

Engineer	Jerry Williams, P.E.
Email Address	jerry.williams@wv.gov
Company Name	Icon Midstream Pipeline, LLC
Company ID	095-00027
Facility Name	Big Moses Liquids Management Facility
Permit Number	R13-3293
County	Tyler
Newspaper	Tyler Star News 652-4141
Company Email and "Attention To:"	Shane Dowell iconmidstream@gmail.com
Environmental Contact Email Address	NA
Regional Office (if applicable)	NA
New or Modified Source?	new
Construction, Modification, or Relocation?	construction
Type of Facility	natural gas liquids management facility
"Located" or "To Be Located"?	to be located
Place where I can find electronic versions of your notice, engineering evaluation, and draft permit	Q:\AIR_QUALITY\Willi\Permit Applications Under Review\ICON Midstream Pipeline, LLC\R13-3293 Big Moses Liquid Management Facility

publish Wed Apr 13 2016
30 days Fri May 13 2016

Verbal
OK from
Victoria Uke
am

INTERNAL PERMITTING DOCUMENT TRACKING MANIFEST

Company Name Icon Midstream Pipeline, LLC

Permitting Action Number R13-3293 Total Days 54 DAQ Days 21

Permitting Action:

- | | | |
|---|---|--------------------------------------|
| <input type="radio"/> Permit Determination | <input type="radio"/> Temporary | <input type="radio"/> Modification |
| <input type="radio"/> General Permit | <input type="radio"/> Relocation | <input type="radio"/> PSD (Rule 14) |
| <input type="radio"/> Administrative Update | <input checked="" type="radio"/> Construction | <input type="radio"/> NNSR (Rule 19) |

Documents Attached:

- | | |
|--|--|
| <input checked="" type="radio"/> Engineering Evaluation/Memo | <input type="radio"/> Completed Database Sheet |
| <input checked="" type="radio"/> Draft Permit | <input type="radio"/> Withdrawal |
| <input checked="" type="radio"/> Notice | <input type="radio"/> Letter |
| <input type="radio"/> Denial | <input type="radio"/> Other (specify) _____ |
| <input type="radio"/> Final Permit/General Permit Registration | _____ |

Date	From	To	Action Requested
3/14/2016	Jerry <i>JW</i>	Bev	Please review and approve to go to notice.
4/4	Bev	Jerry	See comments - Addendum - Go to Notice
	Jerry	SANDIE	APPROVED FOR NOTICE

NOTE: Retain a copy of this manifest for your records when transmitting your document(s).

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Environmental Contact Email Address	NA
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ENGINEERING EVALUATION/ FACT SHEET

BACKGROUND INFORMATION

Application No.: R13-3293
Plant ID No.: 095-00027
Applicant: Icon Midstream Pipeline, LLC (Icon)
Facility Name: Big Moses Liquids Management Facility
Location: Alma, Tyler County
NAICS Code: 211112
Application Type: Construction
Received Date: January 20, 2016
Engineer Assigned: Jerry Williams, P.E.
Fee Amount: \$2,000.00
Date Received: January 20, 2016
Complete Date: February 22, 2016
Due Date: May 22, 2016
Applicant Ad Date: January 27, 2016
Newspaper: *Tyler Star News*
UTM's: Easting: 518.180 km Northing: 4,364.529 km Zone: 17
Latitude/Longitude: 39.430106/ -80.788765
Description: This permitting action is for the installation and operation of a natural gas liquids management facility.

DESCRIPTION OF PROCESS

The following process description was taken from Registration Application R13-3293:

Icon Midstream plans to install its Big Moses Liquids Management Facility contiguous with the Jay-Bee Oil & Gas Big Moses Station in Tyler County. The Station will receive and manage natural gas and produced fluids (primarily raw condensate) from area production well pads owned and operated by others. At the station inlet, gas and produced fluids will be passed through a slug catcher where liquids will be separated from the gas. The gas will be routed to the inlet of the adjacent Jay-Bee Oil & Gas Big Moses station to be compressed, dehydrated and injected into pipelines for transportation to facilities owned by others for further processing. A portion of the gas will be used as fuel for Icon's equipment. Liquids exiting the Slug Catcher will pass through a line heater and then enter a heated separator. In the heated separator, the liquids are first separated into Condensate and Produced Water (Brine). As the pressure is

Promoting a healthy environment.

reduced, lighter components of the condensate is flashed off. The stabilized condensate is routed to a series of five 210 bbl aboveground storage tanks prior to transportation (via truck) to a processing facility owned and operated by others. The separated water is routed to a single 210 bbl aboveground storage tank prior to off-site transportation by others for re-use or disposal. The flash gas coming off of the heated separator will be routed to a flash gas compressor and passed through an air cooler. A fraction of the flash gas condenses during the pressurization and cooling process. This liquid (Natural Gas Liquids or NGL) will then be accumulated in a pressure vessel (approximately 120 psia) and transported via a pressurized tanker truck to a fractionation facility owned by others for further processing. Vapors emitted by the stabilized condensate storage tanks will be captured by a hard piping system that will route the vapors to a Vapor Recovery Unit (VRU). This unit will compress the vapors and inject the gas into the sales line. Any liquids condensing during this pressurization and cooling process are routed to the NGL tank. Any vapors not handled by the VRU or Flash Gas compressor will be controlled by enclosed combustors if/when one or both of the VRU or Flash Gas compressor are down for maintenance or other mechanical reasons. Vapors associated with the condensate truck loading will also be routed to the enclosed combustor. As NGL truck loading will be via vapor balance between the pressurized storage vessels and the pressurized tanker truck, there will only be emissions associated with the connection/disconnection of the transfer lines.

In summary, emission sources at this facility will include the following:

- One (1) Flash Gas Compressor Engine – Arrow VR 260 47 hp
- One (1) VRU Gas Compressor Engine – Cummins G8.3 118 hp
- One (1) 0.25 MMBTU/Hr Line Heater
- One (1) 1.0 MMBTU/Hr Separator Heater
- Five (5) 210 bbl Stabilized Condensate Tanks
- One (1) 210 bbl Produced Water Tank
- Stabilized Condensate/Produced water truck loading
- NGL truck loading
- Fugitive Emissions – Facility Roadways
- Fugitive Emissions – Component Leaks

SITE INSPECTION

A site inspection was conducted at the contiguous Jay-Bee Oil & Gas Big Moses facility by Douglas Hammell of the DAQ Enforcement Section on May 6, 2014. The facility was operating in compliance at that time.

ESTIMATE OF EMISSIONS BY REVIEWING ENGINEER

Emissions associated with this construction application consist of the emissions from two (2) natural gas fired engines, two (2) heaters, five (5) condensate storage tanks, one (1) produced water storage tanks, condensate truck loading, produced water truck loading, one (1) enclosed combustor, and fugitive emissions. Each piece of equipment onsite are fitted with components such as flanges, valves, connectors, and seals to ensure a safe and efficient production process. These components are designed to have a small amount of gas vent to the atmosphere. The component counts were estimated using similar facilities. Emission factors from 40CFR98, Table W-1A and API were used.

The following table indicates which methodology was used in the emissions determination:

Emission Point ID#	Process Equipment	Calculation Methodology
CE-1	47 hp Arrow VR 260 Flash Gas Compressor	Manufacturer's Data, EPA AP-42 Emission Factors
CE-2	118 hp Cummins G8.3 VRU Compressor Engine	Manufacturer's Data, EPA AP-42 Emission Factors
HTR-1	0.25 MMBTU/hr Line Heater	EPA AP-42 Emission Factors
HTR-2	1.0 MMBTU/hr Separator Heater	EPA AP-42 Emission Factors
T01 – T05	Five (5) 210 bbl Condensate Storage Tanks	Gas-Oil Ratio (Flashing) EPA Tanks 4.0.9d (Working and Breathing)
T06	210 bbl Produced Water Storage Tanks	Gas-Oil Ratio (Flashing) EPA Tanks 4.0.9d (Working and Breathing)
TL-1	1,050,000 gal/yr Condensate Truck Loading	EPA AP-42 Emission Factors
TL-2	58,800 gal/yr Produced Water Truck Loading	EPA AP-42 Emission Factors
EC-1	10.0 MMBTU/hr Enclosed Combustor	EPA AP-42 Emission Factors

The following table indicates the control device efficiencies that are required for this facility:

Emission Unit	Pollutant	Control Device	Control Efficiency
CE-1 Compressor Engine	Nitrogen Oxides	Non Selective Catalytic Reduction (NSCR)	84.4 %
	Carbon Monoxide		21.6 %
CE-2 Compressor Engine	Nitrogen Oxides	Non Selective Catalytic Reduction (NSCR)	92 %
	Carbon Monoxide		77 %
T01 – T05, T06 Condensate and Produced Water Tanks	Volatile Organic Compounds	Vapor Recovery Unit/ Enclosed Combustor	95 %
	Total HAPs		95 %
TL-1 Condensate Truck Loading	Volatile Organic Compounds	Vapor Return/ Combustion	93.7 % (98.7 % NSPS capture, 95% control)

Icon Midstream Pipeline, LLC – Big Moses Liquids Management Facility (R13-3293)

Emission Point ID#	Source	NO _x		CO		VOC		PM		SO ₂		Formaldehyde		Total HAPs		CO _{2e} ton/year
		lb/hr	ton/year	lb/hr	ton/year	lb/hr	ton/year	lb/hr	ton/year	lb/hr	ton/year	lb/hr	ton/year	lb/hr	ton/year	
1E	Arrow VR 260 Compressor Engine	0.21	0.91	0.41	1.81	0.01	0.06	0.01	0.04	0.00	0.00	0.01	0.04	0.01	0.07	238
2E	Cummins C8.3 Compressor Engine	0.26	1.14	0.52	2.28	0.03	0.13	0.05	0.22	0.00	0.00	0.02	0.09	0.11	0.49	542
3E	Line Heater	0.02	0.09	0.02	0.08	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	107
4E	Separator Heater	0.08	0.36	0.07	0.30	0.00	0.02	0.01	0.03	0.00	0.00	0.00	0.00	0.00	0.00	430
5E	Condensate Tanks T01-T05	0.00	0.00	0.00	0.00	5.57	24.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
6E	Enclosed Combustor (Tanks, Loading)	0.30	0.06	1.65	0.32	3.40	0.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	116
7E	Produced Water Tank	0.00	0.00	0.00	0.00	<0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
8E	Produced Water Truck Loading	0.00	0.00	0.00	0.00	0.13	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
PIG	Pigging	0.00	0.00	0.00	0.00	NA	7.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	651
BD	Blowdowns	0.00	0.00	0.00	0.00	NA	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
TL2	Uncaptured Cond Truck Loading	0.00	0.00	0.00	0.00	0.78	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.03	0
Total Icon Point Source		0.87	2.56	2.67	4.78	9.93	33.25	0.07	0.30	0.00	0.01	0.03	0.13	0.43	1.42	2084
Fugitive	Venting	0.00	0.00	0.00	0.00	0.38	1.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8
Fugitive	Dust	0.00	0.00	0.00	0.00	0.00	0.00	4.43	2.33	0.00	0.00	0.00	0.00	0.00	0.00	0
Fugitive	NGL Loading (PV Disconnect)	0.00	0.00	0.00	0.00	0.90	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8
Total Icon Fugitive		0.00	0.00	0.00	0.00	1.28	1.71	4.43	2.33	0.00	0.00	0.00	0.00	0.00	0.00	16.25
Total Icon Site Wide		0.87	2.56	2.67	4.78	11.21	34.95	4.50	2.63	0.00	0.01	0.03	0.13	0.43	1.42	2100
Jay-Bee Oil & Gas Big Moses Station (proposed mod)		8.04	35.19	3.69	16.15	12.81	56.12	0.68	2.97	0.04	0.14	0.14	0.63	0.06	0.25	36613
Icon + Jay-Bee Big Moses		8.91	37.75	6.36	20.93	24.02	91.07	5.18	5.60	0.04	0.15	0.17	0.76	0.49	1.67	38713

REGULATORY APPLICABILITY

The following rules apply to the facility:

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

The purpose of 45CSR2 (Particulate Air Pollution from Combustion of Fuel in Indirect Heat Exchangers) is to establish emission limitations for smoke and particulate matter which are discharged from fuel burning units.

45CSR2 states that any fuel burning unit that has a heat input under ten (10) million B.T.U.'s per hour is 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.

The individual heat input of all of the proposed fuel burning units (line heater (3E) and separator heater (4E)) are below 10 MMBTU/hr. Therefore, these units are exempt from the aforementioned sections of 45CSR2. However, Icon would be subject to the opacity requirements in 45CSR2, which is 10% opacity based on a six minute block average.

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

45CSR6 prohibits open burning, establishes emission limitations for particulate matter, and establishes opacity requirements. Sources subject to 45CSR6 include completion combustion devices, enclosed combustion devices, and flares.

The facility-wide requirements of the general permit include the open burning limitations §§45-6-3.1 and 3.2.

All completion combustion devices, enclosed combustion devices, and flares are subject to the particulate matter weight emission standard set forth in §45-6-4.1; the opacity requirements in §§45-6-4-3 and 4-4; the visible emission standard in §45-6-4.5; the odor standard in §45-6-4.6; and the testing standard in §§45-6-7.1 and 7.2. Sections 5.0, 6.0 and 14.0 of the G70-A general permit include requirements for 45CSR6.

Enclosed combustion control devices and flares that are used to comply with emission standards of NSPS, Subpart OOOO are subject to design, operational, performance, recordkeeping and reporting requirements of the NSPS regulation that meet or exceed the requirements of 45CSR6.

Icon has one (1) combustor at the Big Moses Facility. The combustor has minimal particulate matter emissions. Therefore, the facility's combustor should demonstrate compliance with this section. The facility will demonstrate compliance by maintaining records of the amount of natural gas consumed by the combustor and the hours of operation. The facility will also monitor the flame of the combustor and record any malfunctions that may cause no flame to be present during operation.

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

45CSR10 states that any fuel burning unit that has a heat input under ten (10) million B.T.U.'s per hour is 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.

The individual heat input of all of the proposed fuel burning units (line heater (3E) and separator heater (4E)) are below 10 MMBTU/hr. Therefore, these units are exempt from the aforementioned sections of 45CSR10.

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 Icon is defined as a “stationary source” under 45CSR13 Section 2.24.b, which states that an owner or operator discharges or has the potential to discharge more than six (6) pounds per hour and ten (10) tons per year, or has the potential to discharge more than 144 pounds per calendar day of any regulated air pollutant. Icon’s volatile organic compounds (VOC) emissions exceed 45CSR13 permit thresholds. Icon has published the required Class I legal advertisement notifying the public of their permit application, and paid the appropriate application fee (construction).

45CSR22 (Air Quality Management Fee Program)

This facility is a minor source and not subject to 45CSR30. Icon is required to keep their Certificate to Operate current.

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

40CFR60 Subpart JJJJ establishes emission standards for applicable SI ICE.

The 47 hp Arrow VR 260 Flash Gas Compressor (CE-1) is subject to the requirements for engines between 25 and 100 hp constructed after June 12, 2006 and manufactured on or after July 1, 2008.

The 47 hp Arrow VR 260 Flash Gas Compressor (CE-1) will be subject to the emission standards for field testing in 40 CFR 1048.101(c). The HC+NO_x standard is 3.8 g/kW-hr and the CO standard is 6.5 g/kW-hr. Based on the manufacturer’s specifications for this engine, the emission standards will be met.

The 118 hp Cummins G8.3 VRU Compressor Engine (CE-2) is subject to the requirements for engines that were manufactured after January 1, 2011 and are greater than or equal to 100 and less than 500 hp.

The 118 hp Cummins G8.3 VRU Compressor Engine (CE-2) will be subject to the following emission limits: NO_x – 1.0 g/hp-hr (0.26 lb/hr); CO – 2.0 g/hp-hr (0.42 lb/hr); and VOC – 0.7 g/hp-hr (0.18 lb/hr). Based on the manufacturer's specifications for this engine, the emission standards will be met.

These engines are not certified by the manufacturer to meet the emission standards listed in 40CFR60 Subpart JJJJ. Therefore, Icon will be required to conduct an initial performance test and conduct subsequent performance testing every 8,760 hours or three (3) years, whichever comes first, to demonstrate compliance.

40CFR60 Subpart OOOO (Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution)

EPA published in the Federal Register new source performance standards (NSPS) and air toxics rules for the oil and gas sector on August 16, 2012. 40CFR60 Subpart OOOO establishes emission standards and compliance schedules for the control of volatile organic compounds (VOC) and sulfur dioxide (SO₂) emissions from affected facilities that commence construction, modification or reconstruction after August 23, 2011. The following affected sources which commence construction, modification or reconstruction after August 23, 2011 are subject to the applicable provisions of this subpart:

- a. Each gas well affected facility, which is a single natural gas well.

There are no gas wells at this facility. Therefore, all requirements regarding gas well affected facilities under 40 CFR 60 Subpart OOOO would not apply.

- b. Each centrifugal compressor affected facility, which is a single centrifugal compressor using wet seals that is located between the wellhead and the point of custody transfer to the natural gas transmission and storage segment. For the purposes of this subpart, your centrifugal compressor is considered to have commenced construction on the date the compressor is installed (excluding relocation) at the facility. A centrifugal compressor located at a well site, or an adjacent well site and servicing more than one well site, is not an affected facility under this subpart.

There are no centrifugal compressors at the Big Moses Facility. Therefore, all requirements regarding centrifugal compressors under 40 CFR 60 Subpart OOOO would not apply.

- c. Each reciprocating compressor affected facility, which is a single reciprocating compressor located between the wellhead and the point of custody transfer to the natural gas transmission and storage segment. For the purposes of this subpart, your reciprocating compressor is considered to have commenced construction on the date the compressor is installed (excluding relocation) at the facility. A reciprocating compressor located at a well site, or an adjacent well site and servicing more than one well site, is not an affected facility under this subpart.

There are reciprocating internal combustion engines located at the Big Moses Facility that were constructed after August 23, 2011. Therefore, the requirements regarding reciprocating compressors under 40 CFR 60 Subpart OOOO will apply. Icon will be required to perform the following:

- Replace the reciprocating compressor rod packing at least every 26,000 hours of operation or 36 months or installation of a rod packing emissions collection system.
- Demonstrate initial compliance by continuously monitoring the number of hours of operation or track the number of months since the last rod packing replacement.
- Submit the appropriate start up notifications.
- Submit the initial annual report for the reciprocating compressors.
- Maintain records of hours of operation since last rod packing replacement, records of the date and time of each rod packing replacement, and records of deviations in cases where the reciprocating compressor was not operated in compliance.

d. Pneumatic Controllers

- Each pneumatic controller affected facility, which is a single continuous bleed natural gas-driven pneumatic controller operating at a natural gas bleed rate greater than 6 scfh which commenced construction after August 23, 2011, and is located between the wellhead and the point of custody transfer to the natural gas transmission and storage segment and not located at a natural gas processing plant.
- Each pneumatic controller affected facility, which is a single continuous bleed natural gas-driven pneumatic controller which commenced construction after August 23, 2011, and is located at a natural gas processing plant.

There are no continuous bleed gas-driven pneumatic controllers with bleed rates greater than 6 standard cubic feet per hour (scfh) at the Big Moses Facility. Therefore, there are no applicable requirements regarding pneumatic controllers under 40 CFR 60 Subpart OOOO that would apply.

- e. Each storage vessel affected facility, which is a single storage vessel, located in the oil and natural gas production segment, natural gas processing segment or natural gas transmission and storage segment.

40CFR60 Subpart OOOO defines a storage vessel as a unit that is constructed primarily of nonearthen materials (such as wood, concrete, steel, fiberglass, or plastic) which provides structural support and is designed to contain an

accumulation of liquids or other materials. The following are not considered storage vessels:

- Vessels that are skid-mounted or permanently attached to something that is mobile (such as trucks, railcars, barges or ships), and are intended to be located at a site for less than 180 consecutive days. If the source does not keep or are not able to produce records, as required by §60.5420(c)(5)(iv), showing that the vessel has been located at a site for less than 180 consecutive days, the vessel described herein is considered to be a storage vessel since the original vessel was first located at the site.
- Process vessels such as surge control vessels, bottoms receivers or knockout vessels.
- Pressure vessels designed to operate in excess of 204.9 kilopascals and without emissions to the atmosphere.

This rule requires that the permittee determine the VOC emission rate for each storage vessel affected facility utilizing a generally accepted model or calculation methodology within 30 days of startup, and minimize emissions to the extent practicable during the 30 day period using good engineering practices. For each storage vessel affected facility that emits more than 6 tpy of VOC, the permittee must reduce VOC emissions by 95% or greater within 60 days of startup. The compliance date for applicable storage vessels is October 15, 2013.

The storage vessels located at the Big Moses Facility are controlled by a VRU/combustor and emit less than 6 tpy of VOC. Therefore, Icon is not required by this section to further reduce VOC emissions by 95%.

- f. The group of all equipment, except compressors, within a process unit is an affected facility.
- Addition or replacement of equipment for the purpose of process improvement that is accomplished without a capital expenditure shall not by itself be considered a modification under this subpart.
 - Equipment associated with a compressor station, dehydration unit, sweetening unit, underground storage vessel, field gas gathering system, or liquefied natural gas unit is covered by §§60.5400, 60.5401, 60.5402, 60.5421 and 60.5422 of this subpart if it is located at an onshore natural gas processing plant. Equipment not located at the onshore natural gas processing plant site is exempt from the provisions of §§60.5400, 60.5401, 60.5402, 60.5421 and 60.5422 of this subpart.
 - The equipment within a process unit of an affected facility located at onshore natural gas processing plants and described in paragraph (f) of

this section are exempt from this subpart if they are subject to and controlled according to subparts VVa, GGG or GGGa of this part.

The Big Moses Facility is not a natural gas processing plant. Therefore, Leak Detection and Repair (LDAR) requirements for onshore natural gas processing plants would not apply.

- g. Sweetening units located at onshore natural gas processing plants that process natural gas produced from either onshore or offshore wells.
- Each sweetening unit that processes natural gas is an affected facility; and
 - Each sweetening unit that processes natural gas followed by a sulfur recovery unit is an affected facility.
 - Facilities that have a design capacity less than 2 long tons per day (LT/D) of hydrogen sulfide (H₂S) in the acid gas (expressed as sulfur) are required to comply with recordkeeping and reporting requirements specified in §60.5423(c) but are not required to comply with §§60.5405 through 60.5407 and paragraphs 60.5410(g) and 60.5415(g) of this subpart.
 - Sweetening facilities producing acid gas that is completely reinjected into oil-or-gas-bearing geologic strata or that is otherwise not released to the atmosphere are not subject to §§60.5405 through 60.5407, 60.5410(g), 60.5415(g), and 60.5423 of this subpart.

There are no sweetening units at the Big Moses Facility. Therefore, all requirements regarding sweetening units under 40 CFR 60 Subpart OOOO would not apply.

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

Subpart ZZZZ establishes national emission limitations and operating limitations for HAPs emitted from stationary RICE located at major and area sources of HAP emissions. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations and operating limitations. The engines at the Big Moses Facility are subject to the area source requirements for non-emergency spark ignition engines.

The applicability requirements for new stationary RICEs located at an area source of HAPs, is the requirement to meet the standards of 40CFR60 Subpart JJJJ. These requirements were outlined above. The proposed engines meet these standards.

The following rules do not apply to the facility:

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

40CFR60 Subpart Kb does not apply to storage vessels with a capacity less than 75 cubic meters. The tanks that Icon has proposed to install are 33.39 cubic meters each. Therefore, Icon would not be 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, and on or Before August 23, 2011. The Big Moses Facility was constructed after August 23, 2011 and is not a natural gas processing plant, therefore, Icon would not be subject to this rule.

40CFR63 Subpart HH (National Emission Standards for Hazardous Air Pollutants for Oil and Natural Gas Production Facilities)

Subpart HH establishes national emission limitations and operating limitations for HAPs emitted from oil and natural gas production facilities located at major and area sources of HAP emissions. There are no glycol dehydration units at this facility, therefore, this rule does not apply.

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)

The Big Moses Facility is located in Tyler County which is an unclassified county for all criteria pollutants, therefore the Big Moses Facility is not applicable to 45CSR19.

As shown in the following table, Icon is not a major source subject to 45CSR14 or 45CSR19 review. According to 45CSR14 Section 2.43.e, fugitive emissions are not included in the major source determination because it is not listed as one of the source categories in Table 1. Therefore, the fugitive emissions are not included in the PTE on the following page.

Pollutant	PSD (45CSR14) Threshold (tpy)	NANSR (45CSR19) Threshold (tpy)	Big Moses (Icon + JB) Facility PTE (tpy)	45CSR14 or 45CSR19 Review Required?
Carbon Monoxide	250	NA	20.93	No
Nitrogen Oxides	250	NA	37.75	No
Sulfur Dioxide	250	NA	0.15	No
Particulate Matter 2.5	250	NA	3.27	No
Ozone (VOC)	250	NA	89.36	No

TOXICITY OF NON-CRITERIA REGULATED POLLUTANTS

The majority of non-criteria regulated pollutants fall under the definition of HAPs which, with some revision since, were 188 compounds identified under Section 112(b) of the Clean Air Act (CAA) as pollutants or groups of pollutants that EPA knows or suspects may cause cancer or other serious human health effects. The following table lists common HAP's emitted from these types of facilities and each HAP's carcinogenic risk (as based on analysis provided in the Integrated Risk Information System (IRIS)):

HAPs	Type	Known/Suspected Carcinogen	Classification
Formaldehyde	VOC	Yes	Category B1 - Probable Human Carcinogen
Benzene	VOC	Yes	Category A - Known Human Carcinogen
Ethylbenzene	VOC	No	Inadequate Data
Toluene	VOC	No	Inadequate Data
Xylenes	VOC	No	Inadequate Data

All HAPs have other non-carcinogenic chronic and acute effects. These adverse health effects may be associated with a wide range of ambient concentrations and exposure times and are influenced by source-specific characteristics such as emission rates and local meteorological conditions. Health impacts are also dependent on multiple factors that affect variability in humans such as genetics, age, health status (e.g., the presence of pre-existing disease) and lifestyle. As stated previously, *there are no federal or state ambient air quality standards for these specific chemicals*. For a complete discussion of the known health effects of each compound refer to the IRIS database located at www.epa.gov/iris.

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

“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.

There are no liquids or gas routed to or received from any other Icon facility. Additionally, the wells that serve this facility can be routed to other locations, which is currently occurring. The Icon Big Moses Facility is approximately 1.3 miles from the closest well that it will serve.

The contiguous Jay-Bee Oil & Gas Big Moses Station does share the same two-digit SIC code of 13. It is also under common control with the Icon facility. Therefore, because the Jay-Bee and Icon facilities share the same two-digit SIC code, are contiguous, and are under common control, the emissions from both facilities should be aggregated in determining major source or PSD status. The Icon facility will be assigned the same facility identification number as the Jay-Bee facility.

Aggregation of the emissions with the Jay-Bee facility would trigger the need for a Title V (45CSR30) Permit due to combined potential VOC emissions of the two (2) facilities exceeding 100 tons per year. However, upon startup of the Icon Big Moses facility, several emission sources at the contiguous Jay-Bee Big Moses Station will no longer be needed or needed in a reduced capacity. Sources that will be removed, will be removed within 30 days of start-up of the Icon facility and hourly restrictions on equipment with reduced utilization will begin immediately. Thus, annual VOC emissions of the combined facilities will be below 100 tons per year. This is shown on page 4 of this document. Therefore, a Title V permit is not required. A separate Class I administrative update application will be submitted to remove one (1) CAT3608 engine and associated compressor from the Jay-Bee permit and establish an hourly restriction on one (1) of the three (3) dehydration units to 1,750 hours per year and limit one (1) of the remaining CAT3608 engines to 1,000 hours per year of operation.

MONITORING OF OPERATIONS

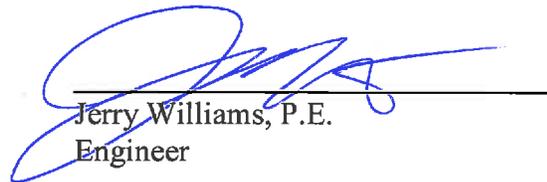
Icon will be required to perform the following monitoring and recordkeeping associated with this permit application:

- Monitor and record quantity of natural gas consumed for all combustion sources
- Monitor the presence of the combustor pilot flame with a thermocouple or equivalent
- Monitor opacity from all fuel burning units
- Monitor the storage tanks to ensure that all vapors are sent to the combustor
- Monitor and record the throughput for the loadouts
- Monitor all applicable requirements of 40CFR60 Subparts JJJJ and OOOO.
- Monitor and record the operating hours of the combustor
- Maintain records of testing conducted in accordance with the permit
- 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.
- Monitor the condensate and produced water truck loading
- The records shall be maintained on site or in a readily available off-site location

maintained by Icon for a period of five (5) years.

RECOMMENDATION TO DIRECTOR

The information provided in the permit application indicates Icon's Big Moses Liquids Management Facility meets all the requirements of applicable regulations. Therefore, impact on the surrounding area should be minimized and it is recommended that the Tyler County location should be granted a construction permit under 45CSR13.



Jerry Williams, P.E.
Engineer

APR 4 2016

Date

Icon Midstream Pipeline, LLC – Big Moses Liquids Management Facility

Facility Location: Alma, Tyler County, West Virginia
Mailing Address: 3130 Grants Lake Blvd. Suite 18859, Sugar Land, TX 77496
Facility Description: Natural Gas Liquids Management Facility
NAICS Codes: 211111
UTM Coordinates: 518.180 km Easting • 4364.529 km Northing • Zone 17
Permit Type: Construction
Description of Change: Construction and operation of a natural gas liquids facility.

Any person whose interest may be affected, including, but not necessarily limited to, the applicant and any person who participated in the public comment process, by a permit issued, modified or denied by the Secretary may appeal such action of the Secretary to the Air Quality Board pursuant to article one [§§22B-1-1 et seq], Chapter 22B of the Code of West Virginia. West Virginia Code §§22-5-14.

The source is not subject to 45CSR30.

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1.0. Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
CE-1	1E	Arrow VR 260 Flash Gas Compressor	2016	47 hp	1C (NSCR)
CE-2	2E	Cummins G8.3 Compressor Engine	2016	118 hp	2C (NSCR)
HTR-1	3E	Line Heater	2016	0.25 MMBTU/hr	None
HTR-2	4E	Separator Heater	2016	1.0 MMBTU/hr	None
T01	5E/6E	Condensate Tank	2016	210 bbl	VRU-1 / EC-1
T02	5E/6E	Condensate Tank	2016	210 bbl	VRU-1 / EC-1
T03	5E/6E	Condensate Tank	2016	210 bbl	VRU-1 / EC-1
T04	5E/6E	Condensate Tank	2016	210 bbl	VRU-1 / EC-1
T05	5E/6E	Condensate Tank	2016	210 bbl	VRU-1 / EC-1
T06	7E	Produced Water Tank	2016	210 bbl	VRU-1 / EC-1
EC-1	6E	Enclosed Combustor	2016	10 MMBTU/hr	NA
TL-1	6E	Condensate Truck Loading	2016	1,050,000 gal/yr	EC-1
TL-2	8E	Produced Water Truck Loading	2016	58,800 gal/yr	None

1.1. Control Devices

Emission Unit	Pollutant	Control Device	Control Efficiency
CE-1 Compressor Engine	Nitrogen Oxides	Non Selective Catalytic Reduction (NSCR)	84.4 %
	Carbon Monoxide		21.6 %
CE-2 Compressor Engine	Nitrogen Oxides	Non Selective Catalytic Reduction (NSCR)	92 %
	Carbon Monoxide		77 %
T01 – T05 Condensate Tanks	Volatile Organic Compounds	Enclosed Combustor	98 %
	Total HAPs		98 %
TL-1 Condensate Truck Loading	Volatile Organic Compounds	Vapor Return/ Combustion	93.7 % (98.7 % NSPS capture, 95% control)

2.0. General Conditions

2.1. Definitions

- 2.1.1. All references to the “West Virginia Air Pollution Control Act” or the “Air Pollution Control Act” mean those provisions contained in W.Va. Code §§ 22-5-1 to 22-5-18.
- 2.1.2. The “Clean Air Act” means those provisions contained in 42 U.S.C. §§ 7401 to 7671q, and regulations promulgated thereunder.
- 2.1.3. “Secretary” means the Secretary of the Department of Environmental Protection or such other person to whom the Secretary has delegated authority or duties pursuant to W.Va. Code §§ 22-1-6 or 22-1-8 (45CSR§30-2.12.). The Director of the Division of Air Quality is the Secretary’s designated representative for the purposes of this permit.

2.2. Acronyms

CAAA	Clean Air Act Amendments	NO_x	Nitrogen Oxides
CBI	Confidential Business Information	NSPS	New Source Performance Standards
CEM	Continuous Emission Monitor	PM	Particulate Matter
CES	Certified Emission Statement	PM_{2.5}	Particulate Matter less than 2.5 μm in diameter
C.F.R. or CFR	Code of Federal Regulations	PM₁₀	Particulate Matter less than 10μm in diameter
CO	Carbon Monoxide	Ppb	Pounds per Batch
C.S.R. or CSR	Codes of State Rules	Pph	Pounds per Hour
DAQ	Division of Air Quality	Ppm	Parts per Million
DEP	Department of Environmental Protection	Ppmv or ppmv	Parts per Million by Volume
dscm	Dry Standard Cubic Meter	PSD	Prevention of Significant Deterioration
FOIA	Freedom of Information Act	Psi	Pounds per Square Inch
HAP	Hazardous Air Pollutant	SIC	Standard Industrial Classification
HON	Hazardous Organic NESHAP	SIP	State Implementation Plan
HP	Horsepower	SO₂	Sulfur Dioxide
lbs/hr	Pounds per Hour	TAP	Toxic Air Pollutant
LDAR	Leak Detection and Repair	TPY	Tons per Year
M	Thousand	TRS	Total Reduced Sulfur
MACT	Maximum Achievable Control Technology	TSP	Total Suspended Particulate
MDHI	Maximum Design Heat Input	USEPA	United States Environmental Protection Agency
MM	Million	UTM	Universal Transverse Mercator
MMBtu/hr or mmbtu/hr	Million British Thermal Units per Hour	VEE	Visual Emissions Evaluation
MMCF/hr or mmcf/hr	Million Cubic Feet per Hour	VOC	Volatile Organic Compounds
NA	Not Applicable	VOL	Volatile Organic Liquids
NAAQS	National Ambient Air Quality Standards		
NESHAPS	National Emissions Standards for Hazardous Air Pollutants		

2.3. Authority

This permit is issued in accordance with West Virginia Air Pollution Control Act W.Va. Code §§ 22-5-1. et seq. and the following Legislative Rules promulgated thereunder:

- 2.3.1. 45CSR13 – *Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits and Procedures for Evaluation;*

2.4. Term and Renewal

- 2.4.1. Permit shall remain valid, continuous and in effect unless it is revised, suspended, revoked or otherwise changed under an applicable provision of 45CSR13 or any other applicable legislative rule;

2.5. Duty to Comply

- 2.5.1. The permitted facility shall be constructed and operated in accordance with the plans and specifications filed in Permit Application R13-3293, and any modifications, administrative updates, or amendments thereto. The Secretary may suspend or revoke a permit if the plans and specifications upon which the approval was based are not adhered to:
[45CSR§§13-5.11 and 10.3.]
- 2.5.2. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the West Virginia Code and the Clean Air Act and is grounds for enforcement action by the Secretary or USEPA;
- 2.5.3. Violations of any of the conditions contained in this permit, or incorporated herein by reference, may subject the permittee to civil and/or criminal penalties for each violation and further action or remedies as provided by West Virginia Code 22-5-6 and 22-5-7;
- 2.5.4. Approval of this permit does not relieve the permittee herein of the responsibility to apply for and obtain all other permits, licenses, and/or approvals from other agencies; i.e., local, state, and federal, which may have jurisdiction over the construction and/or operation of the source(s) and/or facility herein permitted.

2.6. Duty to Provide Information

The permittee shall furnish to the Secretary within a reasonable time any information the Secretary may request in writing to determine whether cause exists for administratively updating, modifying, revoking, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Secretary copies of records to be kept by the permittee. For information claimed to be confidential, the permittee shall furnish such records to the Secretary along with a claim of confidentiality in accordance with 45CSR31. If confidential information is to be sent to USEPA, the permittee shall directly provide such information to USEPA along with a claim of confidentiality in accordance with 40 C.F.R. Part 2.

2.7. Duty to Supplement and Correct Information

Upon becoming aware of a failure to submit any relevant facts or a submittal of incorrect information in any permit application, the permittee shall promptly submit to the Secretary such supplemental facts or corrected information.

2.8. Administrative Update

The permittee may request an administrative update to this permit as defined in and according to the procedures specified in 45CSR13.
[45CSR§13-4.]

2.9. Permit Modification

The permittee may request a minor modification to this permit as defined in and according to the procedures specified in 45CSR13.
[45CSR§13-5.4.]

2.10 Major Permit Modification

The permittee may request a major modification as defined in and according to the procedures specified in 45CSR14 or 45CSR19, as appropriate.
[45CSR§13-5.1]

2.11. Inspection and Entry

The permittee shall allow any authorized representative of the Secretary, upon the presentation of credentials and other documents as may be required by law, to perform the following:

- a. At all reasonable times (including all times in which the facility is in operation) enter upon the permittee's premises where a source is located or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- c. Inspect at reasonable times (including all times in which the facility is in operation) any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
- d. Sample or monitor at reasonable times substances or parameters to determine compliance with the permit or applicable requirements or ascertain the amounts and types of air pollutants discharged.

2.12. Emergency

- 2.12.1. An "emergency" means any situation arising from sudden and reasonable unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by

improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

- 2.12.2. Effect of any emergency. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions of Section 2.12.3 are met.
- 2.12.3. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:
- a. An emergency occurred and that the permittee can identify the cause(s) of the emergency;
 - b. The permitted facility was at the time being properly operated;
 - c. During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and
 - d. The permittee submitted notice of the emergency to the Secretary within one (1) working day of the time when emission limitations were exceeded due to the emergency and made a request for variance, and as applicable rules provide. This notice must contain a detailed description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.
- 2.12.4. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.
- 2.12.5. The provisions of this section are in addition to any emergency or upset provision contained in any applicable requirement.

2.13. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a permittee in an enforcement action that it should have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. However, nothing in this paragraph shall be construed as precluding consideration of a need to halt or reduce activity as a mitigating factor in determining penalties for noncompliance if the health, safety, or environmental impacts of halting or reducing operations would be more serious than the impacts of continued operations.

2.14. Suspension of Activities

In the event the permittee should deem it necessary to suspend, for a period in excess of sixty (60) consecutive calendar days, the operations authorized by this permit, the permittee shall notify the Secretary, in writing, within two (2) calendar weeks of the passing of the sixtieth (60) day of the suspension period.

2.15. Property Rights

This permit does not convey any property rights of any sort or any exclusive privilege.

2.16. Severability

The provisions of this permit are severable and should any provision(s) be declared by a court of competent jurisdiction to be invalid or unenforceable, all other provisions shall remain in full force and effect.

2.17. Transferability

This permit is transferable in accordance with the requirements outlined in Section 10.1 of 45CSR13. [45CSR§13-10.1.]

2.18. Notification Requirements

The permittee shall notify the Secretary, in writing, no later than thirty (30) calendar days after the actual startup of the operations authorized under this permit.

2.19. Credible Evidence

Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defense otherwise available to the permittee including, but not limited to, any challenge to the credible evidence rule in the context of any future proceeding.

3.0. Facility-Wide Requirements

3.1. Limitations and Standards

- 3.1.1. **Open burning.** The open burning of refuse by any person, firm, corporation, association or public agency is prohibited except as noted in 45CSR§6-3.1.
[45CSR§6-3.1.]
- 3.1.2. **Open burning exemptions.** The exemptions listed in 45CSR§6-3.1 are subject to the following stipulation: Upon notification by the Secretary, no person shall cause, suffer, allow or permit any form of open burning during existing or predicted periods of atmospheric stagnation. Notification shall be made by such means as the Secretary may deem necessary and feasible.
[45CSR§6-3.2.]
- 3.1.3. **Asbestos.** The permittee is responsible for thoroughly inspecting the facility, or part of the facility, prior to commencement of demolition or renovation for the presence of asbestos and complying with 40 C.F.R. § 61.145, 40 C.F.R. § 61.148, and 40 C.F.R. § 61.150. The permittee, owner, or operator must notify the Secretary at least ten (10) working days prior to the commencement of any asbestos removal on the forms prescribed by the Secretary if the permittee is subject to the notification requirements of 40 C.F.R. § 61.145(b)(3)(i). The USEPA, the Division of Waste Management, and the Bureau for Public Health - Environmental Health require a copy of this notice to be sent to them.
[40CFR§61.145(b) and 45CSR§34]
- 3.1.4. **Odor.** No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor at any location occupied by the public.
[45CSR§4-3.1] *[State Enforceable Only]*
- 3.1.5. **Permanent shutdown.** A source which has not operated at least 500 hours in one 12-month period within the previous five (5) year time period may be considered permanently shutdown, unless such source can provide to the Secretary, with reasonable specificity, information to the contrary. All permits may be modified or revoked and/or reapplication or application for new permits may be required for any source determined to be permanently shutdown.
[45CSR§13-10.5.]
- 3.1.6. **Standby plan for reducing emissions.** When requested by the Secretary, the permittee shall prepare standby plans for reducing the emissions of air pollutants in accordance with the objectives set forth in Tables I, II, and III of 45CSR11.
[45CSR§11-5.2.]

3.2. Monitoring Requirements *[Reserved]*

3.3. Testing Requirements

- 3.3.1. **Stack testing.** As per provisions set forth in this permit or as otherwise required by the Secretary, in accordance with the West Virginia Code, underlying regulations, permits and orders, the permittee shall conduct test(s) to determine compliance with the emission limitations set forth in this permit and/or established or set forth in underlying documents. The Secretary, or his duly authorized representative, may at his option witness or conduct such test(s). Should the Secretary exercise his option to conduct such test(s), the operator shall provide all necessary sampling

connections and sampling ports to be located in such manner as the Secretary may require, power for test equipment and the required safety equipment, such as scaffolding, railings and ladders, to comply with generally accepted good safety practices. Such tests shall be conducted in accordance with the methods and procedures set forth in this permit or as otherwise approved or specified by the Secretary in accordance with the following:

- a. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with 40 C.F.R. Parts 60, 61, and 63 in accordance with the Secretary's delegated authority and any established equivalency determination methods which are applicable. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit may be revised in accordance with 45CSR§13-4. or 45CSR§13-5.4 as applicable.
- b. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with applicable requirements which do not involve federal delegation. In specifying or approving such alternative testing to the test methods, the Secretary, to the extent possible, shall utilize the same equivalency criteria as would be used in approving such changes under Section 3.3.1.a. of this permit. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit may be revised in accordance with 45CSR§13-4. or 45CSR§13-5.4 as applicable.
- c. All periodic tests to determine mass emission limits from or air pollutant concentrations in discharge stacks and such other tests as specified in this permit shall be conducted in accordance with an approved test protocol. Unless previously approved, such protocols shall be submitted to the Secretary in writing at least thirty (30) days prior to any testing and shall contain the information set forth by the Secretary. In addition, the permittee shall notify the Secretary at least fifteen (15) days prior to any testing so the Secretary may have the opportunity to observe such tests. This notification shall include the actual date and time during which the test will be conducted and, if appropriate, verification that the tests will fully conform to a referenced protocol previously approved by the Secretary.
- d. The permittee shall submit a report of the results of the stack test within sixty (60) days of completion of the test. The test report shall provide the information necessary to document the objectives of the test and to determine whether proper procedures were used to accomplish these objectives. The report shall include the following: the certification described in paragraph 3.5.1.; a statement of compliance status, also signed by a responsible official; and, a summary of conditions which form the basis for the compliance status evaluation. The summary of conditions shall include the following:
 1. The permit or rule evaluated, with the citation number and language;
 2. The result of the test for each permit or rule condition; and,
 3. A statement of compliance or noncompliance with each permit or rule condition.

[WV Code § 22-5-4(a)(14-15) and 45CSR13]

3.4. Recordkeeping Requirements

- 3.4.1. **Retention of records.** The permittee shall maintain records of all information (including monitoring data, support information, reports, and notifications) required by this permit recorded in a form suitable and readily available for expeditious inspection and review. Support information

includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation. The files shall be maintained for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be maintained on site. The remaining three (3) years of data may be maintained off site, but must remain accessible within a reasonable time. Where appropriate, the permittee may maintain records electronically (on a computer, on computer floppy disks, CDs, DVDs, or magnetic tape disks), on microfilm, or on microfiche.

- 3.4.2. **Odors.** For the purposes of 45CSR4, the permittee shall maintain a record of all odor complaints received, any investigation performed in response to such a complaint, and any responsive action(s) taken.

[45CSR§4. *State Enforceable Only.*]

3.5. Reporting Requirements

- 3.5.1. **Responsible official.** Any application form, report, or compliance certification required by this permit to be submitted to the DAQ and/or USEPA shall contain a certification by the responsible official that states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- 3.5.2. **Confidential information.** A permittee may request confidential treatment for the submission of reporting required by this permit pursuant to the limitations and procedures of W.Va. Code § 22-5-10 and 45CSR31.
- 3.5.3. **Correspondence.** All notices, requests, demands, submissions and other communications required or permitted to be made to the Secretary of DEP and/or USEPA shall be made in writing and shall be deemed to have been duly given when delivered by hand, or mailed first class with postage prepaid to the address(es) set forth below or to such other person or address as the Secretary of the Department of Environmental Protection may designate:

If to the DAQ:

Director
WVDEP
Division of Air Quality
601 57th Street
Charleston, WV 25304-2345

If to the US EPA:

Associate Director
Office of Air Enforcement and Compliance Assistance
(3AP20)
U.S. Environmental Protection Agency
Region III
1650 Arch Street
Philadelphia, PA 19103-2029

3.5.4. Operating Fee

- 3.5.4.1. In accordance with 45CSR22 – Air Quality Management Fee Program, the permittee shall not operate nor cause to operate the permitted facility or other associated facilities on the same or contiguous sites comprising the plant without first obtaining and having in current effect a Certificate to Operate (CTO). Such Certificate to Operate (CTO) shall be renewed annually, shall be maintained on the premises for which the certificate has been issued, and shall be made immediately available for inspection by the Secretary or his/her duly authorized representative.

- 3.5.4.2. In accordance with 45CSR22 – Air Quality Management Fee Program, enclosed with this permit is an Application for a Certificate to Operate (CTO). The CTO will cover the time period beginning with the date of initial startup through the following June 30. Said application and the appropriate fee shall be submitted to this office prior to the date of initial startup. For any startup date other than July 1, the permittee shall pay a fee or prorated fee in accordance with Section 4.5 of 45CSR22. A copy of this schedule may be found on the reverse side of the CTO application.
- 3.5.5. **Emission inventory.** At such time(s) as the Secretary may designate, the permittee herein shall prepare and submit an emission inventory for the previous year, addressing the emissions from the facility and/or process(es) authorized herein, in accordance with the emission inventory submittal requirements of the Division of Air Quality. After the initial submittal, the Secretary may, based upon the type and quantity of the pollutants emitted, establish a frequency other than on an annual basis.

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4.0. Source-Specific Requirements

4.1. Limitations and Standards

- 4.1.1. **Record of Monitoring.** The permittee shall keep records of monitoring information that include the following:
- a. The date, place as defined in this permit, and time of sampling or measurements;
 - b. The date(s) analyses were performed;
 - c. The company or entity that performed the analyses;
 - d. The analytical techniques or methods used;
 - e. The results of the analyses; and
 - f. The operating conditions existing at the time of sampling or measurement.
- 4.1.2. **Minor Source of Hazardous Air Pollutants (HAP).** HAP emissions from the facility shall be less than 10 tons/year of any single HAP or 25 tons/year of any combination of HAPs. Compliance with this Section shall ensure that the facility is a minor HAP source.
- 4.1.3. **Operation and Maintenance of Air Pollution Control Equipment.** The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Section 1.0 and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.
[45CSR§13-5.11.]
- 4.1.4. **Record of Malfunctions of Air Pollution Control Equipment.** For all air pollution control equipment listed in Section 1.0, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:
- a. The equipment involved.
 - b. Steps taken to minimize emissions during the event.
 - c. The duration of the event.
 - d. The estimated increase in emissions during the event.

For each such case associated with an equipment malfunction, the additional information shall also be recorded:

- e. The cause of the malfunction.
 - f. Steps taken to correct the malfunction.
 - g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.
- 4.1.5. The permittee shall install, maintain, and operate all above-ground piping, valves, pumps, etc. that service lines in the transport of potential sources of regulated air pollutants to minimize any fugitive escape of regulated air pollutants (leak). Any above-ground piping, valves, pumps, etc. that shows signs of excess wear and that have a reasonable potential for fugitive emissions of regulated air pollutants shall be repaired or replaced as needed.

- 4.1.6. The permittee shall monitor and maintain quarterly records (calendar year) for each facility component that was inspected for fugitive escape of regulated air pollutants. Each component shall operate with no detectable emissions, as determined using audio-visual-olfactory (AVO) inspections, USEPA 40CFR60 Method 21, USEPA alternative work practice to detect leaks from equipment using optical gas imaging (OGI) camera (ex. FLIR camera), or some combination thereof. AVO inspections shall include, but not limited to, defects as visible cracks, holes, or gaps in piping; loose connections; liquid leaks; or broken or missing caps or other closure devices. If permittee uses USEPA Method 21, then no detectable emissions is defined as less than 500 ppm in accordance with Method 21. If permittee uses an OGI camera, then no detectable emissions is defined as no visible leaks detected in accordance with USEPA alternative OGI work practices.

If any leak is detected, the permittee shall repair the leak as soon as possible. The first attempt at repair must be made within five (5) calendar days of discovering the leak, and the final repair must be made within fifteen (15) calendar days of discovering the leak. The permittee shall record each leak detected and the associated repair. The leak will not be considered repaired until the same monitoring method or a more detailed instrument determines the leak is repaired.

Delay of repair of a closed vent system for which leaks or defects have been detected is allowed if the repair is technically infeasible without a shutdown, or if you determine that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. You must complete repair of such equipment by the end of the next shutdown.
[45CSR§13-5.11.]

- 4.1.7. The NGL truck loading shall be done through vapor balance between the pressurized storage vessels and the pressurized tanker trucks.
- 4.1.8. No longer than 30 days after start-up of any piece of equipment at this facility, the permittee shall make the following changes to the contiguous Jay-Bee Oil & Gas Big Moses Station:
- a. Removal of one (1) Caterpillar 3608 RICE;
 - b. Hourly restriction on one (1) of the three (3) glycol dehydration units to limit 1,750 hours per year of operation;
 - c. Hourly restriction of one (1) Caterpillar G3608 RICE to 1,000 hours per year of operation; and
 - d. Establishment of facility 095-00027 (Icon and Jay-Bee) as a minor source.

5.0. Source-Specific Requirements [Reciprocating Internal Combustion Engines (RICE) (CE-1, CE-2)]

5.1. Limitations and Standards

- 5.1.1. Maximum emissions from each of the 47 hp natural gas fired reciprocating engine, Arrow VR 260 (CE-1) shall not exceed the following limits:

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
Nitrogen Oxides	0.21	0.91
Carbon Monoxide	0.41	1.81
Volatile Organic Compounds	0.01	0.06
Formaldehyde	0.01	0.04

- 5.1.2. Maximum emissions from the 118 hp natural gas reciprocating engine, Cummins G8.3 (2E) shall not exceed the following limits:

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
Nitrogen Oxides	0.26	1.14
Carbon Monoxide	0.52	2.28
Volatile Organic Compounds	0.03	0.13
Formaldehyde	0.02	0.09

- 5.1.3. The applicable RICEs (CE-1, CE-2) shall be operated and maintained as follows:

- a. In accordance with the manufacturer's recommendations and specifications or in accordance with a site specific maintenance plan, and,
- b. In a manner consistent with good operating practices.

- 5.1.4. Requirements for Use of Catalytic Reduction Devices

- a. Rich-burn natural gas-fired compressor engine (CE-1, CE-2) equipped with non-selective catalytic reduction (NSCR) air pollution control devices shall be fitted with a closed-loop, automatic air/fuel ratio controller to ensure emissions of regulated pollutants do not exceed the emission limits for any engine/NSCR combination under varying load. The closed-loop, automatic air/fuel ratio controller shall control a fuel metering valve to ensure a fuel-rich mixture and a resultant exhaust oxygen content of less than or equal to 2%.
- b. For natural gas compressor engines (CE-1, CE-2), the permittee shall monitor the temperature to the inlet of the catalyst and in accordance with manufacturer's specifications; a high temperature alarm shall shut off the engine before thermal deactivation of the catalyst occurs. If the engine shuts off due to high temperature, the permittee shall also check for thermal deactivation of the catalyst before normal operations are resumed.
- c. The permittee shall follow a written operation and maintenance plan that provides the periodic and annual maintenance requirements.

- 5.1.5. The permittee shall comply with all applicable NSPS for Stationary Spark Ignition Internal Combustion Engines specified in 40 CFR Part 60, Subpart JJJJ, and/or the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Spark Ignition Internal Combustion Engines specified in 40 CFR Part 63, Subpart ZZZZ.

- 5.1.6. The emission limitations specified in permit conditions 5.1.1 – 5.1.2 shall apply at all times except during periods of start-up and shut-down provided that the duration of these periods does not exceed 30 minutes per occurrence. The permittee shall operate the engine in a manner consistent with good air pollution control practices for minimizing emissions at all times, including periods of start-up and shut-down. The emissions from start-up and shut-down shall be included in the twelve (12) month rolling total of emissions. The permittee shall comply with all applicable start-up and shut-down requirements in accordance with 40 CFR Part 60, Subpart JJJJ and 40 CFR Part 63, Subpart ZZZZ.

5.2. Monitoring Requirements

5.2.1. Catalytic Reduction Devices

- a. The permittee shall regularly inspect, properly maintain and/or replace catalytic reduction devices and auxiliary air pollution control devices to ensure functional and effective operation of the engine's physical and operational design. The permittee shall ensure proper operation, maintenance and performance of catalytic reduction devices and auxiliary air pollution control devices by:
1. Maintaining proper operation of the automatic air/fuel ratio controller or automatic feedback controller.
 2. Following the catalyst manufacturer emissions related operating and maintenance recommendations, or develop, implement, or follow a site-specific maintenance plan.

5.3. Recordkeeping Requirements

- 5.3.1. To demonstrate compliance with permit condition 5.1.4, the permittee shall maintain records of the maintenance performed on each RICE (CE-1, CE-2)
- 5.3.2. To demonstrate compliance with permit conditions 5.1.3 and 5.2.1, the permittee shall maintain a copy of the site specific maintenance plan or manufacturer maintenance plan.
- 5.3.3. The permittee shall comply with all applicable recordkeeping requirements under NSPS for Stationary Compression Ignition Internal Combustion Engines specified in 40 CFR Part 60, Subpart JJJJ, and/or the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Spark Ignition Internal Combustion Engines specified in 40 CFR Part 63, Subpart ZZZZ.
- 5.3.4. All records required by this section shall be maintained in accordance with permit condition.

5.4. Testing Requirements

- 5.4.1. The permittee shall comply with all applicable testing requirements under NSPS for Stationary Spark Ignition Internal Combustion Engines specified in 40 CFR Part 60, Subpart JJJJ, and/or the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Spark Ignition Internal Combustion Engines specified in 40 CFR Part 63, Subpart ZZZZ.
- 5.4.2. To demonstrate compliance with permit condition 5.1.4(a), the permittee shall verify that the closed-loop, automatic air/fuel ratio controller shall control a fuel metering valve to ensure a fuel-rich mixture and a resultant exhaust oxygen content of less than or equal to 2% during any performance testing.

5.5. Reporting Requirements

- 5.5.1. The permittee shall comply with all applicable notification requirements under NSPS for Stationary Spark Ignition Internal Combustion Engines specified in 40 CFR Part 60, Subpart JJJJ, and/or the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Spark Ignition Internal Combustion Engines specified in 40 CFR Part 63, Subpart ZZZZ.

6.0. Source-Specific Requirements (40CFR60 Subpart JJJJ Requirements, CE-1, CE-2)

6.1. Limitations and Standards

- 6.1.1. If you are an owner or operator of an area source subject to this subpart, you are exempt from the obligation to obtain a permit under 40 CFR part 70 or 40 CFR part 71, provided you are not required to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a) for a reason other than your status as an area source under this subpart. Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart as applicable. [40CFR§60.4230(c)]
- 6.1.2. Stationary SI ICE may be eligible for exemption from the requirements of this subpart as described in 40 CFR part 1068, subpart C (or the exemptions described in 40 CFR parts 90 and 1048, for engines that would need to be certified to standards in those parts), except that owners and operators, as well as manufacturers, may be eligible to request an exemption for national security. [40CFR§60.4230(e)]

6.2. Emission Standards for Owners and Operators

- 6.2.1. Owners and operators of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) and less than 75 KW (100 HP) (except gasoline and rich burn engines that use LPG) must comply with the emission standards for field testing in 40 CFR 1048.101(c) for their non-emergency stationary SI ICE and with the emission standards in Table 1 to this subpart for their emergency stationary SI ICE. Owners and operators of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) and less than 75 KW (100 HP) manufactured prior to January 1, 2011, that were certified to the standards in Table 1 to this subpart applicable to engines with a maximum engine power greater than or equal to 100 HP and less than 500 HP, may optionally choose to meet those standards. [40CFR§60.4233(d)]
- 6.2.2. Owners and operators of stationary SI ICE with a maximum engine power greater than or equal to 75 KW (100 HP) (except gasoline and rich burn engines that use LPG) must comply with the emission standards in Table 1 to this subpart for their stationary SI ICE. For owners and operators of stationary SI ICE with a maximum engine power greater than or equal to 100 HP (except gasoline and rich burn engines that use LPG) manufactured prior to January 1, 2011 that were certified to the certification emission standards in 40 CFR part 1048 applicable to engines that are not severe duty engines, if such stationary SI ICE was certified to a carbon monoxide (CO) standard above the standard in Table 1 to this subpart, then the owners and operators may meet the CO certification (not field testing) standard for which the engine was certified. [40CFR§60.4233(e)]
- 6.2.3. Owners and operators of stationary SI ICE that are required to meet standards that reference 40 CFR 1048.101 must, if testing their engines in use, meet the standards in that section applicable to field testing, except as indicated in paragraph (e) of this section. [40CFR§60.4233(h)]

- 6.2.4. Owners and operators of stationary SI ICE must operate and maintain stationary SI ICE that achieve the emission standards as required in §60.4233 over the entire life of the engine. **[40CFR§60.4234]**

6.3. Other Requirements for Owners and Operators

- 6.3.1. After July 1, 2010, owners and operators may not install stationary SI ICE with a maximum engine power of less than 500 HP that do not meet the applicable requirements in §60.4233. **[40CFR§60.4236(a)]**
- 6.3.2. The requirements of this section do not apply to owners and operators of stationary SI ICE that have been modified or reconstructed, and they do not apply to engines that were removed from one existing location and reinstalled at a new location. **[40CFR§60.4236(e)]**

6.4. Compliance Requirements for Owners and Operators

- 6.4.1. If you are an owner or operator of a stationary SI internal combustion engine and must comply with the emission standards specified in §60.4233(d) or (e), you must demonstrate compliance according to one of the methods specified in paragraphs (b)(1) and (2) of this section.
- a. Purchasing an engine certified according to procedures specified in this subpart, for the same model year and demonstrating compliance according to one of the methods specified in paragraph (a) of this section.
 - b. Purchasing a non-certified engine and demonstrating compliance with the emission standards specified in §60.4233(d) or (e) and according to the requirements specified in §60.4244, as applicable, and according to paragraphs (b)(2)(i) and (ii) of this section.
 1. If you are an owner or operator of a stationary SI internal combustion engine greater than 25 HP and less than or equal to 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance.
 2. If you are an owner or operator of a stationary SI internal combustion engine greater than 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test and conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance. **[40CFR§60.4243(b)]**
- 6.4.2. If you are an owner or operator of a stationary SI internal combustion engine that is less than or equal to 500 HP and you purchase a non-certified engine or you do not operate and maintain your certified stationary SI internal combustion engine and control device according to the manufacturer's written emission-related instructions, you are required to perform initial performance testing as indicated in this section, but you are not required to conduct subsequent performance testing unless the stationary engine is rebuilt or undergoes major repair or maintenance. A rebuilt stationary SI ICE means an engine that has been rebuilt as that term is defined in 40 CFR 94.11(a). **[40CFR§60.4243(f)]**

- 6.4.3. It is expected that air-to-fuel ratio controllers will be used with the operation of three-way catalysts/non-selective catalytic reduction. The AFR controller must be maintained and operated appropriately in order to ensure proper operation of the engine and control device to minimize emissions at all times. [40CFR§60.4243(g)]

6.5. Testing Requirements for Owners and Operators

- 6.5.1. Owners and operators of stationary SI ICE who conduct performance tests must follow the procedures in paragraphs (a) through (f) of this section.
- Each performance test must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and according to the requirements in §60.8 and under the specific conditions that are specified by Table 2 to this subpart. [40CFR§60.4244(a)]
 - You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in §60.8(c). If your stationary SI internal combustion engine is non-operational, you do not need to startup the engine solely to conduct a performance test; however, you must conduct the performance test immediately upon startup of the engine. [40CFR§60.4244(b)]
 - You must conduct three separate test runs for each performance test required in this section, as specified in §60.8(f). Each test run must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and last at least 1 hour. [40CFR§60.4244(c)]
 - To determine compliance with the NO_x mass per unit output emission limitation, convert the concentration of NO_x in the engine exhaust using Equation 1 of this section:

$$ER = \frac{C_d \times 1.912 \times 10^{-3} \times Q \times T}{HP - hr} \quad (\text{Eq. 1})$$

Where:

ER = Emission rate of NO_x in g/HP-hr.

C_d = Measured NO_x concentration in parts per million by volume (ppmv).

1.912 × 10⁻³ = Conversion constant for ppm NO_x to grams per standard cubic meter at 20 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meter per hour, dry basis.

T = Time of test run, in hours.

HP-hr = Brake work of the engine, horsepower-hour (HP-hr).

[40CFR§60.4244(d)]

- To determine compliance with the CO mass per unit output emission limitation, convert the concentration of CO in the engine exhaust using Equation 2 of this section:

$$ER = \frac{C_d \times 1.164 \times 10^{-3} \times Q \times T}{HP - hr} \quad (\text{Eq. 2})$$

Where:

ER = Emission rate of CO in g/HP-hr.

C_d = Measured CO concentration in ppmv.

1.164×10^{-3} = Conversion constant for ppm CO to grams per standard cubic meter at 20 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meters per hour, dry basis.

T = Time of test run, in hours.

HP-hr = Brake work of the engine, in HP-hr.

[40CFR§60.4244(e)]

- f. For purposes of this subpart, when calculating emissions of VOC, emissions of formaldehyde should not be included. To determine compliance with the VOC mass per unit output emission limitation, convert the concentration of VOC in the engine exhaust using Equation 3 of this section:

$$ER = \frac{C_d \times 1.833 \times 10^{-3} \times Q \times T}{HP - hr} \quad (\text{Eq. 3})$$

Where:

ER = Emission rate of VOC in g/HP-hr.

C_d = VOC concentration measured as propane in ppmv.

1.833×10^{-3} = Conversion constant for ppm VOC measured as propane, to grams per standard cubic meter at 20 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meters per hour, dry basis.

T = Time of test run, in hours.

HP-hr = Brake work of the engine, in HP-hr.

[40CFR§60.4244(f)]

- g. If the owner/operator chooses to measure VOC emissions using either Method 18 of 40 CFR part 60, appendix A, or Method 320 of 40 CFR part 63, appendix A, then it has the option of correcting the measured VOC emissions to account for the potential differences in measured values between these methods and Method 25A. The results from Method 18 and Method 320 can be corrected for response factor differences using Equations 4 and 5 of this section. The corrected VOC concentration can then be placed on a propane basis using Equation 6 of this section.

$$RF_i = \frac{C}{C_{Ai}} \quad (\text{Eq. 4})$$

Where:

RF_i = Response factor of compound i when measured with EPA Method 25A.

C_{Mi} = Measured concentration of compound i in ppmv as carbon.

C_{Ai} = True concentration of compound i in ppmv as carbon.

$$C_{\text{corr}} = RF_i \times C_{\text{imeas}} \quad (\text{Eq. 5})$$

Where:

C_{icorr} = Concentration of compound i corrected to the value that would have been measured by EPA Method 25A, ppmv as carbon.

C_{imeas} = Concentration of compound i measured by EPA Method 320, ppmv as carbon.

$$C_{\text{Peq}} = 0.6098 \times C_{\text{icorr}} \quad (\text{Eq. 6})$$

Where:

C_{Peq} = Concentration of compound i in mg of propane equivalent per DSCM.

[40CFR§60.4244(g)]

6.6. Notification, Reports, and Records for Owners and Operators

6.6.1. Owners or operators of stationary SI ICE must meet the following notification, reporting and recordkeeping requirements.

a. Owners and operators of all stationary SI ICE must keep records of the information in paragraphs (a)(1) through (4) of this section.

1. All notifications submitted to comply with this subpart and all documentation supporting any notification.
2. Maintenance conducted on the engine.
3. If the stationary SI internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR parts 90 and 1048.
4. If the stationary SI internal combustion engine is not a certified engine or is a certified engine operating in a non-certified manner and subject to §60.4243(a)(2), documentation that the engine meets the emission standards.

[40CFR§60.4245(a)]

b. For all stationary SI emergency ICE greater than or equal to 500 HP manufactured on or after July 1, 2010, that do not meet the standards applicable to non-emergency engines, the owner or operator of must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. For all stationary SI emergency ICE greater than or equal to 130 HP and less than 500 HP manufactured on or after July 1, 2011 that do not meet the standards applicable to non-emergency engines, the owner or operator of must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. For all stationary SI emergency ICE greater than 25 HP and less than 130 HP manufactured on or after July 1, 2008, that do not meet the standards applicable to non-emergency engines, the owner or operator of must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. [40CFR§60.4245(b)]

c. Owners and operators of stationary SI ICE greater than or equal to 500 HP that have not been certified by an engine manufacturer to meet the emission standards in §60.4231 must submit an initial notification as required in §60.7(a)(1). The notification must include the information in paragraphs (c)(1) through (5) of this section.

1. Name and address of the owner or operator;
2. The address of the affected source;
3. Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;
4. Emission control equipment; and
5. Fuel used.

[40CFR§60.4245(c)]

- d. Owners and operators of stationary SI ICE that are subject to performance testing must submit a copy of each performance test as conducted in §60.4244 within 60 days after the test has been completed. [40CFR§60.4245(d)]

7.0. Source-Specific Requirements (40CFR63 Subpart ZZZZ Requirements, CE-1, CE-2)

7.1. Limitations and Standards

- 7.1.1. The permittee must comply with the applicable operating limitations in this section no later than October 19, 2013.
[40 C.F.R. § 63.6595(a)]

- 7.1.2. *Stationary RICE subject to Regulation under 40 CFR Part 60.* An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of this section must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart IIII, for compression ignition engines or 40 CFR part 60 subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under this part.

The permittee meets the criteria of paragraph (c)(1), which is for a new or reconstructed stationary RICE located at an area source. The permittee must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart JJJJ.
[40 C.F.R. § 63.6590(c)]

8.0. Source-Specific Requirements [Reciprocating Compressor Affected Facility (NSPS, Subpart OOOO) (CE-1, CE-2)]

8.1. Limitations and Standards

- 8.1.1. You must comply with the standards in paragraphs (a) through (d) of this section for each reciprocating compressor affected facility.

- a. You must replace the reciprocating compressor rod packing according to either paragraph (a)(1) or (2) of this section or you must comply with paragraph (a)(3) of this section.

1. Before the compressor has operated for 26,000 hours. The number of hours of operation must be continuously monitored beginning upon initial startup of your reciprocating compressor affected facility, or October 15, 2012, or the date of the most recent reciprocating compressor rod packing replacement, whichever is later.

2. Prior to 36 months from the date of the most recent rod packing replacement, or 36 months from the date of startup for a new reciprocating compressor for which the rod packing has not yet been replaced.

3. Collect the emissions from the rod packing using a rod packing emissions collection system which operates under negative pressure and route the rod packing emissions to a process through a closed vent system that meets the requirements of §60.5411(a).
- b. You must demonstrate initial compliance with standards that apply to reciprocating compressor affected facilities as required by § 60.5410.
- c. You must demonstrate continuous compliance with standards that apply to reciprocating compressor affected facilities as required by § 60.5415.
- d. You must perform the required notification, recordkeeping, and reporting as required by § 60.5420.

[40CFR§60.5385, Reciprocating Compressor Engines]

8.2. Initial Compliance Demonstration

- 8.2.1. You must determine initial compliance with the standards for each affected facility using the requirements in paragraph (c) of this section. The initial compliance period begins on October 15, 2012 or upon initial startup, whichever is later, and ends no later than one year after the initial startup date for your affected facility or no later than one year after October 15, 2012. The initial compliance period may be less than one full year.
 - c. To achieve initial compliance with the standards for each reciprocating compressor affected facility you must comply with paragraphs (c)(1) through (4) of this section.
 1. If complying with §60.5385(a)(1) or (2), during the initial compliance period, you must continuously monitor the number of hours of operation or track the number of months since the last rod packing replacement.
 2. If complying with §60.5385(a)(3), you must operate the rod packing emissions collection system under negative pressure and route emissions to a process through a closed vent system that meets the requirements of §60.5411(a).
 3. You must submit the initial annual report for your reciprocating compressor as required in § 60.5420(b).
 4. You must maintain the records as specified in § 60.5420(c)(3) for each reciprocating compressor affected facility.

[40CFR§60.5410]

8.3. Continuous Compliance Demonstration

- 8.3.1. For each reciprocating compressor affected facility complying with §60.5385(a)(1) or (2), you must demonstrate continuous compliance according to paragraphs (c)(1) through (3) of this section. For each reciprocating compressor affected facility complying with §60.5385(a)(3), you must demonstrate continuous compliance according to paragraph (c)(4) of this section.
 1. You must continuously monitor the number of hours of operation for each reciprocating compressor affected facility or track the number of months since initial startup, or October 15, 2012, or the date of the most recent reciprocating compressor rod packing replacement, whichever is later.

2. You must submit the annual report as required in § 60.5420(b) and maintain records as required in § 60.5420(c)(3).
3. You must replace the reciprocating compressor rod packing before the total number of hours of operation reaches 26,000 hours or the number of months since the most recent rod packing replacement reaches 36 months.
4. You must operate the rod packing emissions collection system under negative pressure and continuously comply with the closed vent requirements in §60.5411(a).
[40CFR§60.5415]

8.4. Notification, Recordkeeping and Reporting Requirements

- 8.4.1. You must submit the notifications according to paragraphs (a)(1) and (2) of this section if you own or operate one or more of the affected facilities specified in § 60.5365 that was constructed, modified, or reconstructed during the reporting period.
[40CFR§60.5420(a)]

- 8.4.2. Reporting requirements. You must submit annual reports containing the information specified in paragraphs (b)(1) and (4) of this section to the Administrator and performance test reports as specified in paragraph (b)(7) of this section. The initial annual report is due no later than 90 days after the end of the initial compliance period as determined according to § 60.5410. Subsequent annual reports are due no later than same date each year as the initial annual report. If you own or operate more than one affected facility, you may submit one report for multiple affected facilities provided the report contains all of the information required as specified in paragraphs (b)(1) and (4) of this section. Annual reports may coincide with title V reports as long as all the required elements of the annual report are included. You may arrange with the Administrator a common schedule on which reports required by this part may be submitted as long as the schedule does not extend the reporting period.

- (1) The general information specified in paragraphs (b)(1)(i) through (iv) of this section.

- (i) The company name and address of the affected facility.

- (ii) An identification of each affected facility being included in the annual report.

- (iii) Beginning and ending dates of the reporting period.

- (iv) A certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

- (4) For each reciprocating compressor affected facility, the information specified in paragraphs (b)(4)(i) through (ii) of this section.

- (i) The cumulative number of hours of operation or the number of months since initial startup, since October 15, 2012, or since the previous reciprocating compressor rod packing replacement, whichever is later.

- (ii) Records of deviations specified in paragraph (c)(3)(iii) of this section that occurred during the reporting period.

- (7)(i) Within 60 days after the date of completing each performance test (see § 60.8 of this part) as required by this subpart you must submit the results of the performance tests required by this subpart to EPA's WebFIRE database by using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx).

Performance test data must be submitted in the file format generated through use of EPA's Electronic Reporting Tool (ERT) (see <http://www.epa.gov/ttn/chief/ert/index.html>). Only data collected using test methods on the ERT Web site are subject to this requirement for submitting reports electronically to WebFIRE. Owners or operators who claim that some of the information being submitted for performance tests is confidential business information (CBI) must submit a complete ERT file including information claimed to be CBI on a compact disk or other commonly used electronic storage media (including, but not limited to, flash drives) to EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAQPS/CORE CBI Office, Attention: WebFIRE Administrator, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT file with the CBI omitted must be submitted to EPA via CDX as described earlier in this paragraph. At the discretion of the delegated authority, you must also submit these reports, including the confidential business information, to the delegated authority in the format specified by the delegated authority.

(ii) All reports required by this subpart not subject to the requirements in paragraph (a)(2)(i) of this section must be sent to the Administrator at the appropriate address listed in § 63.13 of this part. The Administrator or the delegated authority may request a report in any form suitable for the specific case (e.g., by commonly used electronic media such as Excel spreadsheet, on CD or hard copy). The Administrator retains the right to require submittal of reports subject to paragraph (a)(2)(i) and (ii) of this section in paper format.

[40CFR§60.5420]

8.4.3. Recordkeeping requirements. You must maintain the records identified as specified in § 60.7(f) and in paragraph (c)(1) of this section. All records must be maintained for at least 5 years.

(3) For each reciprocating compressors affected facility, you must maintain the records in paragraphs (c)(3)(i) through (iii) of this section.

(i) Records of the cumulative number of hours of operation or number of months since initial startup or October 15, 2012, or the previous replacement of the reciprocating compressor rod packing, whichever is later.

(ii) Records of the date and time of each reciprocating compressor rod packing replacement, or date of installation of a rod packing emissions collection system and closed vent system as specified in §60.5385(a)(3).

(iii) Records of deviations in cases where the reciprocating compressor was not operated in compliance with the requirements specified in § 60.5385.

[40CFR§60.5420]

9.0. Source-Specific Requirements [Heaters (HTR-1, HTR-2)]

9.1. Limitations and Standards

- 9.1.1. *Maximum Design Heat Input.* The maximum design heat input (MDHI) for the heaters shall be the following:

Emission Unit	MDHI (MMBTU/hr)
Line Heater (HTR-1)	0.25
Separator Heater (HTR-2)	1.0

- 9.1.2. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any fuel burning unit which is greater than ten (10) percent opacity based on a six minute block average. [45CSR§2-3.1.]

9.2. Monitoring Requirements

- 9.2.1. At such reasonable times as the Secretary may designate, the permittee shall conduct Method 9 emission observations for the purpose of demonstrating compliance with section 9.1.2 of this permit. Method 9 shall be conducted in accordance with 40 CFR 60 Appendix A.

9.3. Testing Requirements

- 9.3.1. Upon request by the Secretary, compliance with the visible emission requirements of section 9.1.2 of this permit shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 9 or by using measurements from continuous opacity monitoring systems approved by the Secretary. The Secretary may require the installation, calibration, maintenance and operation of continuous opacity monitoring systems and may establish policies for the evaluation of continuous opacity monitoring results and the determination of compliance with the visible emission requirements of section 9.1.2 of this permit. Continuous opacity monitors shall not be required on fuel burning units which employ wet scrubbing systems for emission control. [45CSR§2-3.2.]

9.4. Recordkeeping Requirements

- 9.4.1. The permittee shall maintain records of all monitoring data required by section 9.2.1 of this permit documenting the date and time of each visible emission check, the emission point or equipment/source identification number, the name or means of identification of the observer, the results of the check(s), whether the visible emissions are normal for the process, and, if applicable, all corrective measures taken or planned. The permittee shall also record the general weather conditions (i.e. sunny, approximately 80°F, 6 - 10 mph NE wind) during the visual emission check(s). Should a visible emission observation be required to be performed per the requirements specified in Method 9, the data records of each observation shall be maintained per the requirements of Method 9.

10.0. Source-Specific Requirements [Storage Vessels (T01-T06)]

10.1. Limitations and Standards

- 10.1.1. *Emission Units.* The maximum design capacity for each of the storage vessels (T01-T06) shall not exceed 210 bbl (8,820 gallons).
- 10.1.2. *Maximum Storage Vessel Throughput Limitation.* The permittee shall not exceed 210,000 gallons per year throughput for each condensate tank (T01-T05) and 58,800 gallons per year for the produced water tank (T06) without first obtaining a modification or administrative update. Compliance with the annual throughput limitation shall be determined using a twelve (12) month rolling total. A twelve (12) month rolling total shall mean the sum of the storage vessel throughput at any given time during the previous twelve (12) consecutive calendar months.
- 10.1.3. The permittee shall control the VOC and HAP emissions from the condensate tanks (T01-T05) and produced water tank (T06) with the vapor recovery unit (1E) and enclosed combustor (6E) backup. Vapors from the condensate storage tanks (T01-T05) and produced water tank (T06) shall only be vented to the enclosed combustor (6E) as a backup only.
- 10.1.4. The permittee shall comply with the following vapor recovery unit (1E) requirements:
- i. The permittee shall comply with the closed vent system requirements in Section 10.1.7 of this permit.
 - ii. The permittee may claim a capture and control efficiency of 95% (*which accounts for 5% expected downtime*).
 - iii. The permittee may claim a capture and control efficiency of 98% if the VRU has a backup flare (enclosed combustion device) that meet the requirements of section 10.1.5 of this general permit.
- 10.1.5. The permittee shall comply with the following enclosed combustion device (6E) requirements when 6E is serving as a backup to 1E:
- i. Vapors that are being controlled by the enclosed combustion device shall be routed to the enclosed combustion device at all times.
 - ii. The enclosed combustion device shall be operated with a flame present at all times, as determined by the methods specified in sections 10.2.3 and 10.2.5 of this permit.
 - iii. Enclosed combustion devices shall be designed for and operated with no visible emissions as determined by the methods specified in section 10.4.1 of this permit except for either (a) or (b):
 - a. periods not to exceed a total of one minute during any 15 minute period, determined on a monthly basis; or
 - b. periods not to exceed a total of two (2) minutes during any hour, determined on a quarterly basis if the enclosed combustion device installed was a model tested under § 60.5413(d) which meets the criteria in § 60.5413(d)(11).
 - iv. Enclosed combustion device (EC-1) shall be operated at all times when emissions are vented to it.
 - v. To ensure compliance with 10.1.5(iv) above, the permittee shall monitor in accordance with section 10.2.3 of this permit.

- vi. The permittee shall operate and maintain the enclosed combustion device according to the manufacturer's specifications for operating and maintenance requirements to maintain the guaranteed control efficiency listed in the permit.

The permittee may claim a capture and control efficiency of 98% for those units meeting the requirements of 3.i-vi.

- 4. *Closed Vent System.* The permittee shall comply with the closed vent system requirements in section 10.1.6.
- 5. *Maximum Design Heat Input.* The total maximum design heat input for the enclosed combustion device (EC-1) shall not exceed a Maximum Design Heat Input of 10 MMBTU/hr.
- 6. The enclosed combustion device (EC-1) is subject to the applicable requirements specified in 45CSR6.

10.1.6. Cover Requirements. The permittee shall comply with the cover requirements in this section.

- 1. The cover and all openings on the cover (e.g., access hatches, sampling ports, pressure relief valves and gauge wells) shall form a continuous impermeable barrier over the entire surface area of the liquid in the storage vessel.
- 2. Each cover opening shall be secured in a closed, sealed position (e.g., covered by a gasketed lid or cap) whenever material is in the unit on which the cover is installed except during those times when it is necessary to use an opening as follows:
 - (i) To add material to, or remove material from the unit (this includes openings necessary to equalize or balance the internal pressure of the unit following changes in the level of the material in the unit);
 - (ii) To inspect or sample the material in the unit;
 - (iii) To inspect, maintain, repair, or replace equipment located inside the unit; or
 - (iv) To vent liquids, gases, or fumes from the unit through a closed-vent system designed and operated in accordance with the requirements of this permit to a control device or to a process.
- 3. Each storage vessel thief hatch shall be weighted and properly seated. You must select gasket material for the hatch based on composition of the fluid in the storage vessel and weather conditions.
[45CSR§13-5.11.]

10.1.7. Closed Vent Systems. The permittee shall comply with the closed vent system requirements in this section.

- 1. The permittee shall perform an initial LDAR evaluation within thirty (30) days of start-up and follow the procedures in section 4.1.6 for ongoing compliance.
- 2. You must design and operate a closed vent system with no detectable emissions, as determined using audio-visual-olfactory (AVO) inspections, USEPA 40CFR60 Method 21, USEPA alternative work practice to detect leaks from equipment using optical gas imaging (OGI) camera (e.g., FLIR camera), or some combination thereof. AVO inspections shall include, but not limited to, defects as visible cracks, holes, or gaps in piping; loose connections; liquid leaks; or broken or missing caps or other closure devices. If permittee

uses USEPA Method 21, then no detectable emissions is defined as less than 500 ppm in accordance with Method 21. If permittee uses an OGI camera, then no detectable emissions is defined as no visible leaks detected in accordance with USEPA alternative OGI work practices.

3. You must meet the requirements specified in (1) and (2) of this section if the closed vent system contains one or more bypass devices that could be used to divert all or a portion of the gases, vapors, or fumes from entering the control device or to a process.
 - i. Except as provided in paragraph (2) of this section, you must comply with either paragraph (A) or (B) of this section for each bypass device.
 - A. You must properly install, calibrate, maintain, and operate a flow indicator at the inlet to the bypass device that could divert the stream away from the control device or process to the atmosphere that sounds an alarm, or initiates notification via remote alarm to the nearest field office, when the bypass device is open such that the stream is being, or could be, diverted away from the control device or process to the atmosphere.
 - B. You must secure the bypass device valve installed at the inlet to the bypass device in the non-diverting position using a car-seal or a lock-and-key type configuration.
 - ii. Low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, and safety devices are not subject to the requirements of paragraph (i) of this section.

[45CSR§13-5.11.]

10.1.8. *Emissions determination.* The permittee shall determine the VOC emissions for each storage vessel (as defined in § 60.5430) to determine affected facility status (commenced construction, modification or reconstruction after August 23, 2011) in accordance with the *emissions determination* required in 40CFR60 Subpart OOOO.

10.1.9. *Site specific sample.*

1. The permittee shall use a site specific sample to determine potential emissions. The permittee shall comply with the following:
 - i. The site specific sample shall be taken within thirty (30) days of startup.
 - ii. The type and location of the sample shall be appropriate for the calculation methodology or model (e.g. ProMax, E&P Tanks, HYSYS) being used to calculate the emissions. The sample location shall be equipped with appropriate sampling access.
 - iii. If the VOC potential emissions are higher than the emission limits in section 10.1.9 of this permit DAQ shall be notified in accordance with section 10.5.1 of this permit.
 - a. The permittee shall re-evaluate the VOC potential emissions based on the site specific sample within 90 days of receiving the analysis of the site specific sample determined per section 10.1.7 of this permit.

- 10.1.10. *Regulated Pollutant Limitation.* The permittee shall not exceed the following emission limits for the enclosed combustion device (EC-1) controlling storage tanks (T01-T06) without obtaining an administrative update or modification.

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
Volatile Organic Compounds	3.40	0.63
Nitrogen Oxides	0.30	0.06
Carbon Monoxide	1.65	0.32

10.2. Monitoring Requirements

- 10.2.1. The permittee shall monitor and maintain quarterly records of the temperature and pressure upstream of any storage vessel (T01-T06) at the appropriate separation unit based on the calculation methodology or model being used by the permittee to calculate their VOC flash emissions. Pressure monitoring shall not be required if the pressure setting is greater than the pressure safety valve for the storage vessel(s).
- 10.2.2. The permittee shall perform the following for the storage vessels (T01-T06):
1. Inspect and maintain records of the separator liquid level that opens the dump valve on an as needed basis and annually (at a minimum).
 2. Inspect and maintain records of the separator dump valves operation per manufacturer recommendations or annually (at a minimum).
- 10.2.3. To demonstrate compliance with the pilot flame requirements of section 10.1.5 of this permit, the presence of a pilot flame shall be continuously monitored using a thermocouple or any other equivalent device to detect the presence of a flame when emissions are vented to it. The pilot shall be equipped such that it sounds an alarm, or initiates notification via remote alarm to the nearest field office, when the pilot light is out.
- 10.2.4. To demonstrate compliance with the closed vent system requirements of section 10.1.7 of this permit, the permittee shall:
- a. *Initial requirements.* Conduct an initial AVO inspection or those methods listed in section 4.1.6 of this permit for defects that could result in air emissions within thirty (30) days of start-up. Defects include, but are not limited to, visible cracks, holes, or gaps in piping; loose connections; liquid leaks; or broken or missing caps or other closure devices.
 - i. The initial inspection shall include the bypass inspection, conducted according to paragraph (c) of this section.
 - ii. In the event that a leak or defect is detected, you must repair the leak or defect as soon as practicable. Grease or another applicable substance must be applied to deteriorating or cracked gaskets to improve the seal while awaiting repair.
 - iii. Delay of repair of a closed vent system for which leaks or defects have been detected is allowed if the repair is technically infeasible without a shutdown, or if you determine that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. You must complete repair of such equipment by the end of the next shutdown.

- b. *Continuous requirements.* The permittee shall monitor and maintain quarterly records for each component that was inspected for fugitive escape of regulated air pollutants. Each component shall operate with no detectable emissions, as determined using AVO inspections, USEPA 40CFR60 Method 21, USEPA alternative work practice to detect leaks from equipment using optical gas imaging (OGI) camera (ex. FLIR camera), or some combination thereof. AVO inspections shall include, but not limited to, defects as visible cracks, holes, or gaps in piping; loose connections; liquid leaks; or broken or missing caps or other closure devices. If permittee uses USEPA Method 21, then no detectable emissions is defined as less than 500 ppm in accordance with Method 21. If permittee uses an OGI camera, then no detectable emissions is defined as no visible leaks detected in accordance with USEPA alternative OGI work practices.

If any leak is detected, the permittee shall repair the leak as soon as possible. The first attempt at repair must be made within five (5) days of discovering the leak, and the final repair must be made within fifteen (15) days of discovering the leak. The permittee shall record each leak detected and the associated repair. The leak will not be considered repaired until the same monitoring method that detected the leak determines the leak is repaired.

The permittee shall maintain records of all quarterly monitoring for fugitive escape of regulated air pollutants.

- c. *Bypass inspection.* Visually inspect the bypass valve during the initial inspection for the presence of the car seal or lock-and-key type configuration to verify that the valve is maintained in the non-diverting position to ensure that the vent stream is not diverted through the bypass device. If an alternative method is used, conduct the inspection of the bypass as described in the operating procedures.
- d. *Unsafe to inspect requirements.* You may designate any parts of the closed vent system as unsafe to inspect if the requirements in paragraphs (i) and (ii) of this section are met. Unsafe to inspect parts are exempt from the inspection requirements of paragraphs (a) and (b) of this section.
- i. You determine that the equipment is unsafe to inspect because inspecting personnel would be exposed to an imminent or potential danger as a consequence of complying with the requirements.
 - ii. You have a written plan that requires inspection of the equipment as frequently as practicable during safe-to-inspect times.

[45CSR§13-5.11.]

- 10.2.5. To demonstrate compliance with the pilot flame requirements of section 10.1.5 of this permit, the permittee shall follow (i) and (ii).
- i. The presence of a pilot flame shall be continuously monitored using a thermocouple or any other equivalent device to detect the presence of a flame when emissions are vented to it. The pilot shall be equipped such that it sounds an alarm, or initiates notification via remote alarm to the nearest field office, when the pilot light is out.
 - ii. For any absence of pilot flame, or other indication of smoking or improper equipment operation, you must ensure the equipment is returned to proper operation as soon as practicable after the event occurs. At a minimum, you must: (1) Check the air vent for obstruction. If an obstruction is observed, you must clear the obstruction as soon as practicable. (2) Check for liquid reaching the combustor.
 - iii. The permittee is exempt from the pilot flame requirements of permit condition 10.2.5.i and 10.2.5.ii if the permittee installed an enclosed combustion device model that was tested under

§ 60.5413(d) which meets the criteria in § 60.5413(d)(11).

10.3. Recordkeeping Requirements

- 10.3.1. To demonstrate compliance with section 10.1.2 of this permit, the permittee shall maintain a record of the aggregate throughput for the storage tanks (T01-T06) on a monthly and rolling twelve (12) month total. Said records shall be maintained in accordance with section 3.5.1 of this permit.
- 10.3.2. To demonstrate compliance with section 10.1.8 of this permit, the permittee shall maintain records of the determination of the VOC emission rate per storage vessel, including identification of the model or calculation methodology used to calculate the VOC emission rate.
- 10.3.3. To demonstrate compliance with section 10.1.9 of this permit, the permittee shall maintain records of the type of sample taken, the location of the sample within the process, the temperature at the location and time where the sample was taken, the pressure at the location and time that the sample was taken, the analysis of the sample, and the resulting emissions calculations using the site specific sample.
- 10.3.4. For the purpose of demonstrating compliance with the continuous pilot flame requirements in section 10.1.5 of this permit, the permittee shall maintain records of the times and duration of all periods when the pilot flame was not present and vapors were vented to the device.
 - i. If the permittee is demonstrating compliance to 10.2.5 of this permit with visual inspections, the permittee shall maintain records of the inspections.
 - ii. If the permittee is demonstrating compliance to 10.2.5 of this permit with an enclosed combustion device model that was tested under the conditions of § 60.5413(d), a record shall be maintained of the performance test results.
- 10.3.5. For the purpose of demonstrating compliance with the visible emissions and opacity requirements, the permittee shall maintain records of the visible emission opacity tests and checks. The permittee shall maintain records of all monitoring data required by section 10.4.1 of this permit documenting the date and time of each visible emission check, the emission point or equipment/ source identification number, the name or means of identification of the observer, the results of the check(s), whether the visible emissions are normal for the process, and, if applicable, all corrective measures taken or planned. The permittee shall also record the general weather conditions (i.e. sunny, approximately 80°F, 6-10 mph NE wind) during the visual emission check(s). Should a visible emission observation be required to be performed per the requirements specified in Method 9, the data records of each observation shall be maintained per the requirements of Method 9. For an emission unit out of service during the evaluation, the record of observation may note "out of service" (O/S) or equivalent.
- 10.3.6. To demonstrate compliance with section 10.1.5.vi of this permit, the permittee shall maintain records of the manufacturer's specifications for operating and maintenance requirements to maintain the control efficiency.
- 10.3.7. To demonstrate compliance with the closed vent monitoring requirements in section 10.2.4 of this permit, records shall be maintained of:
 - i. The initial compliance requirements;
 - ii. Each AVO inspection, Method 21, infrared camera or some combination thereof conducted to demonstrate continuous compliance, including records of any repairs that were made as a result of the inspection;

iii. If you are subject to the bypass requirements, the following records shall also be maintained:

- (a) Each inspection or each time the key is checked out or a record of each time the alarm is sounded;
- (b) Each occurrence that the control device was bypassed. If the device was bypassed, the records shall include the date, time, and duration of the event and shall provide the reason that the event occurred. The record shall also include the estimate of emissions that were released to the environment as a result of the bypass.

iv. Any part of the system that has been designated as “unsafe to inspect” in accordance with 10.2.4(d).

[45CSR§13-5.11.]

10.3.8. The permittee shall maintain records of any testing that is conducted according to section 10.3 of this permit.

10.3.9. All records required under Section 10.3 shall be maintained on site or in a readily accessible off-site location maintained by the permittee for a period of five (5) years. Said records shall be readily available to the Director of the DAQ or his/her duly authorized representative for expeditious inspection and review. Any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official.

10.3.10. To demonstrate compliance with section 10.1.5.5 of this permit, the permittee shall record the volume of gas flared on a monthly basis.

10.4. Testing Requirements

10.4.1. To demonstrate compliance with the visible emissions requirements of section 10.1.5 of this permit, the permittee shall conduct visible emission checks and/or opacity monitoring and recordkeeping for all emission sources subject to an opacity limit.

i. The visible emission check shall determine the presence or absence of visible emissions. The observations shall be conducted according to Section 11 of EPA Method 22. At a minimum, the observer must be trained and knowledgeable regarding the effects of background contrast, ambient lighting, observer position relative to lighting, wind, and the presence of uncombined water (condensing water vapor) on the visibility of emissions. This training may be obtained from written materials found in the References 1 and 2 from 40CFR Part 60, Appendix A, Method 22 or from the lecture portion of the 40CFR Part 60, Appendix A, Method 9 certification course. The observation period shall be:

- a. a minimum of 15 minutes if demonstrating compliance with 10.1.5(iii)(a); or
- b. a minimum of 1 hour if demonstrating compliance with 10.1.5 (iii)(b)

ii. The visible emission check shall be conducted initially within 180 days of start-up to demonstrate compliance while vapors are being sent to the control device.

iii. If during this visible emission check or at any other time visible emissions are observed, compliance with section 10.1.5.6 of this permit shall be determined by conducting opacity tests in accordance with Method 9 or 40 CFR 60, Appendix A.

10.4.2. *Enclosed combustion device.* At such reasonable times as the Secretary may designate, the operator of any incinerator shall be required to conduct or have conducted stack tests to determine the particulate matter loading, by using 40 CFR Part 60, Appendix A, Method 5, and

volatile organic compound loading, by using Methods 18 and 25A of 40 CFR Part 60, Appendix A, Method 320 of 40 CFR Part 63, Appendix A, or ASTM D 6348-03 or other equivalent U.S. EPA approved method approved by the Secretary, in exhaust gases. Such tests shall be conducted in such manner as the Secretary may specify and be filed on forms and in a manner acceptable to the Secretary. The Secretary may, at the Secretary's option, witness or conduct such stack tests. Should the Secretary exercise his or her option to conduct such tests, the operator will provide all the necessary sampling connections and sampling ports to be located in such manner as the Secretary may require, power for test equipment and the required safety equipment such as scaffolding, railings and ladders to comply with generally accepted good safety practices. The Secretary may conduct such other tests as the Secretary may deem necessary to evaluate air pollution emissions other than those noted above. [45CSR6 §§7.1 and 7.2]

10.5. Notification and Reporting Requirements

- 10.5.1. The permittee shall notify the Director of the DAQ in writing for any instance when the potential emissions determined with a site specific sample in accordance with section 10.1.8 of this permit were greater than the potential emissions provided in the R13-3293 application. The notification shall include whether or not this change in emissions affects applicability determination to NSPS, Subpart OOOO for any storage vessel. The notification to the Director shall be provided no later than 30 days from the date of discovery of the increased emissions.
- 10.5.2. Any deviation of the allowable visible emission requirement for any emission source discovered during observation using 40CFR Part 60, Appendix A, Method 9 per section 10.1.5(iii) of this permit must be reported in writing to the Director of the DAQ as soon as practicable, but within ten (10) calendar days, of the occurrence and shall include, at a minimum, the following information: the results of the visible determination of opacity of emissions, the cause or suspected cause of the violation(s), and any corrective measures taken or planned.
- 10.5.3. Any bypass event of the control device must be reported in writing to the Director of the DAQ as soon as practicable, but within ten (10) calendar days, of the occurrence and shall include, at a minimum, the following information: the date of the bypass, the estimate of VOC emissions released to the atmosphere as a result of the bypass, the cause or suspected cause of the bypass, and any corrective measures taken or planned.
- 10.5.4. Any time the air pollution control devices are not operating when emissions are vented to it, shall be reported in writing to the Director of the DAQ as soon as practicable, but within ten (10) calendar days of the discovery.

11.0. Source-Specific Requirements [Truck Loading (TL-1, TL-2)]

11.1. Limitations and Standards

- 11.1.1. *Maximum Truck Loading Throughput Limitation.* The permittee shall not exceed the following maximum throughput limits without obtaining a modification or administrative update. Compliance with the Maximum Annual Throughput Limitation shall be determined using a twelve (12) month rolling total. A twelve (12) month rolling total shall mean the sum of the tanker truck product throughput at any given time during the previous twelve (12) consecutive calendar months.

Emission Unit ID#	Material Loaded	Maximum Annual Throughput (gal/yr)
TL-1	Condensate	1,050,000
TL-2	Produced Water	58,800

- 11.1.2. The Condensate and Produced Water Loading (TL-1, TL-2) shall be operated in accordance with the plans and specifications filed in Permit Application R13-3293. The Condensate Truck Loading (TL-1) system will employ a vapor return which shall be designed to achieve a minimum guaranteed capture efficiency of 98.7% for VOC emissions. All trucks loading at TL-1 are required to be certified as meeting the NSPS Annual Leak Test. Compliance with this requirement shall be demonstrated by keeping records of this NSPS Annual Leak Test certification for every truck loaded.
- 11.1.3. The permittee shall control the VOC and HAP emissions from the Condensate Truck Loading (TL-1) with the enclosed combustor (6E). The permittee shall follow all enclosed combustor requirements listed in Section 10 of this permit.

11.2. Monitoring Requirements

- 1.2.1. The permittee shall monitor the condensate and produced water throughput on a daily basis.

11.3. Recordkeeping Requirements

- 11.3.1. For the purpose of demonstrating compliance with sections 11.11 and 11.2.1, the permittee shall maintain records of the volumes of condensate and produced water loaded from trucks on a daily basis.
- 11.3.2. For the purpose of demonstrating compliance with section 11.1.1, the permittee shall maintain records of the NSPS Annual Leak Tests of all trucks loaded with condensate and produced water at the facility.
- 11.3.3. All records required under Section 11.3 shall be maintained on site or in a readily accessible off-site location maintained by the permittee for a period of five (5) years. Said records shall be readily available to the Director of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. Any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official.

12.0. Source-Specific Requirements [Pneumatic Controllers Affected Facility (NSPS, Subpart OOOO)]

12.1. Limitations and Standards

- 12.1.1. Each pneumatic controller affected facility shall comply with the applicable requirements specified in 40 CFR Part 60, Subpart OOOO.

DRAFT

CERTIFICATION OF DATA ACCURACY

I, the undersigned, hereby certify that, based on information and belief formed after reasonable inquiry, all information contained in the attached _____, representing the period beginning _____ and ending _____, and any supporting documents appended hereto, is true, accurate, and complete.

Signature¹ _____
(please use blue ink) Responsible Official or Authorized Representative Date

Name & Title _____
(please print or type) Name Title

Telephone No. _____ Fax No. _____

- ¹ This form shall be signed by a "Responsible Official." "Responsible Official" means one of the following:
- a. For a corporation: The president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person 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 a gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars), or
 - (ii) the delegation of authority to such representative is approved in advance by the Director;
 - b. For a partnership or sole proprietorship: a general partner or the proprietor, respectively;
 - c. For a municipality, State, Federal, or other public entity: either a principal executive officer or ranking elected official. For the purposes of this part, 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 (e.g., a Regional Administrator of U.S. EPA); or
 - d. The designated representative delegated with such authority and approved in advance by the Director.

Williams, Jerry

From: Roger Dhonau <RDhonau@se-env.com>
Sent: Tuesday, March 01, 2016 11:37 AM
To: Williams, Jerry
Subject: Icon Midstream - Big Moses
Attachments: Tank Emissions Summary.pdf; Attachment J - Emissions Data .pdf; Attachment I - Emissions Units Table.pdf; Application Form.pdf; BIG MOSES FDb01.pdf; EmissionCalcs Summary Sheet 3-1-16.pdf

Jerry,

It was brought to my attention yesterday that there is a minor change in the way the Big Moses facility will be operated. Rather than discharging directly to atmosphere, vapors from the single produced water tank will be managed in the same manner as vapors from the condensate tanks. This will result in a slight reduction in overall facility emissions. In order for the permit to correctly reflect this change, we have prepared several replacement sheets for the application (including a revised Process Flow Diagram) that reflect this minor change. Please note that by controlling these emissions, there is a slight decrease in VOC emissions (see attached replacement sheets). The revised aspects are highlighted in yellow to make tracking the changes easier.

In your review, please note that the increase in gas going to flare is below the significant digits used in the calculations, thus, I show no change in loading to the combustor. As you will see, the potential amount of gas routed to the VRU (and combustor when the VRU is down) increased from 692.89 tpy to 693.20 tpy...not a whole lot.

Separately, it was also discovered that the address given for Icon Midstream was the local field office and not the corporate office. Accordingly, we have corrected the first page of the application to reflect the proper address.

If you have any questions on what is provided herein or any other aspect of the application, please feel free to contact me at your convenience. I am sorry I was not aware of this sooner.

Roger

Roger A. Dhonau, PE, QEP
SE Technologies, LLC



TECHNOLOGIES
98 Vanadium Rd., Bldg. D
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412/221-1100, ext. 1628

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ID # 095-00067
Reg R13-3293
Company Icon MIDSTREAM
Facility BIG MOSES Initials JW

NON-CONFIDENTIAL

Icon Midstream Pipeline, LLC
Big Moses Liquids Management Facility
Tank Emissions Calculations

Icon Midstream operates five 210 BBL atmospheric pressure tanks that receives condensate that has been received via pipeline and separated from entrained water and NGL. Condensate is accumulated in these tanks, pending truck transportation to a fractionation facility. A maximum of 25,000 BBL will pass through these tanks per year. In addition, Icon also operated a single 210 BBL tank where produced water is accumulated prior to truck transportation to a re-use center or a disposal facility. A maximum of 1400 BBL will pass through this tank per year. The following summarizes potential emissions from these tanks.

Emissions from the condensate tanks will be a combination of flash emissions (as the pressure is reduced on the liquid to atmospheric) plus working and breathing losses while the condensate is in the tanks. Using data from a well pad that will be routing condensate to this facility, flash and working/breathing losses were calculated (following this summary). In a similar manner, flash emissions from the water tank were determined using actual data from a produced water tank from a well pad similar to those routing produced water to the Big Moses facility. Working and breathing losses for the water tank are considered negligible.

Emissions from the condensate tanks and produced water tank are routed to a vapor recovery unit via a hard pipe system. A capture efficiency of 95% is claimed. It is important to note that when the VRU is down for maintenance or repair, the tank vapors are routed to a combustor with a 98% capture and control efficiency.

	Flash Emissions (tpy)	W&B Emissions (tpy)	Uncontrolled Total (tpy)	Un-captured Total (tpy)
Condensate	483.56 VOCs 15.8 HAPs 14.5 n-Hexane	3.74 VOCs 0.12 HAPs 0.11 n-Hexane	487.30 VOCs 15.9 HAPs 14.6 n-hexane	24.37 VOCs 0.80 HAPs 0.73 n-Hexane
Water	0.16 VOC 0.01 HAPs <0.01 n-Hexane	<0.01 VOCs <0.01 HAPs <0.01 n-Hexane	0.16 VOCs 0.01 HAPs <0.01 n-Hexane	0.01 VOCs < 0.01 HAPs <0.01 n-Hexane
Total	483.72 VOCs 5.00 HAPs 1.45 n-Hexane	3.74 VOCs 0.12 HAPs 0.11 n-Hexane	488.76VOCs 15.9 HAPs 14.6 n-Hexane	24.38 VOCs 0.80 HAPs 0.73 n-Hexane

It is assumed that emissions will generally be continuous and consistent over the year. However, in order to account for day to day variances, the requested hourly maximum emissions are 25% higher than a straight extrapolation from the annual emission rates.

Loading to Enclosed Combustor

As noted above, Flash, working and Breathing losses from the condensate tanks are normally controlled by a VRU. When that unit is down for maintenance or repairs, the gas flow is routed to an enclosed combustor (EC-1). As noted in the following worksheets, there are 689.14 tpy of Flash Gas and 3.74 tpy of Working and Breathing potential emissions from the condensate tanks plus 0.31 tpy of flash gas from the produced water tank. This is equivalent to 158.3 lb/hr. As it is the largest component of this gas stream, the flash gas characteristics are assumed to be representative of the entire gas stream. Thus, this gas will have a density of 0.112 lb/scf and a heat content of 2282 BTU/scf. Potential loading to the combustor is then 1413.4 scf/hr (33,900 scfd) and 3.22 MMBTU/Hr.

For permitting purposes, it is assumed that the VRU will be unavailable for 500 hours per year. Thus annual loading to the combustor will be 706,250 scf [$33,900 \text{ scf/day} \times 500/24$] or 1,612 MMBTU/Yr.

The stream going to the combustor when the VRU is down has a composition that is 70.3% VOCs and 2.1% n-Hexane. Thus, with a 98% destruction efficiency and maximum loading of 158.2 lb/hr, potential VOC emissions would be 2.22 lb/hr [$158.2 \times 0.703 \times 0.02$]. Potential n-Hexane emissions would be 0.067 lb/hr [$158.2 \times 0.021 \times 0.02$].

ATTACHMENT J

**Emission Points Data Summary Sheet
New Equipment Only**

Table 1: Emissions Data

Emission Point ID No. (Must match Emission Units Table & Plot Plan)	Emission Point Type ¹	Emission Unit Vented Through This Point (Must match Emission Units Table & Plot Plan)		Air Pollution Control Device (Must match Emission Units Table & Plot Plan)	Vent Time for Emission Unit (chemical processes only)		All Regulated Pollutants - Chemical Name/CAS ³ (Speciate VOCs & HAPS)	Maximum Potential Uncontrolled Emissions ⁴		Maximum Potential Controlled Emissions ⁵		Emission Form or Phase (At exit conditions, Solid, Liquid or Gas/Vapor)	Est. Method Used ⁶	Emission Concentration ⁷ (ppmv or mg/m ³)	
		ID No.	Source		ID No.	Device Type		Short Term ²	Max (hr/yr)	lb/hr	ton/yr				lb/hr
1E	Upward Vertical Stack	CE-1	Flash Comp. Driver Engine	1C	NSCR	C	8760	NO _x	1.33	5.81	0.21	0.91	GAS	EE	
								CO	0.53	2.31	0.41	1.81	GAS	EE	
								VOC	0.01	0.06	0.01	0.06	GAS	EE	
								SO ₂	<0.01	<0.01	<0.01	<0.01	GAS	EE	
								PM/PM10	<0.01	<0.01	<0.01	<0.01	Solid	EE	
								Formaldehyde	0.01	0.04	0.01	0.04	Gas	EE	
2E	Upward Vertical Stack	CE-2	VRU Driven Engine	2C	NSCR	C	8760	CO _{2e}	54	238	54	238	Gas	EE	
								NO _x	3.88	14.81	0.26	1.14	GAS	EE	
								CO	2.24	9.80	0.52	2.28	GAS	EE	
								VOC	0.03	0.13	0.03	0.13	GAS	EE	
								SO ₂	<0.01	<0.01	<0.01	<0.01	GAS	EE	
								PM/PM10	0.05	0.22	0.05	0.22	Solid	EE	
Formaldehyde	0.02	0.09	0.02	0.09	Gas	EE									
								124	542	124	542	Gas	EE		

Emission Point ID No. (Must match Emission Units Table & Plot Plan)	Emission Point Type ¹	Emission Unit Vented Through This Point (Must match Emission Units Table & Plot Plan)		Air Pollution Control Device (Must match Emission Units Table & Plot Plan)		Vent Time for Emission Unit (chemical processes only)		All Regulated Pollutants - Chemical Name/CAS ³ (Speciate VOCs & HAPS)	Maximum Potential Uncontrolled Emissions ⁴		Maximum Potential Controlled Emissions ⁵		Emission Form or Phase (At exit conditions, Solid, Liquid or Gas/lapor)	Est. Method Used ⁶	Emission Concentration ⁷ (ppmv or mg/m ⁴)		
		ID No.	Source	ID No.	Device Type	Short Term ²	Max (hr/yr)		lb/hr	ton/yr	lb/hr	ton/yr					
3E	Upward Vertical Vent	HTR-1	Line Heater	None	C	8760	NO _x	0.02	0.09	0.02	0.09	0.02	0.09	GAS	EE		
							CO	0.02	0.07	0.02	0.07	0.02	0.07	GAS	EE		
							VOC	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	GAS	EE	
							PM/PM10	<0.01	0.01	<0.01	0.01	<0.01	0.01	0.01	Solid	EE	
							Benzene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	Gas	EE	
							Formaldehyde	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	Gas	EE	
							CO2e	25	107	25	107	25	107	107	Gas	EE	
4E	Upward Vertical Vent	HTR-2	Separator Heater	None	C	8760	NO _x	0.08	0.36	0.08	0.36	0.08	0.36	GAS	EE		
							CO	0.07	0.30	0.07	0.30	0.07	0.30	GAS	EE		
							VOC	<0.01	0.02	<0.01	0.02	<0.01	0.02	0.02	GAS	EE	
							PM/PM10	0.01	0.03	0.01	0.03	0.01	0.03	0.03	Solid	EE	
							Benzene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	Gas	EE	
							Formaldehyde	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	Gas	EE	
							CO2e	98	430	98	430	98	430	430	Gas	EE	

Emission Point ID No. (Must match Emission Units Table & Plot Plan)	Emission Point Type ¹	Emission Unit Vented Through This Point (Must match Emission Units Table & Plot Plan)		Air Pollution Control Device (Must match Emission Units Table & Plot Plan)		Vent Time for Emission Unit (chemical processes only)		All Regulated Pollutants - Chemical Name/CAS ³ (Speciate VOCs & HAPS)	Maximum Potential Uncontrolled Emissions ⁴		Maximum Potential Controlled Emissions ⁵		Emission Form or Phase (At exit conditions, Solid, Liquid or Gas/Vapor)	Est. Method Used ⁶	Emission Concentration ⁷ (ppmv or mg/m ³)											
		ID No.	Source	ID No.	Device Type	Short Term ²	Max (hr/yr)		lb/hr	ton/yr	lb/hr	ton/yr														
5E	Upward Vertical Vent	T01-T05	Cond. Tanks + Water Tank Un-captured emissions	VRU-1	Vapor Recovery Unit	C	8760	NO _x					GAS	EE												
6E	Upward Vertical Vent	TL-1	Cond. Tanks + Truck Loading	EC-1	S	500	NO _x							GAS	EE											

Emission Point ID No. (Must match Emission Units Table & Plot Plan)	Emission Point Type	Emission Unit Vented Through This Point (Must match Emission Units Table & Plot Plan)		Air Pollution Control Device (Must match Emission Units Table & Plot Plan)		Vent Time for Emission Unit (chemical processes only)		All Regulated Pollutants - Chemical Name/CAS ³ (Speciate VOC's & HAPS)	Maximum Potential Uncontrolled Emissions ⁴		Maximum Potential Controlled Emissions ⁵		Emission Form or Phase (At exit conditions, Solid, Liquid or Gas/Vapor)	Est. Method Used ⁶	Emission Concentration ⁷ (ppmv or mg/m ³)	
		ID No.	Source	ID No.	Device Type	Short Term ²	Max (hr/yr)		lb/hr	ton/yr	lb/hr	ton/yr				
5E	Upward Vertical Vent	T06	Produced Water Tank	VRU-1				NO _x					GAS	EE		
								CO						GAS	EE	
								VOC	0.16			0.01		GAS	EE	
								PM/PM10						Solid	EE	
								Benzene	<0.01			<0.01		Gas	EE	
								n-Hexane	<0.01			<0.01		Gas	EE	
								CO2e						Gas	EE	
8E	Upward Vertical Vent	TL-2	Produced Water Truck Loading		None			NO _x					GAS	EE		
								CO						GAS	EE	
								VOC	0.13	<0.01		0.13	0.13	GAS	EE	
								PM/PM10						GAS	EE	
								Benzene						Solid	EE	
								Formaldehyde						Gas	EE	
								CO2e						Gas	EE	

The EMISSION POINTS DATA SUMMARY SHEET provides a summation of emissions by emission unit. Note that un-captured process emission unit emissions are not typically considered to be fugitive and must be accounted for on the appropriate EMISSIONS UNIT DATA SHEET and on the EMISSION POINTS DATA SUMMARY SHEET. Please note that total emissions from the source are equal to all vented emissions, all fugitive emissions, plus all other emissions (e.g., un-captured emissions). Please complete the FUGITIVE EMISSIONS DATA SUMMARY SHEET for fugitive emission activities.

1. Please add descriptors such as upward vertical stack, downward vertical stack, horizontal stack, relief vent, rain cap, etc.
2. Indicate by "C" if venting is continuous. Otherwise, specify the average short-term venting rate with units, for intermittent venting (i.e., 15 min/hr). Indicate as many rates as needed to clarify frequency of venting (e.g., 5 min/day, 2 days/wk).
3. List all regulated air pollutants. Speciate VOCs, including all HAPs. Follow chemical name with Chemical Abstracts Service (CAS) number. **LIST** Acids, CO, CS₂, VOCs, H₂S, Inorganics, Lead, Organics, O₃, NO, NO₂, SO₂, SO₃, etc. **DO NOT LIST** CO₂, H₂, H₂O, N₂, O₂, and Noble Gases.
4. Give maximum potential emission rate with no control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g., 5 lb VOC/20 minute batch).
5. Give maximum potential emission rate with proposed control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g., 5 lb VOC/20 minute batch).
6. Indicate method used to determine emission rate as follows:
 MB = material balance; ST = stack test (give date of test); EE = engineering estimate; O = other (specify).

ATTACHMENT J

**Emission Points Data Summary Sheet
New Equipment**

Table 2: Release Parameter Data

Emission Point ID No. <i>(Must match Emission Units Table)</i>	Inner Diameter (ft.)	Temp. (°F)	Exit Gas			Emission Point Elevation (ft)		UTM Coordinates (km)	
			Volumetric Flow ¹ (acfm) at operating conditions	Velocity (fps)	Ground Level (Height above mean sea level)	Stack Height ² (Release height of emissions above ground level)	Northing	Easting	
1E	0.5	1050	310	45	750	8			
2E	0.5	1127	528	45	750	8			
3E	0.25	1100	Est. 200	1	750	8			
4E	0.33	1100	Est. 300	<1	750	8			
5E	N/A (Fugitive)	N/A (Fugitive)	N/A (Fugitive)		750				
6E	2.0	1100	Est. 300		750	12			
8E	0.5	Ambient	3-4	<1	750	10			

¹ Give at operating conditions. Include inerts.

² Release height of emissions above ground level.

Emission Units Table

(includes all emission units and air pollution control devices
that will be part of this permit application review, regardless of permitting status)

Emission Unit ID ¹	Emission Point ID ²	Emission Unit Description	Year Installed/ Modified	Design Capacity	Type ³ and Date of Change	Control Device ⁴
CE-1	1E	Flash Gas Compressor Engine (Arrow VR 260)	Upon Receipt of Permit	47 Hp	NEW	1C (NSCR)
CE-2	2E	VRU Compressor Engine (Cummins G8.3)	Upon Receipt of Permit	118 Hp	NEW	2C (NSCR)
HTR-1	3E	Line Heater	Upon Receipt of Permit	0.25 MMBTU/Hr	NEW	None
HTR-2	4E	Separator Heater	Upon Receipt of Permit	1.0 MMBTU/Hr	NEW	None
T01	5E/6E	Condensate Tank	Upon Receipt of Permit	210 BBL	NEW	VRU-1/EC-1
T02	5E/6E	Condensate Tank	Upon Receipt of Permit	210 BBL	NEW	VRU-1/EC-1
T03	5E/6E	Condensate Tank	Upon Receipt of Permit	210 BBL	NEW	VRU-1/EC-1
T04	5E/6E	Condensate Tank	Upon Receipt of Permit	210 BBL	NEW	VRU-1/EC-1
T05	5E/6E	Condensate Tank	Upon Receipt of Permit	210 BBL	NEW	VRU-1/EC-1
EC-1	6E	Enclosed Combustor	Upon Receipt of Permit	62.10 MMBTU/Hr	NEW	N/A
T06	5E/6E	Produced Water Tank	Upon Receipt of Permit	210 BBL	NEW	VRU-1/EC-1
TL-1	6E	Condensate Truck Loading	Upon Receipt of Permit	1,050,000 Gallons/Yr.	NEW	EC-1
TL-2	8E	Produced Water Truck Loading	Upon Receipt of Permit	58,800 Gallons/Yr.	NEW	None
---	---	Fugitive VOC Emissions – Fittings and Connections	Upon Receipt of Permit	N/A	NEW	None
---	---	Haul Roads	Upon Receipt of Permit	1 Truck per day max.	NEW	None

¹ For Emission Units (or Sources) use the following numbering system: 1S, 2S, 3S, ... or other appropriate designation.

² For Emission Points use the following numbering system: 1E, 2E, 3E, ... or other appropriate designation.

³ New, modification, removal

⁴ For Control Devices use the following numbering system: 1C, 2C, 3C, ... or other appropriate designation.



WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF AIR QUALITY

601 57th Street, SE
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**APPLICATION FOR NSR PERMIT
AND
TITLE V PERMIT REVISION
(OPTIONAL)**

PLEASE CHECK ALL THAT APPLY TO NSR (45CSR13) (IF KNOWN):

- CONSTRUCTION MODIFICATION RELOCATION
 CLASS I ADMINISTRATIVE UPDATE TEMPORARY
 CLASS II ADMINISTRATIVE UPDATE AFTER-THE-FACT

PLEASE CHECK TYPE OF 45CSR30 (TITLE V) REVISION (IF ANY):

- ADMINISTRATIVE AMENDMENT MINOR MODIFICATION
 SIGNIFICANT MODIFICATION

IF ANY BOX ABOVE IS CHECKED, INCLUDE TITLE V REVISION INFORMATION AS ATTACHMENT S TO THIS APPLICATION

FOR TITLE V FACILITIES ONLY: Please refer to "Title V Revision Guidance" in order to determine your Title V Revision options (Appendix A, "Title V Permit Revision Flowchart") and ability to operate with the changes requested in this Permit Application.

Section I. General

1. Name of applicant (as registered with the WV Secretary of State's Office): Icon Midstream Pipeline, LLC		2. Federal Employer ID No. (FEIN): 47-1115453	
3. Name of facility (if different from above): Big Moses Liquid Management Facility		4. The applicant is the: <input type="checkbox"/> OWNER <input type="checkbox"/> OPERATOR <input checked="" type="checkbox"/> BOTH	
5A. Applicant's mailing address: 3130 Grants Lake Blvd. Suite 18859 Sugar Land, Texas 77496		5B. Facility's present physical address: None. Off of Big Moses Road near Alma, WV	
6. West Virginia Business Registration. Is the applicant a resident of the State of West Virginia? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <ul style="list-style-type: none"> - If YES, provide a copy of the Certificate of Incorporation/Organization/Limited Partnership (one page) including any name change amendments or other Business Registration Certificate as Attachment A. - If NO, provide a copy of the Certificate of Authority/Authority of L.L.C./Registration (one page) including any name change amendments or other Business Certificate as Attachment A. 			
7. If applicant is a subsidiary corporation, please provide the name of parent corporation: N/A			
8. Does the applicant own, lease, have an option to buy or otherwise have control of the proposed site? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <ul style="list-style-type: none"> - If YES, please explain: Applicant has a lease agreement with the land owner for installation of the facility - If NO, you are not eligible for a permit for this source. 			
9. Type of plant or facility (stationary source) to be constructed, modified, relocated, administratively updated or temporarily permitted (e.g., coal preparation plant, primary crusher, etc.): Natural Gas Well Pad and Production Facility		10. North American Industry Classification System (NAICS) code for the facility: 211111	
11A. DAQ Plant ID No. (for existing facilities only):		11B. List all current 45CSR13 and 45CSR30 (Title V) permit numbers associated with this process (for existing facilities only):	

All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.

Icon Midstream Pipeline, LLC

Big Moses
Tyler County, WV

POTENTIAL EMISSIONS SUMMARY

Source	Description	NOx lb/hr	CO lb/hr	CO2e lb/hr	VOC lb/hr	SO2 lb/hr	PM lb/hr	n-Hexane tpy	benzene lb/hr	formaldehyde lb/hr	Total HAPs lb/hr
HTR-1	Line Heater	0.02	0.02	25	0.00	0.00	0.00				
CE-1	Flash Compressor	0.21	0.41	54	0.01	0.00	0.01		0.0007	0.010	0.0149
CE-2	VRU Compressor Engine	0.26	0.52	124	0.03	0.00	0.05		0.0140	0.021	0.1125
HTR-2	Separator Heater	0.08	0.07	98	0.00	0.00	0.01			0.000	0.000
T01-T06	Condensate and Water Tank (Flash+Breathing+Working) ¹				5.57			0.17	0.00	0.000	0.180
	Fugitive VOC Emissions			2	0.38						
	Flash Gas Compressor Blowdowns			N/A	N/A						
	Haul Road Fugitive Dust						4.43				
	Pigging Emissions										
TL-2	Water Truck Loading				0.13						
	NGL Truck Loading				0.90						
TL-1	Condensate Truck Loading (Uncaptured) ²				0.78						0.05
EC-1	Captured/Controlled Tank and Truck Loading Emissions ³	0.30	1.65	593	3.40	0.00	0.00	0.07	0.00	0.0000	0.07
	Total	0.87	2.67	895	11.21	0.00	4.50	0.24	0.01	0.03	0.42

Source	Description	NOx tpy	CO tpy	CO2e tpy	VOC tpy	SO2 tpy	PM tpy	n-Hexane tpy	benzene tpy	formaldehyde tpy	Total HAPs tpy
HTR-1	Line Heater	0.09	0.07	107	0.00	0.00	0.01			0.00	
CE-1	Flash Compressor	0.91	1.81	238	0.06	0.00	0.04		0.00	0.04	0.07
CE-2	VRU Compressor Engine	1.14	2.28	542	0.13	0.00	0.22		0.01	0.09	0.49
HTR-2	Separator Heater	0.36	0.30	430	0.02	0.00	0.03			0.00	0.00
T01-T06	Condensate and Water Tank (Flash+Breathing+Working) ¹				34.38			0.73	0.01	0.00	0.80
	Fugitive VOC Emissions			8	1.67						
	Flash Gas Compressor Blowdowns			8	0.10						
	Haul Road Fugitive Dust						2.33				
	Pigging Emissions			651	7.85						
TL-2	Water Truck Loading				0.01						
	NGL Truck Loading				0.04						
TL-1	Condensate Truck Loading (Uncaptured) ²				0.05						0.01
EC-1	Captured/Controlled Tank and Truck Loading Emissions ³	0.06	0.32	116	0.63	0.00	0.00	0.02	0.01	0.00	0.03
	Total	2.55	4.78	2,101	34.94	0.01	2.63	0.75	0.04	0.13	1.39

¹ Condensate and produced water tank emissions are captured and routed to VRU with Combustor as backup.

² Per WWDEP Guidance on VRUs, a capture efficiency of 95% is claimed. This represents uncaptured.

³ Truck loading VOC emissions captured at 96.7% per AP-42 Chapter 5.2.2.1.1 for NSPS-certified trucks. This entry represents the 1.3% not captured.

Williams, Jerry

From: Roger Dhonau <RDhonau@se-env.com>
Sent: Thursday, February 25, 2016 2:48 PM
To: Williams, Jerry
Subject: Icon Midstream - Big Moses
Attachments: Attachment L - Bulk Liquid Transfer Operations.pdf; Attachment G - Process Description.pdf; Attachment J - Emissions Data .pdf

Jerry,

In follow-up to our phone conversation earlier today, attached please find a replacement for Attachment L – Bulk Liquids Transfer Operations. This was revised to correctly reflect the management of emissions from truck loading of condensate and produced water on the second page. In addition to the incorrect control efficiency for the condensate management, this form also indicated that there was control on emissions from truck loading of produced water. That is not the case. While that is correctly reflected in the calculations, this form incorrectly indicated that vapors from produced water loading were being routed to the Thermal Oxidizer.

In addition to the correction to the Bulk Liquids Transfer Operations form, I noticed a couple of other typographical error and wanted to get those fixed as well. First, please find a corrected Attachment G. This overview description also incorrectly stated that vapors from produced water truck loading will be going to the combustor. Again, that is not the case, as reflected in the calculations. Lastly, a couple of typos in Attachment J have been corrected (e.g. emission point 8E is TL-2, not TL-21).

Please let me know if there are any further questions or clarifications required.

Roger

Roger A. Dhonau, PE, QEP
SE Technologies, LLC



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ID # 095-00067
Reg R13-3293
Company Icon Midstream
Facility Big Moses Initials RD

Attachment L
EMISSIONS UNIT DATA SHEET
BULK LIQUID TRANSFER OPERATIONS

Furnish the following information for each new or modified bulk liquid transfer area or loading rack, as shown on the *Equipment List Form* and other parts of this application. This form is to be used for bulk liquid transfer operations such as to and from drums, marine vessels, rail tank cars, and tank trucks.

Identification Number (as assigned on <i>Equipment List Form</i>): TL-1 and TL-2	
1. Loading Area Name: Tank Truck Loading Area	
2. Type of cargo vessels accommodated at this rack or transfer point (check as many as apply): <input type="checkbox"/> Drums <input type="checkbox"/> Marine Vessels <input type="checkbox"/> Rail Tank Cars <input checked="" type="checkbox"/> Tank Trucks	
3. Loading Rack or Transfer Point Data:	
Number of pumps	3 (on truck)
Number of liquids loaded	3
Maximum number of marine vessels, tank trucks, tank cars, and/or drums loading at one time	2
4. Does ballasting of marine vessels occur at this loading area? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Does not apply	
5. Describe cleaning location, compounds and procedure for cargo vessels using this transfer point: None	
6. Are cargo vessels pressure tested for leaks at this or any other location? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If YES, describe:	

7. Projected Maximum Operating Schedule (for rack or transfer point as a whole):				
Maximum	Jan. - Mar.	Apr. - June	July - Sept.	Oct. - Dec.
hours/day	3	3	3	3
days/month	30	30	30	30
days/year	340	340	340	340

8. Bulk Liquid Data (add pages as necessary):						
Pump ID No.		N/A	N/A	N/A		
Liquid Name		Produced Water	Condensate	NGL		
Max. daily throughput (1000 gal/day)		3.36	8.4	9.24		
Max. annual throughput (1000 gal/yr)		58.8	1050	672		
Loading Method ¹		SP	BF	BF		
Max. Fill Rate (gal/min)		60	70	80		
Average Fill Time (min/loading)		56	60	60		
Max. Bulk Liquid Temperature (°F)		70	70	70		
True Vapor Pressure ²		0.3 psia	7.45 psia	92 psia		
Cargo Vessel Condition ³		U	U	U		
Control Equipment or Method ⁴		None	TO	VB		
Minimum control efficiency (%)		0	96.7	99+		
Maximum Emission Rate	Loading (lb/hr)	0.13	17.9	N/A		
	Annual (lb/yr)	2.27	2237	N/A		
Estimation Method ⁵		AP-42	AP-42			
¹ BF = Bottom Fill SP = Splash Fill SUB = Submerged Fill						
² At maximum bulk liquid temperature						

MONITORING. PLEASE LIST AND DESCRIBE THE PROCESS PARAMETERS AND RANGES THAT ARE PROPOSED TO BE MONITORED IN ORDER TO DEMONSTRATE COMPLIANCE WITH THE OPERATION OF THIS

RECORDKEEPING. PLEASE DESCRIBE THE PROPOSED RECORDKEEPING THAT WILL ACCOMPANY THE MONITORING.

REPORTING. PLEASE DESCRIBE THE PROPOSED FREQUENCY OF REPORTING OF THE RECORDKEEPING.

TESTING. PLEASE DESCRIBE ANY PROPOSED EMISSIONS TESTING FOR THIS PROCESS EQUIPMENT/AIR POLLUTION CONTROL DEVICE.

10. Describe all operating ranges and maintenance procedures required by Manufacturer to maintain warranty **N/A**

Icon Midstream Pipeline, LLC
Big Moses Liquids Management Facility
Attachment G – Process Description

Icon Midstream plans to install its Big Moses Liquids Management Facility contiguous with the Jay-Bee Oil & Gas Big Moses Station in Tyler County. (See Site Location Map). The Station will receive and manage natural gas and produced fluids (primarily raw condensate) from area production well pads owned and operated by others. At the station inlet, gas and produced fluids will be passed through a slug catcher where liquids will be separated from the gas. The gas will be routed to the inlet of the adjacent Jay-Bee Oil & Gas Big Moses station to be compressed, dehydrated and injected into pipelines for transportation to facilities owned by others for further processing. A portion of the gas will be used as fuel for Icon's equipment.

Liquids exiting the Slug Catcher will pass through a line heater and then enter a heated separator. In the heated separator, the liquids are first separated into Condensate and Produced Water (Brine). As the pressure is reduced, lighter components of the condensate is flashed off. The stabilized condensate is routed to a series of five 210 BBL aboveground storage tanks prior to transportation (via truck) to a processing facility owned and operated by others. The separated water is routed to a single 210 BBL aboveground storage tank prior to off-site transportation by others for re-use or disposal. The flash gas coming off of the heated separator will be routed to a flash gas compressor and passed through an air cooler. A fraction of the flash gas condenses during the pressurization and cooling process. This liquid (Natural Gas Liquids or NGL) will then be accumulated in a pressure vessel (approximately 120 psia) and transported via a pressurized tanker truck to a fractionation facility owned by others for further processing.

Vapors emitted by the stabilized condensate storage tanks will be captured by a hard piping system that will route the vapors to a Vapor Recovery Unit (VRU). This unit will compress the vapors and inject the gas into the sales line. Any liquids condensing during this pressurization and cooling process are routed to the NGL tank.

Any vapors not handled by the VRU or Flash Gas compressor will be controlled by enclosed combustors if/when one or both of the VRU or Flash Gas compressor are down for maintenance or other mechanical reasons. Vapors associated with condensate truck loading will also be routed to the enclosed combustor. As NGL truck loading will be via vapor balance between the pressurized storage vessels and the pressurized tanker truck, there will only be emissions associated with the connection/disconnection of the transfer lines.

In summary, emission sources at this facility will include the following:

- One Flash Gas Compressor Engine – Arrow VR 260 47 Hp
- One VRU Gas Compressor Engine – Cummins G8.3 118 Hp
- One 250 MBTU/Hr Line Heater
- One 1.0 MMBTU/Hr Separator Heater
- Five 210 BBL Stabilized Condensate Tanks
- One 210 BBL Produced Water Tank
- Stabilized Condensate/Produced water truck loading
- NGL truck loading
- Fugitive Emissions – Facility Roadways
- Fugitive Emissions – Component Leaks

ATTACHMENT J
Emission Points Data Summary Sheet
New Equipment Only

Table 1: Emissions Data

Emission Point ID No. (Must match Emission Units Table & Plot Plan)	Emission Point Type	Emission Unit Vented Through This Point (Must match Emission Units Table & Plot Plan)		Air Pollution Control Device (Must match Emission Units Table & Plot Plan)		Vent Time for Emission Unit (chemical processes only)		All Regulated Pollutants - Chemical Name/CAS ³ (Specify VOCs & HAPS)	Maximum Potential Uncontrolled Emissions ⁴		Maximum Potential Controlled Emissions ⁵		Emission Form or Phase (At exit conditions, Solid, Liquid or Gas/Vapor)	Est. Method Used ⁶	Emission Concentration ⁷ (ppmv or mg/m ³)
		ID No.	Source	ID No.	Device Type	Short Term ²	Max (hr/yr)		lb/hr	ton/yr	lb/hr	ton/yr			
1E	Upward Vertical Stack	CE-1	Flash Comp. Driver Engine	1C	NSCR	C	8760	NO _x	1.33	5.81	0.21	0.91	GAS	EE	
								CO	0.53	2.31	0.41	1.81	GAS	EE	
								VOC	0.01	0.06	0.01	0.06	GAS	EE	
								SO ₂	<0.01	<0.01	<0.01	<0.01	GAS	EE	
								PM/PM10	<0.01	<0.01	<0.01	<0.01	Solid	EE	
								Formaldehyde	0.01	0.04	0.01	0.04	Gas	EE	
								CO _{2e}	54	238	54	238	Gas	EE	
2E	Upward Vertical Stack	CE-2	VRU Driver Engine	2C	NSCR	C	8760	NO _x	3.88	14.81	0.26	1.14	GAS	EE	
								CO	2.24	9.80	0.52	2.28	GAS	EE	
								VOC	0.03	0.13	0.03	0.13	GAS	EE	
								SO ₂	<0.01	<0.01	<0.01	<0.01	GAS	EE	
								PM/PM10	0.05	0.22	0.05	0.22	Solid	EE	
								Formaldehyde	0.02	0.09	0.02	0.09	Gas	EE	
								CO _{2e}	124	542	124	542	Gas	EE	

Emission Point ID No. (Must match Emission Units Table & Plot Plan)	Emission Point Type ¹	Emission Unit Through This Point (Must match Emission Units Table & Plot Plan)		Air Pollution Control Device (Must match Emission Units Table & Plot Plan)		Vent Time for Emission Unit (chemical processes only)		All Regulated Pollutants - Chemical Name/CAS ³ (Specify VOCs & HAPS)	Maximum Potential Uncontrolled Emissions ⁴		Maximum Potential Controlled Emissions ⁵		Emission Form or Phase (At exit conditions, Solid, Liquid or Gas/Vapor)	Est. Method Used ⁶	Emission Concentration ⁷ (ppmv or mg/m ³)
		ID No.	Source	ID No.	Device Type	Short Term ²	Max (hr/yr)		lb/hr	ton/yr	lb/hr	ton/yr			
3E	Upward Vertical Vent	HTR-1	Line Heater	None	C	8760		NO _x	0.02	0.09	0.02	0.09	GAS	EE	
								CO	0.02	0.07	0.02	0.07	GAS	EE	
								VOC	<0.01	<0.01	<0.01	<0.01	GAS	EE	
								PM/PM10	<0.01	0.01	<0.01	0.01	Solid	EE	
								Benzene	<0.01	<0.01	<0.01	<0.01	Gas	EE	
								Formaldehyde	<0.01	<0.01	<0.01	<0.01	Gas	EE	
								CO2e	25	107	25	107	Gas	EE	
4E	Upward Vertical Vent	HTR-2	Separator Heater	None	C	8760		NO _x	0.08	0.36	0.08	0.36	GAS	EE	
								CO	0.07	0.30	0.07	0.30	GAS	EE	
								VOC	<0.01	0.02	<0.01	0.02	GAS	EE	
								PM/PM10	0.01	0.03	0.01	0.03	Solid	EE	
								Benzene	<0.01	<0.01	<0.01	<0.01	Gas	EE	
								Formaldehyde	<0.01	<0.01	<0.01	<0.01	Gas	EE	
								CO2e	98	430	98	430	Gas	EE	

Emission Point ID No. (Must match Emission Units Table & Plot Plan)	Emission Point Type ¹	Emission Unit Vented Through This Point (Must match Emission Units Table & Plot Plan)		Air Pollution Control Device (Must match Emission Units Table & Plot Plan)		Vent Time for Emission Unit (chemical processes only)		All Regulated Pollutants - Chemical Name/CAS ³ (Speciate VOCs & HAPS)	Maximum Potential Uncontrolled Emissions ⁴		Maximum Potential Controlled Emissions ⁵		Emission Form or Phase (At exit conditions, Solid, Liquid or Gas/Vapor)	Est. Method Used ⁶	Emission Concentration ⁷ (ppmv or mg/m ³)								
		ID No.	Source	ID No.	Device Type	Short Term ²	Max (hr/yr)		lb/hr	ton/yr	lb/hr	ton/yr											
5E	Upward Vertical Vent	T01-T05	Cond. Tanks + Water Tank Un-captured emissions	VRU-1	Vapor Recovery Unit	C	8760	NO _x						GAS	EE								
								CO											GAS	EE			
								VOC	111.26	487.3			5.50	24.37						GAS	EE		
								PM/PM10												Solid	EE		
								Benzene												Gas	EE		
								n-Hexane	3.33	14.6			0.17	0.73							Gas	EE	
								CO2e													Gas	EE	
6E	Upward Vertical Vent	TL-1	Cond. Tanks + Truck Loading	EC-1	Enclosed Combustor	S	500	NO _x			0.30	0.06			GAS	EE							
								CO					1.65	0.32						GAS	EE		
								VOC					3.40	0.63						GAS	EE		
								PM/PM10					<0.01	<0.01						Solid	EE		
								Benzene					<0.01	<0.01						Gas	EE		
								n-Hexane					0.07	0.02						Gas	EE		
								CO2e												Gas	EE		

Emission Point ID No. (Must match Emission Units Table & Plot Plan)	Emission Point Type ¹	Emission Unit Vented Through This Point (Must match Emission Units Table & Plot Plan)		Air Pollution Control Device (Must match Emission Units Table & Plot Plan)		Vent Time for Emission Unit (chemical processes only)		All Regulated Pollutants - Chemical Name/CAS ³ (Speciate VOCs & HAPS)	Maximum Potential Uncontrolled Emissions ⁴		Maximum Potential Controlled Emissions ⁵		Emission Form or Phase (At exit conditions, Solid, Liquid or Gas/Vapor)	Est. Method Used ⁶	Emission Concentration ⁷ (ppmv or mg/m ³)	
		ID No.	Source	ID No.	Device Type	Short Term ²	Max (hr/yr)		lb/hr	ton/yr	lb/hr	ton/yr				
7E	Upward Vertical Vent							NO _x					GAS	EE		
								CO					GAS	EE		
									VOC	0.16		0.16		GAS	EE	
			Produced Water Tank	T06	None				PM/PM10					Solid	EE	
									Benzene	<0.01		<0.01		Gas	EE	
									n-Hexane	<0.01		<0.01		Gas	EE	
									CO2e					Gas	EE	
8E	Upward Vertical Vent							NO _x					GAS	EE		
								CO					GAS	EE		
									VOC	0.13	<0.01	0.13	<0.01	GAS	EE	
			Produced Water Truck Loading	TL-2	None				PM/PM10					GAS	EE	
									Benzene					Solid	EE	
									Formaldehyde					Gas	EE	
									CO2e					Gas	EE	

The EMISSION POINTS DATA SUMMARY SHEET provides a summation of emissions by emission unit. Note that un-captured process emission unit emissions are not typically considered to be fugitive and must be accounted for on the appropriate EMISSIONS UNIT DATA SHEET and on the EMISSION POINTS DATA SUMMARY SHEET. Please note that total emissions from the source are equal to all vented emissions, all fugitive emissions, plus all other emissions (e.g. un-captured emissions). Please complete the FUGITIVE EMISSIONS DATA SUMMARY SHEET for fugitive emission activities.

- Please add descriptors such as upward vertical stack, downward vertical stack, horizontal stack, relief vent, rain cap, etc.
- Indicate by "C" if venting is continuous. Otherwise, specify the average short-term venting rate with units, for intermittent venting (i.e., 15 min/hr). Indicate as many rates as needed to clarify frequency of venting (e.g., 5 min/day, 2 days/wk).
- List all regulated air pollutants. Speciate VOCs, including all HAPs. Follow chemical name with Chemical Abstracts Service (CAS) number. LIST Acids, CO, CS₂, VOCs, H₂S, Inorganics, Lead, Organics, O₃, NO, NO₂, SO₂, SO₃, etc. **DO NOT LIST** CO₂, H₂, H₂O, N₂, O₂, and Noble Gases.
- Give maximum potential emission rate with no control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g., 5 lb VOC/20 minute batch).
- Give maximum potential emission rate with proposed control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g., 5 lb VOC/20 minute batch).
- Indicate method used to determine emission rate as follows:
 MB = material balance; ST = stack test (give date of test); EE = engineering estimate; O = other (specify).

ATTACHMENT J

**Emission Points Data Summary Sheet
New Equipment**

Table 2: Release Parameter Data

Emission Point ID No. <i>(Must match Emission Units Table)</i>	Inner Diameter (ft.)	Temp. (°F)	Exit Gas			Emission Point Elevation (ft)		UTM Coordinates (km)	
			Volumetric Flow ¹ (acfm) <i>at operating conditions</i>	Velocity (fps)	Ground Level (Height above mean sea level)	Stack Height ² (Release height of emissions above ground level)	Northing	Easting	
1E	0.5	1050	310	45	750	8			
2E	0.5	1127	528	45	750	8			
3E	0.25	1100	Est. 200	1	750	8			
4E	0.33	1100	Est. 300	<1	750	8			
5E	N/A (Fugitive)	N/A (Fugitive)	N/A (Fugitive)		750				
6E	2.0	1100	Est. 300		750	12			
7E	0.5	Ambient	<10	<1	750	15			
8E	0.5	Ambient	3-4	<1	750	10			

¹ Give at operating conditions. Include inerts.

² Release height of emissions above ground level.

Williams, Jerry

From: Williams, Jerry
Sent: Monday, February 22, 2016 8:43 AM
To: Shane Dowell; Roger Dhonau
Cc: McKeone, Beverly D
Subject: WV DAQ NSR Permit Application Complete for Icon Midstream Pipeline, LLC - Big Moses Facility

**RE: Application Status: Complete
Icon Midstream Pipeline, LLC - Big Moses Facility
Permit Application R13-3293
Plant ID No. 095-00067**

Mr. Dowell,

Your application for a construction permit for a liquids management facility was received by this Division on January 20, 2016 and assigned to the writer for review. Upon review of said application, it was determined that the application was incomplete as submitted and additional information was requested. The requested information has been received, therefore, the statutory review period commenced on February 22, 2016.

In the case of this application, the agency believes it will take approximately 90 days to make a final permit determination.

This determination of completeness shall not relieve the permit applicant of the requirement to subsequently submit, in a timely manner, any additional or corrected information deemed necessary for a final permit determination.

Should you have any questions, please contact Jerry Williams at (304) 926-0499 ext. 1223 or reply to this email.

Jerry Williams, P.E.
Engineer
WVDEP – Division of Air Quality
601 57th Street, SE
Charleston, WV 25304
(304) 926-0499 ext. 1223
jerry.williams@wv.gov



 Please consider the environment before printing this email.

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Williams, Jerry

From: Roger Dhonau <RDhonau@se-env.com>
Sent: Friday, February 19, 2016 1:48 PM
To: Williams, Jerry
Cc: Shane Dowell
Subject: FW: Icon Big Moses Updated Information
Attachments: Revised Attachment D 2-16-15.pdf; Icon Letterhead.pdf

Jerry,

Here is the revised Attachment D and associated cover letter signed by Shane on Icon Letterhead. Obviously, if you never received it, that explains a lot. I will touch base with you next week to make sure that this meets your needs.

Have a good weekend !

Roger

Roger A. Dhonau, PE, QEP
SE Technologies, LLC



TECHNOLOGIES
98 Vanadium Rd., Bldg. D
Bridgeville, PA 15017
412/221-1100, ext. 1628

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From: Shane Dowell [mailto:sdowell@jaybeeoil.com]
Sent: Wednesday, February 17, 2016 10:38 AM
To: Jerry.J.Williams@Wv.Gov
Cc: Roger Dhonau
Subject: Icon Big Moses Updated Information

Mr. Williams,

Please see the attached updated Attachment D and Icon company letter with explanation of the updates. I appreciate, as usual, your willingness to work through specific adjustments needed. I appreciate any speed you can add to the review process!

Thanks,
Shane Dowell
Office Manager
Jay-Bee Oil & Gas, Inc.
sdowell@jaybeeoil.com
(304) 628-3111 - office

ID # 095-00067
Reg 1213-3293
Company Icon Midstream
Facility Big Moses Initials sd

NON-CONFIDENTIAL

Icon Midstream Pipeline, LLC
3130 Grants Lake Blvd. #18859
Sugar Land, Texas 77496
Tel 713-501-7766
iconmidstream@gmail.com



ICON MIDSTREAM

FEBRUARY 12, 2016

Mr. Jerry Williams

West Virginia Dept. of Environmental Protection
Division of Air Quality – Permitting Section
601 57th Street, SECharleston, WV 25304

**RE: Application for NSR Construction Permit
Big Moses Liquid Management Facility
Icon Midstream Pipeline, LLC
Tyler County, West Virginia**

Dear Mr. Williams

As a result of discussions between our consultant, SE Technologies and yourself, we understand that the above referenced facility must be aggregated with the contiguous Jay-Bee Oil & Gas Big Moses Stations for determining Major Source status and Title V permitting status. As you were advised, upon completion of installation of Icon's facility, certain permitted emission source at the Jay-Bee Big Moses Station will no longer be needed and will be removed from the permit or placed under strict usage limitations. This will reduce the combined emissions of the two facilities to amounts that are well below the threshold for Title V permitting.

In order to properly reflect this relationship between Jay-Bee and Icon at this location, enclosed please find a replacement Attachment D for the above referenced application. In addition to revision of the discussion on aggregation and applicability of Title V requirements, this replacement attachment also includes the associated calculations supporting our position that emissions will not exceed Title V thresholds.

Icon is eager to begin operation of this equipment at the earliest practical date. Consequently, if there are any further questions or concerns regarding this application, please contact our consultant, Roger Dhonau of SE Technologies at 412/221-1100, x 1628 or rdhonau@se-env.com or me, and we will provide any needed clarification or additional information immediately.

Sincerely,

Icon Midstream Pipeline, LLC

Shane Dowell

OPERATIONS MANAGER

Enclosures

Cc: Roger Dhonau – SE Technologies, LLC

Icon Midstream Pipeline, LLC

Big Moses Liquids Management Facility Attachment D – Regulatory Analysis

Both State and Federal environmental regulations governing air emissions apply to the planned Big Moses Station. The West Virginia Department of Environmental Protection (WVDEP) has been delegated the authority to implement certain federal air quality requirements for the state. Air quality regulations that potentially affect the modification are discussed herein.

1.1 PSD and NSR

The facility will be a minor source with respect to Prevention of Significant Deterioration (PSD) regulations as it will not have the potential to emit more than the annual emission thresholds of any PSD regulated pollutant with the voluntary restrictions (e.g., catalytic converters on engines).

The facility is within an area designated as attainment. Consequently, the facility is not subject to the New Source Review (NSR) regulations.

1.2 Title V Operating Permit Program

West Virginia has incorporated provisions of the federal Title V operating permit program. Thresholds for inclusion under the Title V program are 10 tpy of any single Hazardous Air Pollutant (HAP) or 25 tons of any combination of HAP and/or 100 tpy of all other regulated pollutants. Additionally, facilities regulated under certain New Source Performance Standards (NSPS) require facilities to have Title V permits.

Aggregation with the contiguous Jay-Bee facility (see Section 1.3) would trigger the need for a Title V permit due to combined potential VOC emissions of the two facilities exceeding 100 tpy. However, upon start-up of the Icon Big Moses facility, several emission sources at the contiguous Jay-Bee Big Moses Station will no longer be needed or needed in only a reduced capacity. Sources that will be removed, will be removed within 30 days of start-up of the Icon Big Moses facility and annual hourly restrictions on equipment with reduced utilization will begin immediately. Thus, annual VOC emissions of the combined facilities will be below 100 tpy. Accordingly, a Title V permit is not warranted. A separate Class I Administrative Update application is being submitted for removal of one CAT 3608 engine and associated compressor from the permit for the Jay-Bee Big Moses Station along with an hourly restriction on one of the three dehydration units at this facility to 1750 hours per year and limitation to 1000 hours per year on one of the remaining CAT 3608 engines. Calculations demonstrating that the combined emissions of the two facilities are below the Title V threshold are provided at the end of this Attachment.

Lastly, the NSPS regulating this facility does not trigger a Title V permit. Hence, a Title V permit will not be required for Icon Midstream's Big Moses Liquids Management Facility.

1.3 Aggregation

Source aggregation determinations are typically made based on the following criteria:

- Whether the facilities are under common control,
- Whether the facilities belong to the same Major Group (i.e. the first two digit code) as described in the Standard Industrial Classification Manual, 1972, as amended by the 1977 Supplement;
- Whether the facilities are located on one or more contiguous or adjacent properties; and the distance between all pollutant emitting activities,
- Whether the facilities can operate independently

Only if all criteria are met does a permitting authority aggregate the facilities into a single source.

The Icon Midstream facility will receive produced liquids and natural gas from area well pads via pipeline. After separation of liquids from the gas, a small fraction of the gas is taken for powering facility equipment with the vast majority being metered and routed to the contiguous Big Moses Station owned and operated by Jay-Bee Oil & Gas. The received liquids are separated into produced water, condensate and NGL prior to off-site shipment via truck transportation.

There are no liquids or gas routed to or received from any other Icon Midstream facility. Hence, no other Icon Midstream facilities in the area should be aggregated with this new facility. Additionally, gas and liquids generated by the well pads this facility will serve can be routed to other locations, such as is currently the situation. Hence, there is no interdependency between the well pads this Icon Midstream facility will serve and the Icon Midstream facility. Thus, the planned Icon Midstream facility should not be aggregated with the well pads it will serve. Additionally, this Icon Midstream facility is approximately 1.3 miles from the nearest well pad it serves.

The contiguous Big Moses Station is under the same general SIC Code. Although it has separate ownership (Jay-Bee Oil & Gas), there is some sharing of personnel. There is also some interdependency between the two facilities. While liquids received by the Icon Midstream facility are managed separately from the gas and liquids received and managed at the contiguous Jay-Bee facility, gas is routed from the Icon facility for management at Big Moses Station. Hence, there is a degree of dependency by Icon for management of gas by Jay-Bee. Therefore, emissions from the Big Moses Liquids Management Facility must be aggregated with Jay-Bee's Big Moses Station to determine major source status.

1.4 New Source Performance Standards

New Source Performance Standards (NSPS) regulations promulgated under 40 CFR 60 require new and reconstructed facilities to control emissions to the level achievable by Best-Available Control Technology (BACT). Specific NSPS requirements potentially applicable to the proposed modification to the Big Moses Station are as follows:

- 40 CFR 60, Subpart K/Ka/Kb – Storage Vessels for Petroleum Liquids/Volatile Organic Liquids
- 40 CFR 60, Subpart Dc—Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units
- 40 CFR 60, Subpart KKK – Equipment Leaks of VOC from Onshore Natural Gas Processing Stations
- 40 CFR 60, Subpart IIII – Stationary Compression Ignition Internal Combustion Engines
- 40 CFR 60, Subpart JJJJ – Stationary Spark Ignition Internal Combustion Engines
- 40 CFR 60, Subpart OOOO - Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution

1.4.1 Subpart K/Ka/Kb

These three subparts apply to volatile organic liquid storage tanks of specific sizes constructed in certain timeframes. Their consideration is appropriate due to the presence of the condensate tanks. Subpart K applies to tanks constructed or modified between 1973 and 1978 while Subpart Ka applies to tanks constructed between 1978 and 1984. Subpart Kb applies to storage tanks constructed or modified after 1984. The condensate tanks planned for this facility were constructed after 1984. Thus, Subparts K and Ka are not applicable, but Subpart Kb is tentatively applicable. However, the capacity of these tank (16,800 gallons or 400 BBL) is less than the threshold for this regulation (19,800 gallons or 75 cubic meters). Hence, the rule does not apply. [40 CFR 60.111(a)(1), 40 CFR 60.111a(a)(1) and 40 CFR 60.110b(d)(2)]

1.4.2 Subpart Dc

This subpart limits SO₂ and PM emissions from boilers and heaters fired by various fuels. While the primary thrust of this set of regulations is to control SO_x and PM emissions from coal and oil-fired boilers and heaters, natural gas fired units are also covered under this rule. The planned heaters are well below the threshold of coverage for this rule (10 MMBTU/Hr). Thus, this rule does not apply.

1.4.3 Subpart KKK

This subpart limits VOC emissions from equipment at a natural gas processing station. In accordance with 40 CFR 60.631, a “*Natural gas processing plant* (gas plant) means any processing site engaged in the extraction of natural gas liquids from field gas, fractionation of mixed natural gas liquids to natural gas products, or both.” Although the planned facility will separate received liquids into NGL and condensate, this operation does not rise to the definition of fractionation into products. Hence, the planned facility does not meet the definition of a processing station under this rule and this rule does not apply.

1.4.4 Subpart IIII

This subpart governs emissions from new compression ignition internal combustion engines (CI ICE) manufactured after July 11, 2005. There are currently no compression ignition engines (e.g.

diesel-fired emergency generator) at this station. The proposed modification will include only the addition of a single Spark Ignition Internal Combustion Engine. Hence, this rule does not apply.

1.4.5 Subpart JJJJ

This subpart governs emissions from new stationary spark ignition internal combustion engines (SI ICE) manufactured after July 1, 2007. The drivers for the VRU and Flash Gas Compressors presented in this application will be SI ICE units manufactured after this date. Accordingly, this rule applies to those engines. In accordance with 40 CFR 60.4233(d), the 47 Hp Flash Gas Compressor must meet the requirements of 40 CFR 1048.101(c). In accordance with this rule, the HC + NO_x standard is 3.8 g/kW-hr and the CO standard is 6.5 g/kW-hr. The engine will meet this requirement. Thus, the engine is compliant with Subpart JJJJ.

1.4.6 Subpart OOOO

This subpart governs emissions from a broad spectrum of operations in the oil and natural gas industries, including operations at processing and fractionation plants. The potentially applicable sections of this rule set restrictions on pneumatic controllers present and set requirements for storage vessels with potential VOC emissions greater than 6 tons per year. This rule applies to the planned Icon Midstream facility.

One of the key components to this rule [40 CFR 60.5390(b)] is the requirement that all pneumatic controllers located between the well head and a processing plant must have a bleed rate of less than 6 scfh. All pneumatic controllers to be installed at the new station will meet these criteria.

This rule also stipulates that storage vessels with VOC emissions equal to or greater than 6 tpy must control those emissions by 95% by October 15, 2013. The condensate tanks will have estimated uncontrolled VOC emissions in excess of this amount. Hence this element of the rule applies to the planned facility. Icon Midstream will meet this requirement through installation of a vapor recovery unit. This device will collect organic vapors emitted by the condensate, compress it and routed to the inlet side of the adjacent Jay-Bee Big Moses facility. This system is anticipated to be close to 100 percent effective during operation. While there will be anticipated maintenance outages on the VRU system, its overall annual effectiveness is conservatively projected to be greater than 95%. For permitting purposes only a 95% control is claimed.

1.5 **National Emission Standards for Hazardous Air Pollutants**

National Emission Standards for Hazardous Air Pollutants (NESHAPs) promulgated under 40 CFR 63 regulate the emission of Hazardous Air Pollutants (HAPs) from certain industrial processes. In general, these rules apply to major sources of HAPs with a major source being defined as having the potential to emit more than 10 tpy of any individual HAP or 25 tpy of total HAPs. Emissions standards under these rules have been established as the Maximum Achievable Control Technology (MACT) for each source category. The following NESHAP source category

standards are potentially applicable to the planned modification to the Big Moses Liquids Management Facility:

- 40 CFR 63, Subpart HH – NESHAP from Oil and Natural Gas Production Facilities
- 40 CFR 63, Subpart ZZZZ – NESHAP from Stationary Reciprocating Internal Combustion Engines
- 40 CFR 63, Subpart DDDDD – NESHAP for Industrial, Commercial and Institutional Boilers and Process Heaters

1.5.1 Subpart HH

This Subpart contains MACT standards for major and area source dehydration units located at natural gas production facilities. The proposed equipment for this Icon Midstream facility does not contain a dehydration operation. Hence, this rule does not apply.

1.5.2 Subpart ZZZZ

This Subpart governs emissions from a stationary reciprocating internal combustion engine (RICE) located both at major and area source of HAPs. The facility is not be a major source of HAPs, but is considered an area source of HAPs. Hence, this rule is potentially applicable to the facility. In accordance with 40 CFR 63.6590(a)(2)(iii), the driver for the proposed emergency generator will not be considered an Existing Stationary RICE. It will be considered “new” engines. Thus, the engine will meet the requirements of this rule by meeting the requirements of NSPS, Subpart JJJJ as described above.

1.5.3 Subpart DDDDD

This Subpart applies to industrial process heaters of various sizes and fuel types located at facilities that are classified as a major source of HAPs. As the planned facility is not a major source of HAPs, this rule does not apply.

1.6 **Chemical Accident Prevention**

Subparts B-D of 40 CFR 68 present the requirements for the assessment and subsequent preparation of a Risk Management Plan (RMP) for a facility that stores more than a threshold quantity of a regulated substance listed in 40 CFR 68.130. If a facility stores, handles or processes one or more regulated substances in an amount greater than its corresponding threshold, the facility must prepare and implement an RMP. The Big Moses Liquids Management Facility does potentially store more than 10,000 lbs of a flammable mixture containing several of the substances listed in Table 3 in 40 CFR 68.130. However, an RMP is not required as this facility qualifies for the exclusion provided for remote oil and gas production facilities (40 CFR 68.115). The addition of an emergency generator does not change the status of the facility with respect to RMP.

1.7 **West Virginia State Requirements**

1.7.1 45 CSR 2

The facility is subject to the opacity requirement of 45 CSR 2. Emissions from the facility cannot exceed 10% over any six minute period.

1.7.2 45 CSR 4

This regulation prohibits the emission of objectionable odors. Icon Midstream is obligated to run the station in a manner that does not produce objectionable odors.

1.7.3 45 CSR 10

This regulation limits emissions of sulfur oxides. As the sulfur content of the Inlet Gas contains no measurable sulfur, emissions of sulfur oxides is negligible. Thus, while parts of this rule are applicable to the facility, no actions are required on the part of Icon Midstream to attain compliance. The various non-engine combustion units have a design heat input less than 10 MMBTU/Hr and are therefore exempt from the requirements of this rule. Additionally, other fuel-burning units at the expanded facility (e.g. engines) are not subject to 45 CSR 10, Section 3 as they do not produce power by indirect heat transfer and are therefore not considered "fuel burning units". The fuel sulfur content is sufficiently low that the proposed engines will easily meet the requirements of this rule.

1.7.4 45 CSR 13

The state regulations applicable to the permitting of the proposed construction are in Title 45 Series 13 of the Code of State Regulations. The proposed modification to Big Moses Liquids Management Facility has the potential to emit several regulated pollutants in excess of the thresholds that define a Stationary Source. This modification will not materially change the facility's potential to emit. It will remain less than the thresholds that would classify the facility as a Major Source under 45 CSR 14.

1.7.5 45 CSR 16

This series of regulations is an incorporation, by reference, of the New Source Performance Standards codified under 40 CFR 60. As discussed under the federal regulations, the Big Moses Liquids Management Facility is subject to the emission limitations, monitoring, testing and recordkeeping of Subpart JJJJ.

1.7.6 45 CSR 30

The state regulations applicable to Title V operating permits are in Title 45 Series 30. The planned Big Moses Liquids Management Facility, as noted above, does not have the potential to emit any regulated pollutant about the threshold that would define it as a major facility. The installation of an emergency generator does not trigger the need for a Title V permit.

1.7.7 Other Applicable Requirements

Through Series 34, WVDEP has adopted the National Emission Standards for Hazardous Air Pollutants for Source Categories. Both of these topics have been addressed above.

Icon Midstream Pipeline, LLC

Big Moses
Tyler County, WV

POTENTIAL EMISSIONS SUMMARY

Source	Description	NOx lb/hr	CO lb/hr	CO2e lb/Hr	VOC lb/hr	SO2 lb/hr	PM lb/hr	n-Hexane tpy	benzene lb/hr	Formaldehyde lb/hr	Total HAPs lb/hr
HTR-1	Line Heater	0.02	0.02	25	0.00	0.00	0.00				
CE-1	Flash Compressor	0.21	0.41	54	0.01	0.00	0.01		0.0007	0.010	0.0149
CE-2	VRU Compressor Engine	0.26	0.52	124	0.03	0.00	0.03		0.0140	0.021	0.1125
HTR-2	Separator Heater	0.08	0.07	98	0.00	0.00	0.01			0.000	0.000
T01-T06	Condensate and Water Tank (Flash-Breathing-Working) ¹				5.60			0.17	0.00	6.000	0.180
	Fugitive VOC Emissions			2	0.38						
	Flash Gas Compressor Blowdowns			N/A	N/A						
	Haul Road Fugitive Dust						4.43				
	Pigging Emissions										
TL-2	Water Truck Loading				0.13						
	NGL Truck Loading				0.90						
TL-1	Condensate Truck Loading (Uncaptured) ²				0.78						0.05
EC-1	Captured/Controlled Tank and Truck Loading Emissions ³	0.30	1.65	393	3.40	0.00	0.00	0.07	0.00	0.0000	0.07
	Total	0.87	2.67	895	11.24	0.90	4.50	0.24	0.01	0.03	0.42

Source	Description	NOx tpy	CO tpy	CO2e tpy	VOC tpy	SO2 tpy	PM tpy	n-Hexane tpy	benzene tpy	Formaldehyde tpy	Total HAPs tpy
HTR-1	Line Heater	0.09	0.07	107	0.00	0.00	0.01			0.00	
CE-1	Flash Compressor	0.91	1.81	238	0.06	0.00	0.04		0.00	0.04	0.07
CE-2	VRU Compressor Engine	1.14	2.28	342	0.13	0.00	0.22		0.01	0.09	0.49
HTR-2	Separator Heater	0.36	0.30	430	0.02	0.00	0.03			0.00	0.00
T01-T06	Condensate and Water Tank (Flash-Breathing-Working) ¹				24.53			0.73	0.01	0.00	0.80
	Fugitive VOC Emissions			8	1.67						
	Flash Gas Compressor Blowdowns			8	0.10						
	Haul Road Fugitive Dust						2.33				
	Pigging Emissions			651	7.85						
TL-2	Water Truck Loading				0.01						
	NGL Truck Loading				0.04						
TL-1	Condensate Truck Loading (Uncaptured) ²				0.05						0.01
EC-1	Captured/Controlled Tank and Truck Loading Emissions ³	0.06	0.32	116	0.63	0.00	0.00	0.02	0.01	0.00	0.03
	Total	2.55	4.78	2,101	35.09	0.01	2.63	0.75	0.04	0.13	1.39

Emissions from Modified Jay-Bee Big Moses Station 35.19 16.15 36,613 56.12 0.14 2.97 0.00 0.00 0.63 0.25

Combined Jay-Bee and Icon Emissions 37.74 20.93 38713.89 91.20 0.15 5.59 0.75 0.04 0.76 1.64

¹ Condensate tank emissions are captured and routed to VRU with Combustor as backup.
² Per WVDEP Guidance on VRUs, a capture efficiency of 95% is claimed. This represents uncaptured.
³ Truck loading VOC emissions captured at 98.7% per AP-42 Chapter 5.2.2.1.1 for NSPS-certified trucks. This entry represents the 1.3% not captured.
⁴ 98.7% captured truck loading emissions routed to combustor EC-1

Jay-Bee Oil & Gas, LLC

Big Moses
Tyler County, WV

Source	Description	NOx lb/hr	CO lb/hr	CO2e lb/hr	VOC lb/hr	SO2 lb/hr	PM lb/hr	n-Hexane	benzene	formaldehyde lb/hr	Total HAPs lb/hr
								lb/Hr	lb/hr		
CE-1	Compressor Engine #1	2.87	1.11	2819.98	2.87	0.011	0.182	0.020	0.008	0.287	0.621
CE-2	Compressor Engine #2	2.87	1.11	2819.98	2.87	0.011	0.182	0.020	0.008	0.287	0.621
CE-3	Compressor Engine #3	1.52	0.61	1749.31	0.61	0.007	0.113	0.013	0.005	0.304	0.511
CE-4	Compressor Engine #4 (Previously Removed)	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000
CE-5	Compressor Engine #5 (To Be Restricted to 1000 Hours per year)	2.87	1.11	2819.98	2.87	0.011	0.182	0.020	0.008	0.287	0.621
CE-6	Compressor Engine #6 (To Be Removed from Permit)	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000
HTR-1- HTR-3	Three 1.0 MMBTU/Hr Reboilers	0.30	0.25	362.36	0.02	0.002	0.023	0.005	0.002	0.000	0.006
RSV-1	Dehy Still Vent (controlled)	0.03	0.02	98.99	1.71	0.000	0.002	0.038	0.016		0.188
RSV-2	Dehy Still Vent (controlled)	0.03	0.02	98.99	1.71	0.000	0.002	0.038	0.016		0.188
RSV-3	Dehy Still Vent (controlled and Restricted to 1750 Hours per year)	0.03	0.02	98.99	1.71	0.000	0.002	0.038	0.016		0.188
---	Blowdowns ¹			N/A	N/A						N/A
T02	Produced Fluids Tank (controlled)	0.08	0.44	139.09	0.72		0.004				0.011
TL-1	Truck Loading				7.46						0.510
---	Truck Traffic ²						6.33				
---	Fittings Fugitive Emissions			21.32	0.35						0.006
Total		10.60	4.68	11,029	22.90	0.04	7.02	0.19	0.08	1.16	3.47

Source	Description	NOx tpy	CO tpy	CO2e tpy	VOC tpy	SO2 tpy	PM tpy	n-Hexane	benzene	formaldehyde tpy	Total HAPs tpy
								TPY	tpy		
CE-1	Compressor Engine #1	12.59	4.85	12,352	12.59	0.048	0.80	0.09	0.04	1.26	2.722
CE-2	Compressor Engine #2	12.59	4.85	12,352	12.59	0.048	0.80	0.09	0.04	1.26	2.722
CE-3	Compressor Engine #3	6.66	2.67	7,662	3.86	0.030	0.50	0.06	0.02	1.33	2.238
CE-4	Compressor Engine #4 (Previously Removed)	0.00	0.00	0	0.00	0.000	0.00	0.00	0.00	0.00	0.000
CE-5	Compressor Engine #5 (To Be Restricted to 1000 Hours per year)	1.44	0.55	1,410	1.44	0.005	0.09	0.01	0.00	0.14	0.311
CE-6	Compressor Engine #6 (To Be Removed from Permit)	0.00	0.00	0	0.00	0.000	0.00	0.00	0.00	0.00	0.000
RBV-1 to RBV-3	Three 1.0 MMBTU/Hr Reboilers	1.31	1.10	1,587	0.07	0.008	0.10	0.02	0.00	0.00	0.025
RSV-1	Dehy Still Vent (controlled)	0.11	0.09	136	7.51	0.001	0.01	0.17	0.07		0.821
RSV-2	Dehy Still Vent (controlled)	0.11	0.09	136	7.51	0.001	0.01	0.17	0.07		0.821
RSV-3	Dehy Still Vent (controlled and Restricted to 1750 Hours per year)	0.02	0.02	27.28	1.56	0.00	0.00	0.03	0.01	0.00	0.16
---	Blowdowns ¹			248	3.19						0.190
T02	Produced Fluids Tank (controlled)	0.35	1.93	609	3.16		0.02				0.100
TL-1	Truck Loading				1.19						0.080
---	Truck Traffic ²						0.65				
---	Fittings Fugitive Emissions			93	1.52						0.026
Total		35.19	16.15	36,613	56.12	0.14	2.97	0.63	0.25	3.99	10.22

¹ See Attachment C for Blowdown Calculations

² This represents fugitive dust emissions from tank truck removing accumulated produced water/condensate from the facility.

Williams, Jerry

From: Williams, Jerry
Sent: Friday, February 19, 2016 8:49 AM
To: 'iconmidstream@gmail.com'; Roger Dhonau
Cc: McKeone, Beverly D
Subject: WV DAQ Permit Application Incomplete for Icon Midstream Pipeline, LLC Big Moses Liquid Management Facility

**RE: Application Status: Incomplete
Icon Midstream Pipeline, LLC Big Moses Liquid Management Facility
Permit Application No. R13-3292
Plant ID No. 095-00067**

Mr. Dowell,

Your application for a construction permit for a natural gas liquids management facility was received by this Division on January 20, 2016 and assigned to the writer for review. Upon initial review of said application, it has been determined that the application as submitted is incomplete based on the following items:

1. The permit application indicates that common control does not exist between Icon and Jay-Bee Oil & Gas. However, it appears that Shane Dowell (the Responsible Official) works for both companies. He signed this permit application and also one for Jay Bee several weeks ago. The facilities already possess the same two digit SIC code and are contiguous or adjacent. Additionally, the process description indicates that natural gas will be routed from the Icon facility to the inlet of the co-located Jay Bee facility to be compressed, dehydrated and injected into pipelines. Please elaborate on how these companies are not under common control, yet appear to have the same Responsible Official and the co-located Jay-Bee facility receives natural gas from Icon to process.

Please address the above deficiencies in writing within fifteen (15) days of the receipt of this email. Application review will not commence until the application has been deemed to be technically complete. Failure to respond to this request in a timely manner may result in the denial of the application.

Should you have any questions, please contact Jerry Williams at (304) 926-0499 ext. 1223 or reply to this email.

Jerry Williams, P.E.
Engineer
WVDEP – Division of Air Quality
601 57th Street, SE
Charleston, WV 25304
(304) 926-0499 ext. 1223
jerry.williams@wv.gov



Please consider the environment before printing this email.

NON-CONFIDENTIAL

AIR QUALITY PERMIT NOTICE

Notice of Application

Notice is given that Icon Midstream Pipeline, LLC has applied to the West Virginia Department of Environmental Protection, Division of Air Quality, for a Construction Permit for its Big Moses Liquids Management Facility located off of Big Moses Road near Alma, WV in Tyler County, West Virginia. (Lat. 39.43011, Long. -80.78876)

The applicant estimates the increase in potential to discharge the following regulated air pollutants:

2.55 tons of Nitrogen Oxides per year

4.78 tons of Carbon Monoxide per year

35.09 tons of Volatile Organics per year

0.01 tons of Sulfur Dioxide per year

2.63 tons of Particulate Matter per year

0.04 tons of Benzene

0.75 tons of n-Hexane

0.13 tons of formaldehyde

2,101 tons of CO2e per year

Startup of the modified operation is planned to begin on or about the 30th day of March, 2016. Written comments will be received by the West Virginia Department of Environmental Protection, Division of Air Quality, 601 57th Street, SE, Charleston, WV 25304, for at least 30 calendar days from the date of publication of this notice.

Any questions regarding this permit application should be directed to the DAQ at (304) 926-0499, extension 1250, during normal business hours.

Dated this the 27th day of January, 2016.

By: Mr. Shane Dowell
Operations Manager
Icon Midstream Pipeline, LLC
TSN 2092 1/27

TYLER STAR NEWS

Sistersville, WV January 27 2016

State of West Virginia, County of Tyler:

Personally appeared before the undersigned, a Notary Public,

..... Brian Clutter who, being duly sworn,

states that he is the manager of the Tyler Star News, a weekly

newspaper of general circulation, published at Sistersville,

County of Tyler, State of West Virginia, and that a copy of the

notice attached hereto was published for.....1..... successive

weeks in the Tyler Star News, beginning on the27..... day

of January 2016 and ending on the27..... day

of January 2016.

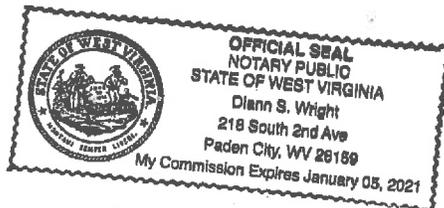
..... [Signature]
Manager, Tyler Star News

Subscribed and sworn to before me, a Notary Public of said
County, on this 27 day of January 2016.

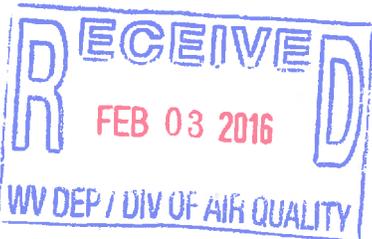
..... [Signature] Notary Public

My commission expires on the 5th day of January, 2021.

Printers Fee.....



NON-CONFIDENTIAL



ID # CAF-00067
Reg 163-3293
Company Icon Midstream
Big Moses Initials JW

Williams, Jerry

From: Roger Dhonau <RDhonau@se-env.com>
Sent: Wednesday, January 27, 2016 2:53 PM
To: Williams, Jerry
Subject: RE: Icon Midstream - Big Moses Liquids Management Facility
Attachments: Corrected page.pdf

Jerry,
My apologies for not getting this right the second time around. Please see the attached replacement sheet.

Roger

Roger A. Dhonau, PE, QEP
SE Technologies, LLC
98 Vanadium Rd., Bldg. D
Bridgeville, PA 15017
412/221-1100, ext. 1628



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From: Williams, Jerry [mailto:Jerry.Williams@wv.gov]
Sent: Wednesday, January 27, 2016 1:21 PM
To: Roger Dhonau
Subject: RE: Icon Midstream - Big Moses Liquids Management Facility

Roger,

My issue with #2 was that block 9 indicates that this is a natural gas well pad and production facility. I do not believe that it is. Please correct this box.

Thanks,
Jerry

ID # 095-00067
Reg R13-3293
Company ICON MIDSTREAM
Facility BIG MOSES Initials J

From: Roger Dhonau [mailto:RDhonau@se-env.com]
Sent: Wednesday, January 27, 2016 11:00 AM
To: Williams, Jerry <Jerry.Williams@wv.gov>
Subject: RE: Icon Midstream - Big Moses Liquids Management Facility

NON-CONFIDENTIAL

Jerry,
Thanks for the prompt initial review of the Icon application. In response to your questions/comments please note the following

1. I fully understand the concern regarding aggregation of the two facilities. I am pursuing additional justification for not aggregating from Icon on this matter and will get back to you as soon as I get a response.



WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF AIR QUALITY

601 57th Street, SE
Charleston, WV 25304
(304) 926-0475
www.wvdep.org/daq

**APPLICATION FOR NSR PERMIT
AND
TITLE V PERMIT REVISION
(OPTIONAL)**

PLEASE CHECK ALL THAT APPLY TO NSR (45CSR13) (IF KNOWN):

- CONSTRUCTION MODIFICATION RELOCATION
 CLASS I ADMINISTRATIVE UPDATE TEMPORARY
 CLASS II ADMINISTRATIVE UPDATE AFTER-THE-FACT

PLEASE CHECK TYPE OF 45CSR30 (TITLE V) REVISION (IF ANY):

- ADMINISTRATIVE AMENDMENT MINOR MODIFICATION
 SIGNIFICANT MODIFICATION

IF ANY BOX ABOVE IS CHECKED, INCLUDE TITLE V REVISION INFORMATION AS ATTACHMENT S TO THIS APPLICATION

FOR TITLE V FACILITIES ONLY: Please refer to "Title V Revision Guidance" in order to determine your Title V Revision options (Appendix A, "Title V Permit Revision Flowchart") and ability to operate with the changes requested in this Permit Application.

Section I. General

1. Name of applicant (as registered with the WV Secretary of State's Office): Icon Midstream Pipeline, LLC		2. Federal Employer ID No. (FEIN): 47-1115453	
3. Name of facility (if different from above): Big Moses Liquids Management Facility		4. The applicant is the: <input type="checkbox"/> OWNER <input type="checkbox"/> OPERATOR <input checked="" type="checkbox"/> BOTH	
5A. Applicant's mailing address: 75 Cross Winds Drive Bridgeport, WV 26330		5B. Facility's present physical address: None. Off of Big Moses Road near Alma, WV	
6. West Virginia Business Registration. Is the applicant a resident of the State of West Virginia? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO – If YES, provide a copy of the Certificate of Incorporation/Organization/Limited Partnership (one page) including any name change amendments or other Business Registration Certificate as Attachment A . – If NO, provide a copy of the Certificate of Authority/Authority of L.L.C./Registration (one page) including any name change amendments or other Business Certificate as Attachment A .			
7. If applicant is a subsidiary corporation, please provide the name of parent corporation: N/A			
8. Does the applicant own, lease, have an option to buy or otherwise have control of the proposed site? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO – If YES, please explain: Applicant has a lease agreement with the land owner for installation of the facility – If NO, you are not eligible for a permit for this source.			
9. Type of plant or facility (stationary source) to be constructed, modified, relocated, administratively updated or temporarily permitted (e.g., coal preparation plant, primary crusher, etc.): Natural Gas Liquids Management Facility		10. North American Industry Classification System (NAICS) code for the facility: 21112	
11A. DAQ Plant ID No. (for existing facilities only):		11B. List all current 45CSR13 and 45CSR30 (Title V) permit numbers associated with this process (for existing facilities only):	
All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.			

Williams, Jerry

From: Roger Dhonau <RDhonau@se-env.com>
Sent: Wednesday, January 27, 2016 11:00 AM
To: Williams, Jerry
Subject: RE: Icon Midstream - Big Moses Liquids Management Facility
Attachments: Corrected Application Page.pdf; Corrected EU Table.pdf; CH10.0 Performance Spec Sheet - Rev3.pdf

Jerry,
Thanks for the prompt initial review of the Icon application. In response to your questions/comments please note the following

1. I fully understand the concern regarding aggregation of the two facilities. I am pursuing additional justification for not aggregating from Icon on this matter and will get back to you as soon as I get a response.
2. Attached please find a corrected first page of the application with what I believe is the correct NAICS Code.
3. Attached please find a corrected Emission Units Table. The combustor is rated at 10 MMBTU/Hr, not 62 MMBTU/Hr. I have attached the spec sheet for that unit as well. As demonstrated in the calculations, max loading to this combustor is expected to be 4.47 MMBTU/Hr. A 62 MMBTU/Hr unit would have been huge for this sort of facility !!
4. The Public notice was sent to the local paper for publication the same day the application was submitted. Unfortunately, it is a weekly paper and we just missed a publishing cycle. It is to be published today, so we should get the affidavit back early next week. I will FedEx to your attention the day we receive it.

Please feel free to contact me at your convenience with any additional comments or questions.

Roger

Roger A. Dhonau, PE, QEP
SE Technologies, LLC



TECHNOLOGIES
98 Vanadium Rd., Bldg. D
Bridgeville, PA 15017
412/221-1100, ext. 1628

ID # 095-00067
Reg 1213-3293
Company Icon Midstream
Facility Big Moses

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From: Williams, Jerry [mailto:Jerry.Williams@wv.gov]
Sent: Tuesday, January 26, 2016 8:42 AM
To: Roger Dhonau
Subject: Icon Midstream - Big Moses Liquids Management Facility

Roger,

NON-CONFIDENTIAL

Icon submitted R13-3293 and it was received on January 20, 2016. R13-3293 was submitted to install and operate a natural gas liquids facility at a co-located Jay-Bee Oil & Gas well pad. Upon initial review of the application, the following items need further clarification:

1. The permit application indicates that common control does not exist between Icon and Jay-Bee Oil & Gas. However, it appears that Shane Dowell (the Responsible Official) works for both companies. He signed this permit application and also one for Jay Bee several weeks ago. The facilities already possess the same two digit SIC code and are contiguous or adjacent. Additionally, the process description indicates that natural gas will be routed from the Icon facility to the inlet of the co-located Jay Bee facility to be compressed, dehydrated and injected into pipelines. Please elaborate on how these companies are not under common control, yet appear to have the same Responsible Official and the co-located Jay-Bee facility receives natural gas from Icon to process.
2. Item 9 of the permit application (Type of plant or facility) indicates that this is a natural gas well pad and production facility. However, the permit application indicates otherwise.
3. Please provide a manufacturer's data sheet for the enclosed combustor (EC-1). This sheet must indicate that the maximum design heat input (MDHI) of this unit is 62 MMBTU/hr.
4. Please provide the affidavit of publication for the Class I legal advertisement.

Thanks,
Jerry

Jerry Williams, P.E.
Engineer
WVDEP – Division of Air Quality
601 57th Street, SE
Charleston, WV 25304
(304) 926-0499 ext. 1223
jerry.williams@wv.gov



 Please consider the environment before printing this email.

Emission Units Table

(includes all emission units and air pollution control devices
that will be part of this permit application review, regardless of permitting status)

Emission Unit ID ¹	Emission Point ID ²	Emission Unit Description	Year Installed/ Modified	Design Capacity	Type ³ and Date of Change	Control Device ⁴
CE-1	1E	Flash Gas Compressor Engine (Arrow VR 260)	Upon Receipt of Permit	47 Hp	NEW	1C (NSCR)
CE-2	2E	VRU Compressor Engine (Cummins G8.3)	Upon Receipt of Permit	118 Hp	NEW	2C (NSCR)
HTR-1	3E	Line Heater	Upon Receipt of Permit	0.25 MMBTU/Hr	NEW	None
HTR-2	4E	Separator Heater	Upon Receipt of Permit	1.0 MMBTU/Hr	NEW	None
T01	5E/6E	Condensate Tank	Upon Receipt of Permit	210 BBL	NEW	VRU-1/EC-1
T02	5E/6E	Condensate Tank	Upon Receipt of Permit	210 BBL	NEW	VRU-1/EC-1
T03	5E/6E	Condensate Tank	Upon Receipt of Permit	210 BBL	NEW	VRU-1/EC-1
T04	5E/6E	Condensate Tank	Upon Receipt of Permit	210 BBL	NEW	VRU-1/EC-1
T05	5E/6E	Condensate Tank	Upon Receipt of Permit	210 BBL	NEW	VRU-1/EC-1
EC-1	6E	Enclosed Combustor	Upon Receipt of Permit	10 MMBTU/Hr	NEW	N/A
T06	7E	Produced Water Tank	Upon Receipt of Permit	210 BBL	NEW	None
TL-1	6E	Condensate Truck Loading	Upon Receipt of Permit	1,050,000 Gallons/Yr.	NEW	EC-1
TL-2	8E	Produced Water Truck Loading	Upon Receipt of Permit	58,800 Gallons/Yr.	NEW	None
---	---	Fugitive VOC Emissions – Fittings and Connections	Upon Receipt of Permit	N/A	NEW	None
---	---	Haul Roads	Upon Receipt of Permit	1 Truck per day max.	NEW	None

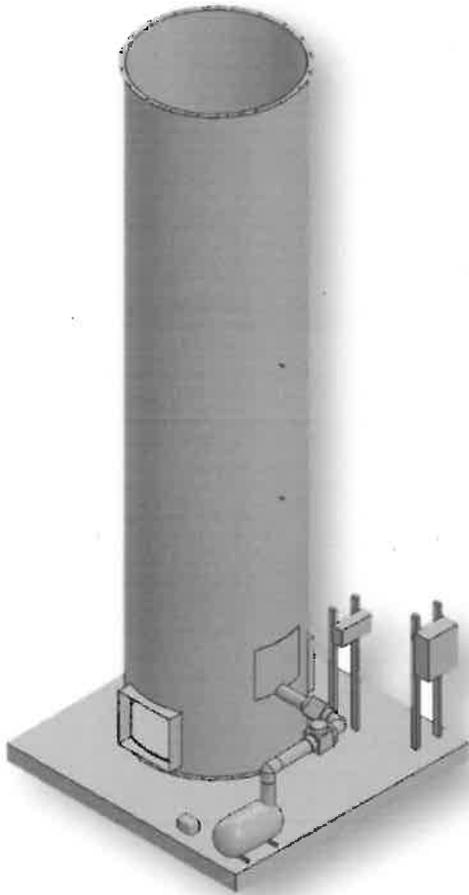
¹ For Emission Units (or Sources) use the following numbering system: 1S, 2S, 3S,... or other appropriate designation.

² For Emission Points use the following numbering system: 1E, 2E, 3E, ... or other appropriate designation.

³ New, modification, removal

⁴ For Control Devices use the following numbering system: 1C, 2C, 3C,... or other appropriate designation.

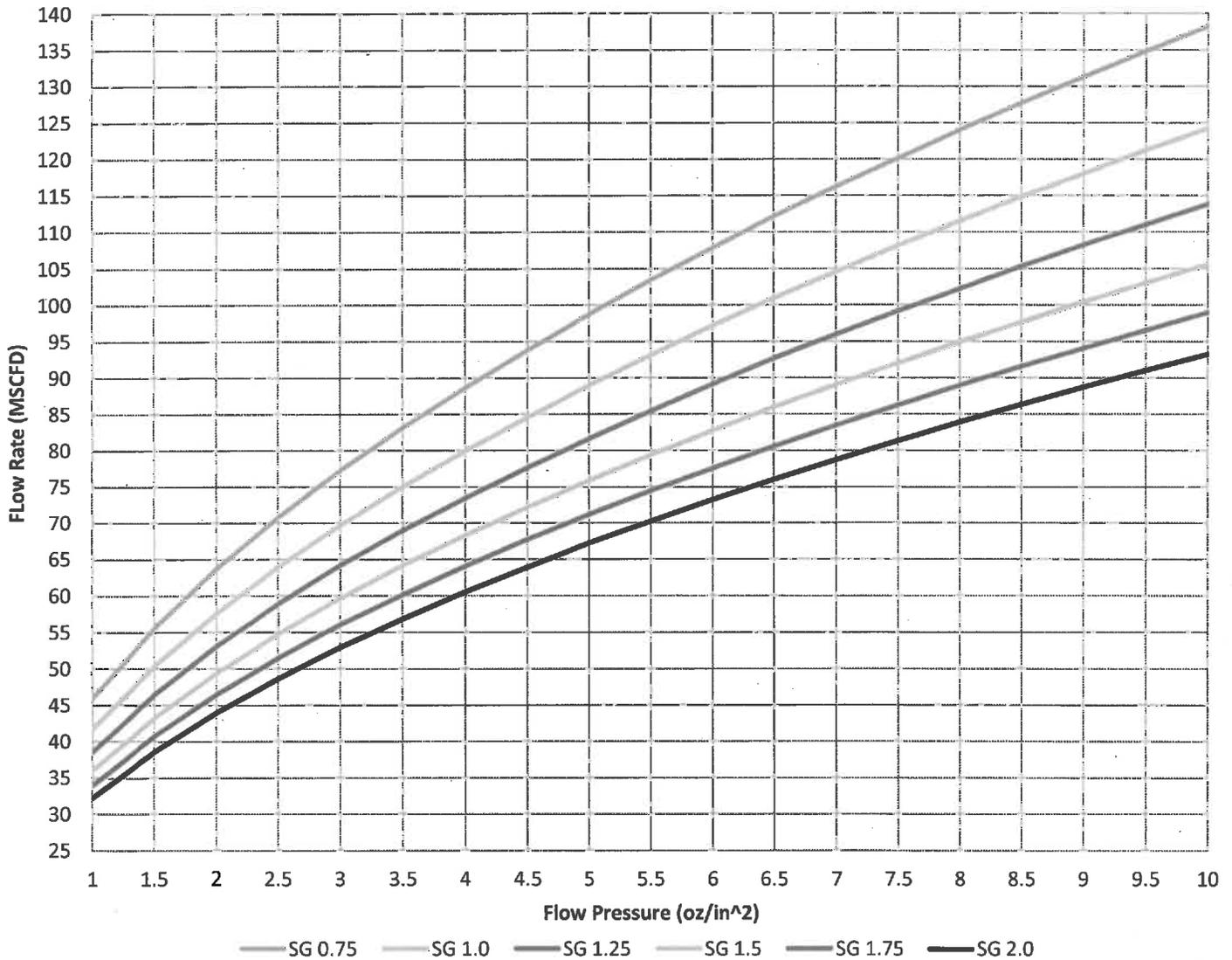
With the fairly recent publication of the NSPS OOOO emission standard, all storage tank facilities constructed on or after August 23, 2011 will be allowed to emit 6 Tons or less of VOC's per year. This regulation not only forces companies to monitor and control their emissions, but it also forces the *means* of emission monitoring and controlling to be more reliable and exact. In response to such a stringent protocol, HY-BON Engineering Company is pleased to offer the **CH10.0** enclosed Vapor Combustor Unit (VCU). Built upon a foundation of 60+ years' experience with tank vapors, the VCU is the solution for reducing residual tank vapor emissions when a Vapor Recovery Unit (VRU) is not sufficient or a viable option.



- EPA 40 CFR 60, Quad O Compliant
- Completely Enclosed Combustion
- 99.99% Destruction Efficiency
- Fully Automated System
- Output Operational Data via Thumb Drive
- Capable of SCADA Integration

GENERAL PROPERTIES	
TYPE	Enclosed Tank Battery Flare
AMBIENT TEMPERATURE	-20 °F to +100 °F
PILOT FUEL REQUIREMENTS	Propane or Site Gas (@.5psi of natural gas = 13.3 SCFM @.5psi of propane = 12.5 SCFM)
BURNER SIZE	10.0 million BTU/hr
INLET PRESSURE REQUIREMENTS	Minimum 0.5 oz/in ² (~1.0 inches w.c.)
TURN DOWN RATIO	5:1
DESTRUCTION EFFICIENCY	99.99% DRE
MECHANICAL PROPERTIES	
DESIGN WIND SPEED	100 MPH
AMBIENT TEMPERATURE	-20 °F to +120 °F
ELECTRICAL AREA CLASSIFICATION	General Area Classification (Non-Hazardous)
ELEVATION	up to 3,000ft ASL
PROCESS PROPERTIES	
SMOKELESS CAPACITY	100%
OPERATING TEMPERATURE	800 °F to 2000 °F (1500 °F Nominal)
UTILITIES	
PILOT GAS	Process Gas
ELECTRICITY	1 Phase, 60 Hz, 120V/10A
SOLAR PANEL OPTION AVAILABLE	YES

CH10.0: Flow Rate vs Flow Pressure with Corresponding Specific Gravity



Williams, Jerry

From: Ward, Beth A
Sent: Tuesday, January 26, 2016 11:36 AM
To: Williams, Jerry
Subject: ICON MIDSTREAM PIPELINE LLC PERMIT APPLICATION FEE

This is the receipt for payment received from:

ICON MIDSTREAM PIPELINE LLC, BIG MOSES FACILITY, CHECK NUMBER 8882, CHECK DATE 01/18/2016, 2000.00
R13-3293 ID# 095-00067

OASIS Deposit CR 1600079968

Thank You!

Beth Ward

**WV DEPARTMENT OF ENVIRONMENTAL PROTECTION
BTO FISCAL
601 57TH STREET SE
CHARLESTON, WV 25304
(304) 926-0499 EXT 1846
beth.a.ward@wv.gov**

NON-CONFIDENTIAL

Adkins, Sandra K

From: Adkins, Sandra K
Sent: Thursday, January 21, 2016 3:00 PM
To: 'iconmidstream@gmail.com'; 'Roger Dhonau'
Cc: McKeone, Beverly D; Williams, Jerry
Subject: WV DAQ Permit Application Status for ICON MIDSTREAM PIPELINE, LLC; Big Moses Facility

**RE: Application Status
ICON MIDSTREAM PIPELINE, LLC
Big Moses Facility
Plant ID No. 095-00067
Application No. R13-3293**

Mr. Dowell,

Your application for a construction permit for the Big Moses Liquids Management Facility was received by this Division on January 20, 2016, and was assigned to Jerry Williams. The following item was not included in the initial application submittal:

Original affidavit for Class I legal advertisement not submitted.

This item is necessary for the assigned permit writer to continue the 30-day completeness review.

Within 30 days, you should receive a letter from Jerry stating the status of the permit application and, if complete, given an estimated time frame for the agency's final action on the permit.

Any determination of completeness shall not relieve the permit applicant of the requirement to subsequently submit, in a timely manner, any additional or corrected information deemed necessary for a final permit decision.

Should you have any questions, please contact the assigned engineer, Jerry Williams, at 304-926-0499, extension 1258.

095-00067
13-3293

New ID#
R13#

Construction
Jing

**45CSR13 Administrative Update, Construction, Modification, Relocation,
Temporary Permit or General Permit Registration Incomplete Application**

A complete application is demonstrated when all of the information required below is properly prepared, completed and attached. The items listed below are required information which must be submitted with a 45CSR13 permit application. Any submittal will be considered incomplete if the required information is not included. The applicant must submit a complete application in order to receive a 45CSR13 permit.

- Class I legal advertisement not published in a newspaper certified to accept legal advertisements and original affidavit submitted.
- Application fee AND/OR additional application fees not included:
 - \$250 Class I General Permit
 - \$300 Class II Administrative Update
 - \$1,000 Construction, Modification, Relocation or Temporary Permit
 - \$500 Class II General Permit
 - \$1,000 NSPS
 - \$2,500 NESHAP
 - \$2,500 45CSR27 Pollutant
 - \$5,000 Major Modification
 - \$10,000 Major Construction
- Original and two (2) copies of the application not submitted.
- File organization – application pages are not numbered or in correct order, application is not bound in some way, etc.
- Confidential Business Information is not properly identified.
- General application forms not completed and signed by a responsible official.
- Authority of Corporation form not included – required if application is signed by someone other than a responsible official.
- Applicant is not registered with the West Virginia Secretary of State's Office.
- Copy of current Business Registration Certificate not included.
- Process description, including equipment and emission point identification numbers, not submitted.
- Process flow diagram, including equipment and emission point identification numbers, not submitted.
- Plot plan, including equipment and emission point identification numbers, not submitted.
- Applicable technical forms not completed and submitted:
 - Emission Point Data Summary Sheets
 - Air Pollution Control Device Sheets
 - Emission Unit Data Sheets
 - Equipment List Form
- Emission calculations not included – emission factors, references, source identification numbers, etc.
- Electronic submittal diskette not included.