts per million by volume.

Any fuel burning unit having a heat input under ten (10) million B.T.U.'s per hour will be exempt from sections 3 (weight emission standard), 6 (registration), 7 (permits), and 8 (testing, monitoring, recordkeeping, reporting). However, failure to attain acceptable air quality in parts of some urban areas may require the mandatory control of these sources at a later date.

Therefore, the only fuel burning unit that would not meet this exemption would be the 17.4 MMBtu/hr medium heater (23S). The weight emission standard for this unit would be 53.94 lb/hr of particulate matter. Caiman has proposed a limit of 0.01 lb/hr, therefore this standard would be met. Caiman shall perform the prescribed testing, monitoring, recordkeeping and reporting for this unit.

**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 Caiman's flare installation is subject to a substantive requirement (45CSR6). The emissions increase associated with this permit application are below the emissions modification threshold. Caiman has published the required Class I legal advertisement notifying the public of their permit application, and paid the appropriate application fee (modification).

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

45CSR16 applies to this source by reference of, 40CFR60, Subpart KKK and 40CFR60, Subpart JJJJ. Caiman is subject to the recordkeeping, monitoring, and testing required by 40CFR60, Subpart KKK and 40CFR60, Subpart JJJJ.

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

This permit does not affect 45CSR30 applicability, the source is a nonmajor source subject to 45CSR30.

**40CFR60 Subpart Dc** (Standards of Performance for Small Industrial/Commercial/Institutional Steam Generating Units)

Caiman is subject to all applicable notifications, recordkeeping, and reporting requirements present in 40CFR60 Subpart Dc. 40CFR60 Subpart Dc applies to this source due to the maximum heat input of the medium heater (17.4 MMBtu/hr). In accordance with 40CFR60 Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units, the applicant shall monitor all applicable requirements of 40CFR60 Subpart Dc.

**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 Fort Beeler Station is subject to this rule due to the natural gas liquids extraction plant. Caiman must meet the LDAR requirements of Subpart KKK, which includes the provisions referenced in 40CFR60 Subpart VV.

The following rules do not apply to the facility:

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

Caiman's Fort Beeler Station does not have any compression ignition internal combustion engines. Therefore, they would not be subject to this rule.

**40CFR60 Subpart JJJJ** (Standards of Performance for Stationary Spark Ignition Internal Combustion Engines)

The previous permit issued mandated compliance with 40CFR60 Subpart JJJJ for compressor engines 12S, 13S, 18S, 19S and 20S. However, the engines that were installed were older units that pre-date the applicability of Subpart JJJJ. Therefore, Caiman is no longer subject to 40CFR60 Subpart JJJJ. Additionally, according to Caiman, they do not intend to install any newer engines at the facility in the foreseeable future.

**40CFR63 Subpart ZZZZ** (National Emission Standards for Reciprocating Ignition Internal Combustion Engines)

**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)

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.

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

40CFR60 Subpart Kb does not apply to pressure vessels designed to operate in excess of 204.9 kPa (29.7 psi) and without emissions to the atmosphere. The tanks that Caiman has installed are operated at 1,379 kPa (200 psi), therefore the tanks would not be subject to this rule.

**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>Fort Beeler PTE (tpy)</b>	<b>45CSR14 or 45CSR19 Review Required?</b>
Carbon Monoxide	250	NA	61.00	No
Nitrogen Oxides	250	100	88.75	No
Sulfur Dioxide	250	100	0.31	No
Particulate Matter 10	250	NA	5.38	No
Ozone (VOC)	250	NA	57.48	No

As shown in the table above, Caiman is not subject to 45CSR14 or 45CSR19 review.

**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**

Modeling was not required of this source due to the fact that the facility is not subject to 45CSR14 (Permits for Construction and Major Modification of Major Stationary Sources of Air Pollutants) as seen in the table listed in the Regulatory Discussion Section.

## SOURCE AGGREGATION DETERMINATION

“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 Fort Beeler Processing Facility will operate under SIC code 1321 (Natural Gas Liquid Extraction), while the proposed Ohio River Fractionation Facility also operates under SIC Code 1321. Therefore, the two (2) facilities do belong to the same industrial grouping.
2. Both the Ohio River Fractionation Facility and Fort Beeler Processing Facility are owned and operated by Caiman.
3. The Ohio River Fractionation Facility will be located approximately 11 miles from the Fort Beeler Processing Facility. This is not considered to be on contiguous or adjacent property as Caiman does not own the land in between the facilities, and the facilities are not mutually dependent.

Caiman currently operates the Fort Beeler Processing Facility under Permit R13-2826D. The original Fort Beeler permit was issued on March 29, 2010. Therefore, Caiman was operating the Fort Beeler facility independent of the Ohio River facility.

The purpose of the Fort Beeler facility is to remove natural gas liquids (NGL) including ethane, propane, butane and other higher molecular weight organics from the raw natural gas stream produced from nearby wells. This brings the quality of the natural gas to within contractual standards making it suitable for sale to and distribution by interstate pipelines.

The purpose of the Ohio River facility is to take the NGL removed from the produced gas and separate them into individual components such as propane and butane. Caiman does not own the natural gas; they only provide a third party service and further process the gas for these parties.

The Fort Beeler facility currently trucks the NGL to either third party fractionators or to a rail car loading facility. Approximately 98% of the NGL product produced at Fort Beeler is owned by customers for whom Caiman provides natural gas processing services. This product is marketed for the customers by an independent, third party company that has been contracted to market the product for customers that do not desire to market it on their own. The third party marketing company determines how the product will be transported, where it will be transported, negotiates the contracts under which third party fractionators perform their NGL processing, and then markets the final product. Caiman’s only connection will be that that they will attempt to serve the needs of these customers by offering the use of the Ohio River facility.

Of this 98%, approximately one half of the product being produced at the Fort Beeler facility is controlled by one entity which has sole control regarding the manner in which the product is marketed and has no specific tie to Caiman. Its product is currently delivered to a third party fractionator in Pennsylvania.

The Ohio River facility will initially possess the capability to receive 210,000 gallons per day of raw condensate or NGL product by truck, and 100,000 gallons per day of raw condensate or NGL product by rail. Caiman is also constructing two (2) pipelines to the Ohio River facility. One will be a pipeline for condensate from producing well locations with a capacity of 250,000 gallons per day. The second pipeline will be from the Fort Beeler facility for NGL product with a capacity of 2,100,000 gallons per day. Therefore, the Ohio River facility will be able to receive product from three (3) sources other than Fort Beeler initially, with the possibility for others in the future.

The Ohio River site was chosen based on transportation access (highway and rail), land availability, and suitable size. The Fort Beeler facility and the Ohio River facility do not share facilities or equipment.

The Fort Beeler and Ohio River facilities do have the same industrial grouping and are owned by the same company and are under common control. However, the two (2) facilities are not considered “contiguous or adjacent”. The facilities are separated by 11 miles and Caiman does not own the land in between the two (2) facilities. Furthermore, the facilities are not mutually dependent. The Fort Beeler facility has been in operation more than one (1) year currently and could continue to operate without the Ohio River facility. In addition, as explained in item 3, the Ohio River facility also has the capability of operating without the Fort Beeler facility. Caiman will market the ability to use both facilities. However, Caiman will not have an ownership interest in the product and will have no control over the Fort Beeler product unless the owner chooses Caiman to utilize its services further.

Because of the reasons listed above, the emissions from these two (2) facilities should not be aggregated in determining major source or PSD status.

## CHANGES TO PERMIT R13-2826D

The following is an overview of each of the requested modifications:

### **Medium Heater**

A liquid in a closed loop system will be used as a heat exchange medium for the bottoms re-boiler on the new de-methanizer. The liquid will be heated by gas-fired heater that was recently permitted as Source 23S. Conditions in the current permit call for this source to have a rating of 11.7 MMBTU/hr with a maximum operation of 5,256 hours per year. Caiman has determined that this heater must be rated at 17.4 MMBTU/hr and cannot be limited on hours of operation.

### **Flare**

Caiman wishes to install a flare for the combustion of natural gas when it becomes necessary to depressurize portions of the plant for maintenance purposes. This flare will be equipped with a pilot that will consume only 18 CF of natural gas per hour. It is estimated that a maximum of 500 MCF of natural gas will be combusted in this unit on an annual basis in various maintenance activities. The amount of gas routed to the flare during a given event may vary widely, depending upon what areas of the facility will need to be depressurized for a given maintenance activity. Combustion is anticipated to be a minimum of 98% efficient.

### **Removal of 40CFR60 Subpart JJJJ Requirements**

The previous permit issued mandated compliance with 40CFR60 Subpart JJJJ for compressor engines 12S, 13S, 18S, 19S and 20S. However, the engines that were installed were older units that pre-date the applicability of Subpart JJJJ. Therefore, Caiman is no longer subject to 40CFR60 Subpart JJJJ. Additionally, according to Caiman, they do not intend to install any newer engines at the facility in the foreseeable future.

## MONITORING OF OPERATIONS

Caiman will be required to perform the following monitoring:

1. Monitor and record quantity of natural gas consumed for all engines, and combustion sources.
2. Monitor all applicable requirements of 40CFR60 Subparts Dc and KKK.
3. Monitor and record the operating hours of the flare.
4. Monitor the presence of the flare pilot flame using a thermocouple or any other equivalent device to detect the presence of a flame at the flare.

Caiman will be required to perform the following recordkeeping:

1. Maintain records of the amount of natural gas consumed in each combustion source.
2. 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
3. Maintain the corresponding records specified by the on-going monitoring requirements of and testing requirements of the permit.
4. Maintain records of the visible emission opacity tests conducted per the permit.
5. 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.
6. The records shall be maintained on site or in a readily available off-site location maintained by Caiman for a period of five (5) years.
7. Maintain records of all applicable requirements of 40CFR60 Subparts Dc and KKK.

## RECOMMENDATION TO DIRECTOR

The information provided in the permit application indicates Caiman's Fort Beeler Station 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 modification permit for their facility.

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Jerry Williams, P.E.  
Engineer

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Date