



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
AIR QUALITY PROGRAM

PLAN APPROVAL

Issue Date: October 4, 2012

Effective Date: May 14, 2026

Revision Date: May 14, 2026

Expiration Date: November 28, 2026

Revision Type: Extension

In accordance with the provisions of the Air Pollution Control Act, the Act of January 8, 1960, P.L. 2119, as amended, and 25 Pa. Code Chapter 127, the Owner, [and Operator if noted] (hereinafter referred to as permittee) identified below is authorized by the Department of Environmental Protection (Department) to construct, install, modify or reactivate the air emission source(s) more fully described in the site inventory list. This Facility is subject to all terms and conditions specified in this plan approval. Nothing in this plan approval relieves the permittee from its obligations to comply with all applicable Federal, State and Local laws and regulations.

The regulatory or statutory authority for each plan approval condition is set forth in brackets. All terms and conditions in this permit are federally enforceable unless otherwise designated as "State-Only" requirements.

Plan Approval No. 63-00936F

Federal Tax Id - Plant Code: 30-0528059-1

Owner Information

Name: MARKWEST LIBERTY MIDSTREAM & RESOURCES LLC

Mailing Address: 4600 JBARRY CT
CANONSBURG, PA 15317-5854

Plant Information

Plant: MARKWEST LIBERTY MIDSTREAM & RESOURCES/HOUSTON GAS PLT

Location: 63 Washington County 63921 Chartiers Township

SIC Code: 1321 Mining - Natural Gas Liquids

Responsible Official

Name: ROBERT W SHOUGH

Title: OPS DIR

Phone: (304) 840 - 5681

Email: rwshough@marathonpetroleum.com

Plan Approval Contact Person

Name: NATHAN MWHELDON

Title: SR MGR AIR PROGRAM

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[Signature] _____

MARK R. GOROG, P.E., ENVIRONMENTAL PROGRAM MANAGER, SOUTHWEST REGION



Plan Approval Description

This Plan Approval is to allow the construction and temporary operation of a deethanizer, depropanizer, hot oil heater, regenerative heater, and rail yard vapor recovery system; as well as an increase of truck and rail load-out throughputs by MarkWest Liberty Midstream and Resources, LLC at the Houston Gas Processing Plant located in Chartiers Township, Washington County. It has been modified effective July 8, 2013, due to start up of the deethanizer. Sources and requirements from PA-63-00936A, PA-63-00936B, PA-63-00936C, PA-63-00936D, and PA-63-00936E have been consolidated into this authorization as all approved sources have been constructed and are in the period of temporary operation. Plan Approval modified effective June 19, 2015, to allow temporary operation of Houston 4, remove the Houston 2 hot oil heater, and adopt the requirements of 40 CFR Part 60, Subpart OOOO for the entire facility.



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Note: These same sub-sections are repeated for each source!

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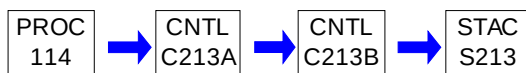
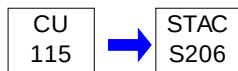
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**SECTION A. Plan Approval Inventory List**

Source ID	Source Name	Capacity/Throughput	Fuel/Material
040	HOUSTON 4 REGENERATIVE HEATER	6.590 MMBTU/HR	
115	HOT OIL HEATER	113.200 MMBTU/HR	
110	PROPANE REMOVAL SYSTEM VENTING		
111	NATURAL GAS PROCESSING SYSTEM VENTING		
112	SOURCES ADDED BY PA-C - VENTING	N/A	
113	FRACTIONATOR TOWER AND 148 MMBTU/HR PROCESS HEATER		
114	RAIL LOAD-OUT TERMINAL FUGITIVE		
116	WV DEPROPANIZER VENTING		
117	HOUSTON DEETHANIZER VENTING		
118	HOUSTON 4 VENTING		
C213A	VAPOR RECOVERY SYSTEM		
C213B	ENCLOSED FLARE		
S206	HOT OIL HEATER STACK		
S213	ENCLOSED FLARE STACK		

PERMIT MAPS

**SECTION B. General Plan Approval Requirements****#001 [25 Pa. Code § 121.1]****Definitions**

Words and terms that are not otherwise defined in this plan approval shall have the meanings set forth in Section 3 of the Air Pollution Control Act (35 P.S. § 4003) and 25 Pa. Code § 121.1.

#002 [25 Pa. Code § 127.12b (a) (b)]**Future Adoption of Requirements**

The issuance of this plan approval does not prevent the future adoption by the Department of any rules, regulations or standards, or the issuance of orders necessary to comply with the requirements of the Federal Clean Air Act or the Pennsylvania Air Pollution Control Act, or to achieve or maintain ambient air quality standards. The issuance of this plan approval shall not be construed to limit the Department's enforcement authority.

#003 [25 Pa. Code § 127.12b]**Plan Approval Temporary Operation**

This plan approval authorizes temporary operation of the source(s) covered by this plan approval provided the following conditions are met.

(a) When construction, installation, modification, or reactivation is being conducted, the permittee shall provide written notice to the Department of the completion of the activity approved by this plan approval and the permittee's intent to commence operation at least five (5) working days prior to the completion of said activity. The notice shall state when the activity will be completed and when the permittee expects to commence operation. When the activity involves multiple sources on different time schedules, notice is required for the commencement of operation of each source.

(b) Pursuant to 25 Pa. Code § 127.12b (d), temporary operation of the source(s) is authorized to facilitate the shakedown of sources and air cleaning devices, to permit operations pending the issuance of a permit under 25 Pa. Code Chapter 127, Subchapter F (relating to operating permits) or Subchapter G (relating to Title V operating permits) or to permit the evaluation of the air contaminant aspects of the source.

(c) This plan approval authorizes a temporary operation period not to exceed 180 days from the date of commencement of operation, provided the Department receives notice from the permittee pursuant to paragraph (a), above.

(d) The permittee may request an extension of the 180-day shakedown period if further evaluation of the air contamination aspects of the source(s) is necessary. The request for an extension shall be submitted, in writing, to the Department at least 30 days prior to the end of the initial 180-day shakedown period and shall provide a description of the compliance status of the source, a detailed schedule for establishing compliance, and the reasons compliance has not been established. This temporary operation period will be valid for a limited time and may be extended for additional limited periods, each not to exceed 180 days.

(e) The notice submitted by the permittee pursuant to subpart (a) above, prior to the expiration of the plan approval, shall modify the plan approval expiration date on Page 1 of this plan approval. The new plan approval expiration date shall be 180 days from the date of commencement of operation.

#004 [25 Pa. Code § 127.12(a) (10)]**Content of Applications**

The permittee shall maintain and operate the sources and associated air cleaning devices in accordance with good engineering practice as described in the plan approval application submitted to the Department.

#005 [25 Pa. Code §§ 127.12(c) and (d) & 35 P.S. § 4013.2]**Public Records and Confidential Information**

(a) The records, reports or information obtained by the Department or referred to at public hearings shall be available to the public, except as provided in paragraph (b) of this condition.

(b) Upon cause shown by the permittee that the records, reports or information, or a particular portion thereof, but not emission data, to which the Department has access under the act, if made public, would divulge production or sales figures or methods, processes or production unique to that person or would otherwise tend to affect adversely the

**SECTION B. General Plan Approval Requirements**

competitive position of that person by revealing trade secrets, including intellectual property rights, the Department will consider the record, report or information, or particular portion thereof confidential in the administration of the act. The Department will implement this section consistent with sections 112(d) and 114(c) of the Clean Air Act (42 U.S.C.A. § 7412(d) and 7414(c)). Nothing in this section prevents disclosure of the report, record or information to Federal, State or local representatives as necessary for purposes of administration of Federal, State or local air pollution control laws, or when relevant in a proceeding under the act.

#006 [25 Pa. Code § 127.12b]**Plan Approval Terms and Conditions**

[Additional authority for this condition is derived from 25 Pa. Code Section 127.13]

(a) This plan approval will be valid for a limited time, as specified by the expiration date contained on Page 1 of this plan approval. Except as provided in § 127.11a and 127.215 (relating to reactivation of sources; and reactivation), at the end of the time, if the construction, modification, reactivation or installation has not been completed, a new plan approval application or an extension of the previous approval will be required.

(b) If construction has commenced, but cannot be completed before the expiration of this plan approval, an extension of the plan approval must be obtained to continue construction. To allow adequate time for departmental action, a request for the extension shall be postmarked at least thirty (30) days prior to the expiration date. The request for an extension shall include the following:

- (i) A justification for the extension,
- (ii) A schedule for the completion of the construction

If construction has not commenced before the expiration of this plan approval, then a new plan approval application must be submitted and approval obtained before construction can commence.

(c) If the construction, modification or installation is not commenced within 18 months of the issuance of this plan approval or if there is more than an 18-month lapse in construction, modification or installation, a new plan approval application that meets the requirements of 25 Pa. Code Chapter 127, Subchapter B (related to plan approval requirements), Subchapter D (related to prevention of significant deterioration of air quality), and Subchapter E (related to new source review) shall be submitted. The Department may extend the 18-month period upon a satisfactory showing that an extension is justified.

#007 [25 Pa. Code § 127.32]**Transfer of Plan Approvals**

(a) This plan approval may not be transferred from one person to another except when a change of ownership is demonstrated to the satisfaction of the Department and the Department approves the transfer of the plan approval in writing.

(b) Section 127.12a (relating to compliance review) applies to a request for transfer of a plan approval. A compliance review form shall accompany the request.

(c) This plan approval is valid only for the specific source and the specific location of the source as described in the application.

#008 [25 Pa. Code § 127.12(a)(4) & 35 P.S. § 4008 & § 114 of the CAA]**Inspection and Entry**

(a) Pursuant to 35 P.S. § 4008, no person shall hinder, obstruct, prevent or interfere with the Department or its personnel in the performance of any duty authorized under the Air Pollution Control Act.

(b) The permittee shall also allow the Department to have access at reasonable times to said sources and associated air cleaning devices with such measuring and recording equipment, including equipment recording visual observations, as the Department deems necessary and proper for performing its duties and for the effective enforcement of the Air Pollution Control Act and regulations adopted under the act.

**SECTION B. General Plan Approval Requirements**

(c) Nothing in this plan approval condition shall limit the ability of the Environmental Protection Agency to inspect or enter the premises of the permittee in accordance with Section 114 or other applicable provisions of the Clean Air Act.

#009 [25 Pa. Code 127.13a]**Plan Approval Changes for Cause**

This plan approval may be terminated, modified, suspended or revoked and reissued if one or more of the following applies:

- (a) The permittee constructs or operates the source subject to the plan approval in violation of the act, the Clean Air Act, the regulations promulgated under the act or the Clean Air Act, a plan approval or permit or in a manner that causes air pollution.
- (b) The permittee fails to properly or adequately maintain or repair an air pollution control device or equipment attached to or otherwise made a part of the source.
- (c) The permittee fails to submit a report required by this plan approval.
- (d) The Environmental Protection Agency determines that this plan approval is not in compliance with the Clean Air Act or the regulations thereunder.

#010 [25 Pa. Code §§ 121.9 & 127.216]**Circumvention**

- (a) The permittee, or any other person, may not circumvent the new source review requirements of 25 Pa. Code Chapter 127, Subchapter E by causing or allowing a pattern of ownership or development, including the phasing, staging, delaying or engaging in incremental construction, over a geographic area of a facility which, except for the pattern of ownership or development, would otherwise require a permit or submission of a plan approval application.
- (b) No person may permit the use of a device, stack height which exceeds good engineering practice stack height, dispersion technique or other technique which, without resulting in reduction of the total amount of air contaminants emitted, conceals or dilutes an emission of air contaminants which would otherwise be in violation of this plan approval, the Air Pollution Control Act or the regulations promulgated thereunder, except that with prior approval of the Department, the device or technique may be used for control of malodors.

#011 [25 Pa. Code § 127.12c]**Submissions**

Reports, test data, monitoring data, notifications shall be submitted to the:

Regional Air Program Manager
PA Department of Environmental Protection
(At the address given on the plan approval transmittal letter or otherwise notified)

#012 [25 Pa. Code § 127.12(a)(9) & 40 CFR Part 68]**Risk Management**

- (a) If required by Section 112(r) of the Clean Air Act, the permittee shall develop and implement an accidental release program consistent with requirements of the Clean Air Act, 40 CFR Part 68 (relating to chemical accident prevention provisions) and the Federal Chemical Safety Information, Site Security and Fuels Regulatory Relief Act (P.L. 106-40).
- (b) The permittee shall prepare and implement a Risk Management Plan (RMP) which meets the requirements of Section 112(r) of the Clean Air Act, 40 CFR Part 68 and the Federal Chemical Safety Information, Site Security and Fuels Regulatory Relief Act when a regulated substance listed in 40 CFR § 68.130 is present in a process in more than the listed threshold quantity at the facility. The permittee shall submit the RMP to the Environmental Protection Agency according to the following schedule and requirements:
 - (1) The permittee shall submit the first RMP to a central point specified by the Environmental Protection Agency no later than the latest of the following:

**SECTION B. General Plan Approval Requirements**

- (i) Three years after the date on which a regulated substance is first listed under § 68.130; or,
- (ii) The date on which a regulated substance is first present above a threshold quantity in a process.

(2) The permittee shall submit any additional relevant information requested by the Department or the Environmental Protection Agency concerning the RMP and shall make subsequent submissions of RMPs in accordance with 40 CFR § 68.190.

(3) The permittee shall certify that the RMP is accurate and complete in accordance with the requirements of 40 CFR Part 68, including a checklist addressing the required elements of a complete RMP.

(c) As used in this plan approval condition, the term "process" shall be as defined in 40 CFR § 68.3. The term "process" means any activity involving a regulated substance including any use, storage, manufacturing, handling, or on-site movement of such substances or any combination of these activities. For purposes of this definition, any group of vessels that are interconnected, or separate vessels that are located such that a regulated substance could be involved in a potential release, shall be considered a single process.

#013 [25 Pa. Code § 121.7]**Prohibition of Air Pollution**

No person may permit air pollution as that term is defined in the Air Pollution Control Act (35 P.S. §§ 4001-4015).

#014 [25 Pa. Code § 127.25]**Compliance Requirement**

A person may not cause or permit the operation of a source subject to § 127.11 (relating to plan approval requirements), unless the source and air cleaning devices identified in the application for the plan approval and the plan approval issued to the source, are operated and maintained in accordance with specifications in the application and conditions in the plan approval issued by the Department. A person may not cause or permit the operation of an air contamination source subject to this chapter in a manner inconsistent with good operating practices.



SECTION C. Site Level Plan Approval Requirements

I. RESTRICTIONS.

Emission Restriction(s).

001 [25 Pa. Code §123.1]

Prohibition of certain fugitive emissions

(a) No person may permit the emission into the outdoor atmosphere of fugitive air contaminant from a source other than the following:

(1) Construction or demolition of buildings or structures.

(2) Grading, paving and maintenance of roads and streets.

(3) Use of roads and streets. Emissions from material in or on trucks, railroad cars and other vehicular equipment are not considered as emissions from use of roads and streets.

(4) Clearing of land.

(5) Stockpiling of materials.

(6) Open burning operations.

(7) N/A

(8) N/A

(9) Sources and classes of sources other than those identified in paragraphs (1)-(8), for which the operator has obtained a determination from the Department that fugitive emissions from the source, after appropriate control, meet the following requirements:

(i) the emissions are of minor significance with respect to causing air pollution; and

(ii) the emissions are not preventing or interfering with the attainment or maintenance of any ambient air quality standard.

(b) An application form for requesting a determination under either subsection (a)(9) or 129.15(c) is available from the Department. In reviewing these applications, the Department may require the applicant to supply information including, but not limited to, a description of proposed control measures, characteristics of emissions, quantity of emissions, and ambient air quality data and analysis showing the impact of the source on ambient air quality. The applicant shall be required to demonstrate that the requirements of subsections (a)(9) and (c) and 123.2 (relating to fugitive particulate matter) or of the requirements of 129.15(c) have been satisfied. Upon such demonstration, the Department will issue a determination, in writing, either as an operating permit condition, for those sources subject to permit requirements under the act, or as an order containing appropriate conditions and limitations.

(c) A person responsible for any source specified in subsections (a)(1) -- (7) or (9) shall take all reasonable actions to prevent particulate matter from becoming airborne. These actions shall include, but not be limited to, the following:

(1) Use, where possible, of water or chemicals for control of dust in the demolition of buildings or structures, construction operations, the grading of roads, or the clearing of land.

(2) Application of asphalt, oil, water or suitable chemicals on dirt roads, material stockpiles and other surfaces which may give rise to airborne dusts.

(3) Paving and maintenance of roadways.

(4) Prompt removal of earth or other material from paved streets onto which earth or other material has been transported by trucking or earth moving equipment, erosion by water, or other means.

(d) N/A

**SECTION C. Site Level Plan Approval Requirements****# 002 [25 Pa. Code §123.13]****Processes**

Prohibited emissions. No person may permit the emission into the outdoor atmosphere of particulate matter from any process in a manner that the concentration of particulate matter in the effluent gas exceeds 0.04 grains per dry standard cubic foot, when the effluent gas volume is less than 150,000 dry standard cubic feet per minute.

003 [25 Pa. Code §123.2]**Fugitive particulate matter**

A person may not permit fugitive particulate matter to be emitted into the outdoor atmosphere from a source specified in PA Code Title 25, Section 123.1(a)(1) -- (9) (relating to prohibition of certain fugitive emissions) if such emissions are visible at the point the emissions pass outside the person's property.

004 [25 Pa. Code §123.31]**Limitations**

The Owner/Operator may not permit the emission into the outdoor atmosphere of any malodorous air contaminants from any source in such a manner that the malodors are detectable outside of the property of the Facility.

005 [25 Pa. Code §123.41]**Limitations**

A person may not permit the emission into the outdoor atmosphere of visible air contaminants in such a manner that the opacity of the emission is either of the following:

- (1) Equal to or greater than 20% for a period or periods aggregating more than three minutes in any 1 hour.
- (2) Equal to or greater than 60% at any time.

006 [25 Pa. Code §123.42]**Exceptions**

The limitations of 123.41 (relating to limitations) shall not apply to a visible emission in any of the following instances:

- (1) when the presence of uncombined water is the only reason for failure of the emission to meet the limitations.
- (2) When the emission results from the operation of equipment used solely to train and test persons in observing the opacity of visible emissions.
- (3) When the emission results from sources specified in 123.1(a)(1) -- (9) (relating to prohibition of certain fugitive emissions).

007 [25 Pa. Code §123.43]**Measuring techniques**

Visible emissions may be measured using either of the following:

- (1) A device approved by the Department and maintained to provide accurate opacity measurements.
- (2) Observers, trained and qualified to measure plume opacity with the naked eye or with the aid of any devices approved by the Department.

**SECTION C. Site Level Plan Approval Requirements****# 008 [25 Pa. Code §129.14]****Open burning operations**

Outside of air basins. No person may permit the open burning of material in an area outside of air basins in a manner that:

(1) The emissions are visible, at any time, at the point such emissions pass outside the property of the person on whose land the open burning is being conducted.

(2) Malodorous air contaminants from the open burning are detectable outside the property of the person on whose land the open burning is being conducted.

(3) The emissions interfere with the reasonable enjoyment of life or property.

(4) The emissions cause damage to vegetation or property.

(5) The emissions are or may be deleterious to human or animal health.

(c) Exceptions: The requirements of subsections (a) and (b) do not apply where the open burning operations result from:

(1) A fire set to prevent or abate a fire hazard, when approved by the Department and set by or under the supervision of a public officer.

(2) A fire set for the purpose of instructing personnel in fire fighting, when approved by the Department.

(3) A fire set for the prevention and control of disease or pests, when approved by the Department.

(4) A fire set in conjunction with the production of agricultural commodities in their unmanufactured state on the premises of the farm operation.

(5) A fire set for the purpose of burning domestic refuse, when the fire is on the premises of a structure occupied solely as a dwelling by two families or less and when the refuse results from the normal occupancy of such structure.

(6) A fire set solely for recreational or ceremonial purposes.

(7) A fire set solely for cooking food.

(d) Clearing and grubbing wastes. The following is applicable to clearing and grubbing wastes:

(1) As used in this subsection the following terms shall have the following meanings:

Air curtain destructor -- A mechanical device which forcefully projects a curtain of air across a pit in which open burning is being conducted so that combustion efficiency is increased and smoke and other particulate matter are contained.

Clearing and grubbing wastes -- Trees, shrubs, and other native vegetation which are cleared from land during or prior to the process of construction. The term does not include demolition wastes and dirt laden roots.

(2) Subsection (a) notwithstanding, clearing and grubbing wastes may be burned in a basin subject to the following requirements:

(i) Air curtain destructors shall be used when burning clearing and grubbing wastes.

(ii) Each proposed use of air curtain destructors shall be reviewed and approved by the Department in writing with respect to equipment arrangement, design and existing environmental conditions prior to commencement of burning. Proposals approved under this subparagraph need not obtain plan approval or operating permits under Chapter 127 (relating to construction modification, reactivation and operation of sources).

**SECTION C. Site Level Plan Approval Requirements**

(iii) Approval for use of an air curtain destructor at one site may be granted for a specified period not to exceed 3 months, but may be extended for additional limited periods upon further approval by the Department.

(iv) The Department reserves the right to rescind approval granted if a determination by the Department indicates that an air pollution problem exists.

(3) Subsection (b) notwithstanding clearing and grubbing wastes may be burned outside of an air basin, subject to the following limitations:

(i) Upon receipt of a complaint or determination by the Department that an air pollution problem exists, the Department may order that the open burning cease or comply with subsection (b) of this section.

(ii) Authorization for open burning under this paragraph does not apply to clearing and grubbing wastes transported from an air basin for disposal outside of an air basin.

(4) During an air pollution episode, open burning is limited by Chapter 137 (relating to air pollution episodes) and shall cease as specified in such chapter.

Throughput Restriction(s).**# 009 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

Throughputs for the truck load-out racks shall not exceed the following during any consecutive 12-month period:

- a. Propane – 75 million gallons
- b. Iso-butane and N-butane combined – 75 million gallons
- c. Natural Gasoline – 65 million gallons

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

III. MONITORING REQUIREMENTS.**# 010 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

The Owner/Operator shall conduct a daily facility-wide inspection during daylight hours while the sources are in operation for the presence of any visible stack emissions; equipment leaks (by audio, visual, or olfactory means) potentially resulting in VOC emissions; and also any fugitive emissions or malodors at the property line. If visible stack emissions, equipment leaks potentially resulting in VOC emissions, fugitive emissions, or malodors are apparent, the Owner/Operator shall take corrective action. Records of each inspection shall be maintained on site and at the minimum include the date, time, name and title of the observer, along with any corrective action taken as a result.

011 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

The permittee shall at a minimum, on a quarterly basis, sample and perform a natural gas fractional analysis on the inlet natural gas to the facility. The frequency of gas analysis may be altered only with the Department's prior written approval.

IV. RECORDKEEPING REQUIREMENTS.**# 012 [25 Pa. Code §135.5]****Recordkeeping**

The permittee shall maintain comprehensive, accurate records which, at a minimum, shall include:

- a. Monthly hours of operation for each air contamination source and air cleaning device authorized under this plan

**SECTION C. Site Level Plan Approval Requirements**

approval;

b. Monthly fuel consumption for each process heater authorized under this plan approval;

c. Monthly and rolling 12-month totals of VOC inlet to the rail load-out flare;

d. Daily and rolling 12-month totals (in MMscf and gallons) of natural gas and natural gas liquids delivered to the plant.

e. Daily and rolling 12-month totals (in gallons) of each natural gas liquid product loaded out by rail from the plant (includes propane, n-butane, iso-butane, and natural gasoline);

f. Daily and rolling 12-month totals (in gallons) of each natural gas liquid product loaded out by truck from the plant (includes propane, n-butane, iso-butane, and natural gasoline);

g. Records of daily facility-wide inspection for visible stack emissions, equipment leaks, and fugitive emissions or malodors at the property line including the date, time, name and title of the observer, along with any corrective action taken as a result;

h. Copies of the manufacturer's recommended maintenance schedule for all air contamination sources and air cleaning devices authorized under this plan approval including the hot oil heater burners and railyard vapor recovery system;

i. Records of any maintenance conducted on air contamination sources and air cleaning devices authorized under this plan approval including the hot oil heater burners and vapor recovery system;

j. Records of the most recent annual leak test performed on the natural gasoline railcar storage tanks, and;

k. Records of a natural gasoline analysis performed at a minimum of once annually on the natural gasoline produced at the Houston Gas Plant. This analysis must include the vapor pressure and average molecular weight of the liquid.

l. Records of the natural gas fractional analysis performed quarterly, at a minimum, on the inlet natural gas to the facility.

m. Facility-wide emissions on a 12-month rolling basis for NO_x, CO, SO_x, PM₁₀, PM_{2.5}, VOC, any individual HAP, total HAPs, and CO₂e.

V. REPORTING REQUIREMENTS.**# 013 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

The Owner/Operator of each stationary source emitting criteria pollutants (including but not limited to NO_x, CO, VOC, SO_x, PM₁₀, and PM_{2.5}), HAP, greenhouse gases (GHG) in the form of CO₂ equivalent (CO₂e), and GHG on a mass-basis shall provide the Department with a statement, in a form as the Department may prescribe, for classes or categories of sources, showing the actual emissions of criteria pollutants, HAP (per the Department's Emissions Inventory Reporting Instructions), GHG in the form of CO₂e, and GHG on a mass-basis from that source for each reporting period. A description of the method used to calculate the emissions and the time period over which the calculation is based shall be included. The statement shall also contain a certification by a company officer or the plant manager that the information contained in the statement is accurate.

014 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

Malfunction reporting shall be conducted as follows:

a. The Owner/Operator shall report to the Department each malfunction that occurs at this Facility. For purposes of this condition, a malfunction means any failure to operate air pollution control equipment and/or process equipment in a normal or unusual manner, consistent with good operating practices and the conditions of this authorization.

b. When the malfunction may immediately impact public health and safety or the environment, or when it is reasonable to

**SECTION C. Site Level Plan Approval Requirements**

believe that the malfunction may result in citizen complaints, the notification shall be made to the Department by telephone no later than one hour after discovery of the incident. The telephone number in subpart (f), below, shall be used to report the malfunction. Examples of malfunctions that may result in citizen complaints include, but are not limited to: unusually large dust plumes, heavy smoke, or a spill or release that results in a malodor that is detectable outside the property of the person on whose land the source is being operated.

c. The notice shall describe the following:

- i. Name and location of the facility;
- ii. Nature and cause of the malfunction;
- iii. Time when the malfunction or breakdown was first observed;
- iv. Expected duration of excess emissions and the malfunction; and
- v. Estimated rate of emissions.

d. The Owner/Operator shall immediately notify the Department by telephone when corrective measures have been accomplished. The telephone number in subpart (f), below, shall be used to report the completion of corrective measures.

e. Malfunctions that do not appear to be likely to pose a danger to public health and safety or the environment or result in citizen complaints shall be reported within 24 hours or on the next business day. The telephone number in subpart (f), below, shall be used to report the malfunction.

f. Malfunctions shall be reported to the Department at the following address and telephone number:

PA DEP
Office of Air Quality
400 Waterfront Drive
Pittsburgh, PA 15222-4745
(412) 442-4000

015 [25 Pa. Code §135.3]**Reporting**

Annual emission reporting shall be conducted as follows:

a. The Owner/Operator shall submit by March 1 of each year, a source report for the preceding calendar year. The report shall include information for all previously reported sources, new sources which were first operated during the preceding calendar year, and sources modified during the same period which were not previously reported.

b. A person who received initial notification by the Department that a source report is necessary shall submit an initial source report within 60 days after receiving the notification or by March 1 of the year following the year for which the report is required, whichever is later.

c. A source Owner/Operator may request an extension of time from the Department for the filing of a source report, and the Department may grant the extension for reasonable cause.

016 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4]**Subpart A - General Provisions****Address.**

The Facility is subject to New Source Performance Standards including 40 CFR Part 60 Subpart KKK and Subpart OOOO. In accordance with 40 CFR §60.4, copies of all requests, reports, applications, submittals and other communications regarding natural gas liquids extraction and fractionation units shall be forwarded to both EPA and the Department at the addresses listed below unless otherwise noted.

Director	PA DEP
Air Protection Section	Air Quality Program
Mail Code 3AP00	400 Waterfront Drive
US EPA, Region III	Pittsburgh, PA 15222-4745

**SECTION C. Site Level Plan Approval Requirements**

1650 Arch Street
Philadelphia, PA 19101-2029

VI. WORK PRACTICE REQUIREMENTS.**# 017 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

All air contamination sources and controls authorized under this Plan Approval shall be operated per the manufacturer's specifications and maintained according to the manufacturer's maintenance schedule.

VII. ADDITIONAL REQUIREMENTS.**# 018 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

This Plan Approval is to allow the construction and temporary operation of a deethanizer, depropanizer, hot oil heater, regenerative heater, and railyard vapor recovery system; as well as an increase of truck and rail load-out throughputs by MarkWest Liberty Midstream and Resources, LLC at the Houston Gas Processing Plant located in Chartiers Township, Washington County. It has been modified effective July 8, 2013, due to start up of the deethanizer. Sources and requirements from PA-63-00936A, PA-63-00936B, PA-63-00936C, PA-63-00936D, and PA-63-00936E have been consolidated into this authorization as all approved sources have been constructed and are in the period of temporary operation. Plan Approval modified effective June 19, 2015, to allow temporary operation of Houston 4, remove the Houston 2 hot oil heater, and adopt the requirements of 40 CFR Part 60, Subpart OOOO for the entire facility.

019 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

Consolidated air contamination sources and air cleaning devices authorized to continue temporary operation at this Facility under this Plan Approval are as follows:

1. "Houston 1" propane removal system.
2. "Houston 2" depropanizer, deethanizer, and process heater H-101.
3. "Houston 3" stabilizer with depropanizer, 148 MMBtu/hr hot oil heater, additional depropanizer, and 7.6 MMBtu/hr regenerator heater.
4. "Fractionator" debutanizer, deisobutanizer, 148 MMBtu/hr hot oil heater.
5. "Railyard" natural gas liquids rail load-out terminal; controlled by positive pressure loading and vapor collection with a John Zink (or equivalent) enclosed flare rated at 15.2 MMBtu/hr.
6. "Deethanizer" deethanizer, WV depropanizer, 113.2 MMBtu/hr hot oil heater.

020 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

Upon determination by the Owner/Operator that the source(s) covered by this Plan Approval are in compliance with all conditions of the Plan Approval the Owner/Operator shall contact the Department's reviewing engineer and schedule the Initial Operating Permit Inspection.

021 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

Upon completion of the Initial Operating Permit Inspection and determination by the Department that the source(s) covered by this Plan Approval are in compliance with all conditions of the Plan Approval, and at least 60 days prior to the expiration date of the Plan Approval, the Owner/Operator shall submit an amendment to a pending Operating Permit application or an application to amend an existing Operating Permit.

022 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

If, at any time, the Department has cause to believe that air contaminant emissions from the sources listed in this Plan Approval may be in excess of the limitations specified in, or established pursuant to this plan approval or the permittee's operating permit, the permittee may be required to conduct test methods and procedures deemed necessary by the Department to determine the actual emissions rate. Such testing shall be conducted in accordance with 25 Pa. Code Chapter 139, where applicable, and in accordance with any restrictions or limitations established by the Department at such time as it notifies the company that testing is required.

**SECTION C. Site Level Plan Approval Requirements****# 023 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

The Owner/Operator shall submit requests to extend the temporary operation period at least 15 days prior to the expiration date of any authorized period of temporary operation until the source(s), and modifications to existing source(s), covered by this authorization are incorporated into an issued Operating Permit for this facility.

024 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

Air contamination sources and air cleaning devices authorized at the Facility under this Plan Approval are as follows:

- a. One (1) Thomas Russell Co., "Houston" deethanizer, 355 MMscf/day.
- b. One (1) Thomas Russell Co., "WV" depropanizer, 355 MMscf/day.
- c. One (1) Optimized Process Furnaces, natural gas-fired hot oil heater, rated at 113.2 MMBtu/hr, utilizing ultra-low NOx burners (Callidus Ultra Blue Burners or equivalent), flue gas recirculation, and staged fuel combustion.
- d. One (1) Vapor recovery system; controlling vapor losses from rail load-out operations.
- e. One (1) Houston 4 Processing Plant, 200 MMscf/day.
- f. One (1) UOP Russell natural gas-fired regenerator heater, rated at 6.59 MMBtu/hr.

VIII. COMPLIANCE CERTIFICATION.

No additional compliance certifications exist except as provided in other sections of this plan approval including Section B (relating to Plan Approval General Requirements).

IX. COMPLIANCE SCHEDULE.

No compliance milestones exist.

**SECTION D. Source Level Plan Approval Requirements**

Source ID: 040

Source Name: HOUSTON 4 REGENERATIVE HEATER

Source Capacity/Throughput: 6.590 MMBTU/HR

I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

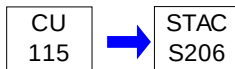
**SECTION D. Source Level Plan Approval Requirements**

Source ID: 115

Source Name: HOT OIL HEATER

Source Capacity/Throughput:

113.200 MMBTU/HR

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §123.11]****Combustion units**

The Owner/Operator may not permit the emission into the outdoor atmosphere of particulate matter from the hot oil heater in excess of 0.255 lb/MMBtu.

002 [25 Pa. Code §123.22]**Combustion units**

The Owner/Operator may not permit the emission into the outdoor atmosphere of sulfur oxides, expressed as SO₂, from a combustion unit in excess of 4.0 lb/MMBtu of heat input over any 1-hour period.

003 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

Emissions from the 113.2 MMBtu/hr hot oil heater shall be limited to less than or equal to the following:

At the maximum firing rate of the unit based upon the lower heating value of the fuel:

NO_x – 0.030 lb/MMBtu

At all other operating conditions:

NO_x – 3.40 lb/hr

004 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

The Owner/Operator may not permit the emission into the outdoor atmosphere of visible air contaminants from the natural gas-fired heaters in such a manner that the opacity of the emission is either of the following:

- Equal to or greater than 10% for a period or periods aggregating more than three minutes in any one hour.
- Equal to or greater than 30% at any time.

II. TESTING REQUIREMENTS.**# 005 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

Performance testing shall be required as follows:

- The Owner/Operator shall perform NO_x, CO, and VOC emission tests on the hot oil heater authorized under this Plan Approval according to the requirements of 25 Pa. Code Chapter 139. Emission testing is required within 180 days of startup of the process heater or alternative schedule as approved by the Department. EPA Method stack testing shall be conducted for the initial stack test.
- The Owner/Operator shall submit three copies of a pre-test protocol to the Department for review at least 45 days prior to the performance of any EPA reference method stack test. The Owner/Operator shall submit three copies of a one-time protocol to the Department for review for the use of a portable analyzer and may repeat portable analyzer testing without additional protocol approvals provided that the same method and equipment are used. All proposed performance test methods shall be identified in the pre-test protocol and approved by the Department prior to testing.
- The Owner/Operator shall notify the Regional Air Quality Manager at least 15 days prior to any performance test so that an



SECTION D. Source Level Plan Approval Requirements

observer may be present at the time of the test. Notification shall also be sent to the Division of Source Testing and Monitoring. Notification shall not be made without prior receipt of a protocol acceptance letter from the Department.

d. Pursuant to 25 Pa. Code Section 139.53(a)(2), a complete test report shall be submitted to the Department no later than 60 calendar days after completion of the on-site testing portion of an emission test program.

e. Pursuant to 25 Pa. Code Section 139.53(b) a complete test report shall include a summary of the emission results on the first page of the report indicating if each pollutant measured is within permitted limits and a statement of compliance or noncompliance with all applicable permit conditions. The summary results will include, at a minimum, the following information:

- 1) A statement that the owner or operator has reviewed the report from the emissions testing body and agrees with the findings.
- 2) Permit number(s) and condition(s) which are the basis for the evaluation.
- 3) Summary of results with respect to each applicable permit condition.
- 4) Statement of compliance or non-compliance with each applicable permit condition.

f. Pursuant to 25 Pa. Code § 139.3 all submittals shall meet all applicable requirements specified in the most current version of the Department's Source Testing Manual.

g. All testing shall be performed in accordance with the provisions of Chapter 139 of the Rules and Regulations of the Department of Environmental Protection.

h. Pursuant to 25 Pa. Code Section 139.53(a)(1) and 139.53(a)(3) all submittals, besides notifications, shall be accomplished through PSIMS*Online available through <https://www.depgreenport.state.pa.us/ecommm/Login.jsp> when it becomes available. If internet submittal can not be accomplished, three copies of the submittal shall be sent to the Pennsylvania Department of Environmental Protection, Bureau of Air Quality, Division of Source Testing and Monitoring, 400 Market Street, 12th Floor Rachael Carson State Office Building, Harrisburg, PA 17105-8468 with deadlines verified through document postmarks.

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).



SECTION D. Source Level Plan Approval Requirements

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

**SECTION D. Source Level Plan Approval Requirements**

Source ID: 110

Source Name: PROPANE REMOVAL SYSTEM VENTING

Source Capacity/Throughput:

Conditions for this source occur in the following groups: G01

I. RESTRICTIONS.**Emission Restriction(s).****# 001 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

Permittee shall comply with the applicable requirements of 40 CFR 60, Subpart KKK - Standards of Performance for Equipment Leaks of VOC From Onshore Natural Gas Processing Plants.

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

V. REPORTING REQUIREMENTS.**# 002 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

Owner/operator shall provide EPA with the notifications required by 40 CFR §§ 60.7, 60.487 and 60.636. Required notifications may include but are not necessarily limited to: date of commencement of construction (within 30 days after starting construction), date of anticipated start-up (30-60 days prior to equipment start-up), actual start-up date (within 15 days after equipment start-up), physical or operational changes (60 days or as soon as practicable before equipment start-up), and opacity observations (within 30 days).

VI. WORK PRACTICE REQUIREMENTS.**# 003 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

Permittee shall institute and conduct an audio, visual, and olfactory leak detection and repair (LDAR) program performed on a bi-weekly basis to minimize VOC emissions. At a minimum, the LDAR Program shall meet the applicable requirements of 40 CFR 60, Subpart KKK - Standards of Performance for Equipment Leaks of VOC From Onshore Natural Gas processing Plants. Records of each inspection must be maintained on site for a period of five years and be made available to the Department upon request. Inspection records shall, at a minimum, identify each leak and the length of time until it is repaired. All repairs shall be made within 15 calendar days unless otherwise approved by the Department in writing.

004 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

Propane storage tanks shall be maintained at sufficient working pressures at all times to prevent vapor or gas loss to the atmosphere.

**SECTION D. Source Level Plan Approval Requirements****VII. ADDITIONAL REQUIREMENTS.**

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

**SECTION D. Source Level Plan Approval Requirements**

Source ID: 111

Source Name: NATURAL GAS PROCESSING SYSTEM VENTING

Source Capacity/Throughput:

Conditions for this source occur in the following groups: G01

I. RESTRICTIONS.**Emission Restriction(s).****# 001 [25 Pa. Code §123.11]****Combustion units**

Emission into the outdoor atmosphere of particulate matter from process combustion unit H-101 in excess of the rate of 0.4 pound per million Btu of heat input, when the heat input to the combustion unit in millions of Btus per hour is greater than 2.5 but less than 50, is prohibited.

002 [25 Pa. Code §123.22]**Combustion units**

Emission into the outdoor atmosphere of sulfur oxides, expressed as SO₂, from process combustion unit H-101 in excess of the rate of 4 pounds per million Btu of heat input over any 1-hour is prohibited.

003 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.630]**Subpart KKK - Standards of Performance for Equipment Leaks of VOC From Onshore Natural Gas Processing Plants. Applicability and designation of affected facility.**

These new sources shall be operated in compliance with the applicable requirements of 40 CFR 60, Subpart KKK, Standards of Performance for Equipment Leaks of VOC from Onshore Natural Gas Processing Plants. (40 CFR 60, Subpart KKK)

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.**# 004 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

Permittee shall institute and conduct an audio, visual, and olfactory leak detection and repair (LDAR) program to minimize VOC emissions. Records of each inspection must be maintained on site for a period of five years and be made available to the Department upon request. Inspection records shall, at a minimum, identify each leak and the length of time until it is repaired. All repairs shall be made within 15 calendar days unless otherwise approved by the Department in writing.

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

V. REPORTING REQUIREMENTS.**# 005 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

Owner/operator shall provide EPA with the notifications required by 40 CFR §§ 60.7, 60.487 and 60.636. Required notifications may include but are not necessarily limited to: date of commencement of construction (within 30 days after starting construction), date of anticipated start-up (30-60 days prior to equipment start-up), actual start-up date (within 15 days after equipment start-up), physical or operational changes (60 days or as soon as practicable before equipment startup), and opacity observations (within 30 days).

006 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.630]**Subpart KKK - Standards of Performance for Equipment Leaks of VOC From Onshore Natural Gas Processing Plants. Applicability and designation of affected facility.**

**SECTION D. Source Level Plan Approval Requirements**

Reports submitted for 40 CFR 60, Subpart KKK purposes shall be submitted to both PA DEP and USEPA at the following addresses:

Director
Air Protection Section
US EPA, Region III
1650 Arch Street
Philadelphia, PA 19101-2029

PADEP
Air Quality Program
400 Waterfront Drive
Pittsburgh, PA, 15222-4745

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

**SECTION D. Source Level Plan Approval Requirements**

Source ID: 112

Source Name: SOURCES ADDED BY PA-C - VENTING

Source Capacity/Throughput:

N/A

Conditions for this source occur in the following groups: G01

I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.**# 001 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

Permittee shall institute and conduct an audio, visual, and olfactory leak detection and repair (LDAR) program every two weeks, when operating, to minimize VOC emissions. Records of each inspection must be maintained on site for a period of five years and be made available to the Department upon request. Inspection records shall, at a minimum, identify each leak and the length of time until it is repaired. All repairs shall be made within 15 calendar days unless otherwise approved by the Department in writing.

002 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.630]**Subpart KKK - Standards of Performance for Equipment Leaks of VOC From Onshore Natural Gas Processing Plants. Applicability and designation of affected facility.**

(a)(1) The provisions of this subpart apply to affected facilities in onshore natural gas processing plants.

(2) A compressor in VOC service or in wet gas service is an affected facility.

(3) The group of all equipment except compressors (defined in §60.631) within a process unit is an affected facility.

(b) Any affected facility under paragraph (a) of this section that commences construction, reconstruction, or modification after January 20, 1984, is subject to the requirements of this subpart.

(c) Addition or replacement of equipment (defined in §60.631) for the purpose of process improvement that is accomplished without a capital expenditure shall not by itself be considered a modification under this subpart.

(d) Facilities covered by subpart VV or subpart GGG of 40 CFR part 60 are excluded from this subpart.

(e) A compressor station, dehydration unit, sweetening unit, underground storage tank, field gas gathering system, or liquefied natural gas unit is covered by this subpart if it is located at an onshore natural gas processing plant. If the unit is not located at the plant site, then it is exempt from the provisions of this subpart.

003 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.632]**Subpart KKK - Standards of Performance for Equipment Leaks of VOC From Onshore Natural Gas Processing Plants. Standards.**

(a) Each owner or operator subject to the provisions of this subpart shall comply with the requirements of §§60.482-1 (a), (b), and (d) and 60.482-2 through 60.482-10, except as provided in §60.633, as soon as practicable, but no later than 180 days after initial startup.

(b) An owner or operator may elect to comply with the requirements of §§60.483-1 and 60.483-2.

(c) An owner or operator may apply to the Administrator for permission to use an alternative means of emission limitation

**SECTION D. Source Level Plan Approval Requirements**

that achieves a reduction in emissions of VOC at least equivalent to that achieved by the controls required in this subpart. In doing so, the owner or operator shall comply with requirements of §60.634 of this subpart.

(d) Each owner or operator subject to the provisions of this subpart shall comply with the provisions of §60.485 except as provided in §60.633(f) of this subpart.

(e) Each owner or operator subject to the provisions of this subpart shall comply with the provisions of §§60.486 and 60.487 except as provided in §§60.633, 60.635, and 60.636 of this subpart.

(f) An owner or operator shall use the following provision instead of §60.485(d)(1): Each piece of equipment is presumed to be in VOC service or in wet gas service unless an owner or operator demonstrates that the piece of equipment is not in VOC service or in wet gas service. For a piece of equipment to be considered not in VOC service, it must be determined that the VOC content can be reasonably expected never to exceed 10.0 percent by weight. For a piece of equipment to be considered in wet gas service, it must be determined that it contains or contacts the field gas before the extraction step in the process. For purposes of determining the percent VOC content of the process fluid that is contained in or contacts a piece of equipment, procedures that conform to the methods described in ASTM E169-63, 77, or 93, E168-67, 77, or 92, or E260-73, 91, or 96 (incorporated by reference as specified in §60.17) shall be used.

004 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.633]**Subpart KKK - Standards of Performance for Equipment Leaks of VOC From Onshore Natural Gas Processing Plants. Exceptions.**

(a) Each owner or operator subject to the provisions of this subpart may comply with the following exceptions to the provisions of subpart VV.

(b)(1) Each pressure relief device in gas/vapor service may be monitored quarterly and within 5 days after each pressure release to detect leaks by the methods specified in §60.485(b) except as provided in §60.632(c), paragraph (b)(4) of this section, and §60.482-4 (a) through (c) of subpart VV.

(2) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

(3)(i) When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after it is detected, except as provided in §60.482-9.

(ii) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

(4)(i) Any pressure relief device that is located in a nonfractionating plant that is monitored only by nonplant personnel may be monitored after a pressure release the next time the monitoring personnel are on site, instead of within 5 days as specified in paragraph (b)(1) of this section and §60.482-4(b)(1) of subpart VV.

(ii) No pressure relief device described in paragraph (b)(4)(i) of this section shall be allowed to operate for more than 30 days after a pressure release without monitoring.

(c) Sampling connection systems are exempt from the requirements of §60.482-5.

(d) Pumps in light liquid service, valves in gas/vapor and light liquid service, and pressure relief devices in gas/vapor service that are located at a nonfractionating plant that does not have the design capacity to process 283,200 standard cubic meters per day (scmd) (10 million standard cubic feet per day) or more of field gas are exempt from the routine monitoring requirements of §§60.482-2(a)(1) and 60.482-7(a), and paragraph (b)(1) of this section.

(e) Pumps in light liquid service, valves in gas/vapor and light liquid service, and pressure relief devices in gas/vapor service within a process unit that is located in the Alaskan North Slope are exempt from the routine monitoring requirements of §§60.482-2(a)(1), 60.482-7(a), and paragraph (b)(1) of this section.

(f) Reciprocating compressors in wet gas service are exempt from the compressor control requirements of §60.482-3.

**SECTION D. Source Level Plan Approval Requirements**

(g) Flares used to comply with this subpart shall comply with the requirements of §60.18.

(h) An owner or operator may use the following provisions instead of §60.485(e):

(1) Equipment is in heavy liquid service if the weight percent evaporated is 10 percent or less at 150 °C (302 °F) as determined by ASTM Method D86-78, 82, 90, 95, or 96 (incorporated by reference as specified in §60.17).

(2) Equipment is in light liquid service if the weight percent evaporated is greater than 10 percent at 150 °C (302 °F) as determined by ASTM Method D86-78, 82, 90, 95, or 96 (incorporated by reference as specified in §60.17).

005 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.634]

Subpart KKK - Standards of Performance for Equipment Leaks of VOC From Onshore Natural Gas Processing Plants. Alternative means of emission limitation

(a) If, in the Administrator's judgment, an alternative means of emission limitation will achieve a reduction in VOC emissions at least equivalent to the reduction in VOC emissions achieved under any design, equipment, work practice or operational standard, the Administrator will publish, in the Federal Register a notice permitting the use of that alternative means for the purpose of compliance with that standard. The notice may condition permission on requirements related to the operation and maintenance of the alternative means.

(b) Any notice under paragraph (a) of this section shall be published only after notice and an opportunity for a public hearing.

(c) The Administrator will consider applications under this section from either owners or operators of affected facilities, or manufacturers of control equipment.

(d) The Administrator will treat applications under this section according to the following criteria, except in cases where he concludes that other criteria are appropriate:

(1) The applicant must collect, verify and submit test data, covering a period of at least 12 months, necessary to support the finding in paragraph (a) of this section.

(2) If the applicant is an owner or operator of an affected facility, he must commit in writing to operate and maintain the alternative means so as to achieve a reduction in VOC emissions at least equivalent to the reduction in VOC emissions achieved under the design, equipment, work practice or operational standard.

IV. RECORDKEEPING REQUIREMENTS.

006 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.486]

Subpart VV - Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry

Recordkeeping requirements.

Section 40CFR§60.486 relating to recordkeeping requirements, which is referenced by §60.635 of Subpart KKK, also relating to recordkeeping requirements, is incorporated into this permit by reference.

007 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.635]

Subpart KKK - Standards of Performance for Equipment Leaks of VOC From Onshore Natural Gas Processing Plants. Recordkeeping requirements.

(a) Each owner or operator subject to the provisions of this subpart shall comply with the requirements of paragraphs (b) and (c) of this section in addition to the requirements of §60.486.

(b) The following recordkeeping requirements shall apply to pressure relief devices subject to the requirements of §60.633(b)(1) of this subpart.

(1) When each leak is detected as specified in §60.633(b)(2), a weatherproof and readily visible identification, marked

**SECTION D. Source Level Plan Approval Requirements**

with the equipment identification number, shall be attached to the leaking equipment. The identification on the pressure relief device may be removed after it has been repaired.

(2) When each leak is detected as specified in §60.633(b)(2), the following information shall be recorded in a log and shall be kept for 2 years in a readily accessible location:

- (i) The instrument and operator identification numbers and the equipment identification number.
 - (ii) The date the leak was detected and the dates of each attempt to repair the leak.
 - (iii) Repair methods applied in each attempt to repair the leak.
 - (iv) "Above 10,000 ppm" if the maximum instrument reading measured by the methods specified in paragraph (a) of this section after each repair attempt is 10,000 ppm or greater.
 - (v) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.
 - (vi) The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown.
 - (vii) The expected date of successful repair of the leak if a leak is not repaired within 15 days.
 - (viii) Dates of process unit shutdowns that occur while the equipment is unrepaired.
 - (ix) The date of successful repair of the leak.
 - (x) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of §60.482-4(a). The designation of equipment subject to the provisions of §60.482-4(a) shall be signed by the owner or operator.
- (c) An owner or operator shall comply with the following requirement in addition to the requirement of §60.486(j): Information and data used to demonstrate that a reciprocating compressor is in wet gas service to apply for the exemption in §60.633(f) shall be recorded in a log that is kept in a readily accessible location.

V. REPORTING REQUIREMENTS.**# 008 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

Owner/operator shall provide EPA with the notifications required by 40 CFR §§ 60.7, 60.487 and 60.636. Required notifications may include but are not necessarily limited to: date of commencement of construction (within 30 days after starting construction), date of anticipated start-up (30-60 days prior to equipment start-up), actual start-up date (within 15 days after equipment start-up), physical or operational changes (60 days or as soon as practicable before equipment startup), and opacity observations (within 30 days).

009 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.487]**Subpart VV - Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry****Reporting requirements.**

Section 40CFR§60.487 relating to reporting requirements, which is referenced by §60.636 of Subpart KKK, also relating to reporting requirements, is incorporated into this permit by reference.

010 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.636]**Subpart KKK - Standards of Performance for Equipment Leaks of VOC From Onshore Natural Gas Processing Plants. Reporting requirements.**

**SECTION D. Source Level Plan Approval Requirements**

(a) Each owner or operator subject to the provisions of this subpart shall comply with the requirements of paragraphs (b) and (c) of this section in addition to the requirements of §60.487.

(b) An owner or operator shall include the following information in the initial semiannual report in addition to the information required in §60.487(b) (1)-(4): Number of pressure relief devices subject to the requirements of §60.633(b) except for those pressure relief devices designated for no detectable emissions under the provisions of §60.482-4(a) and those pressure relief devices complying with §60.482-4(c).

(c) An owner or operator shall include the following information in all semiannual reports in addition to the information required in §60.487(c)(2) (i) through (vi):

(1) Number of pressure relief devices for which leaks were detected as required in §60.633(b)(2) and

(2) Number of pressure relief devices for which leaks were not repaired as required in §60.633(b)(3).

011 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.636]

Subpart KKK - Standards of Performance for Equipment Leaks of VOC From Onshore Natural Gas Processing Plants. Reporting requirements.

Reports submitted for 40 CFR 60, Subpart KKK purposes shall be submitted to both PA DEP and USEPA at the following addresses:

Director
Air Protection Section
US EPA, Region III
1650 Arch Street
Philadelphia, PA 19101-2029

PA DEP
Air Quality Program
400 Waterfront Drive
Pittsburgh, PA 15222-4745

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VII. ADDITIONAL REQUIREMENTS.

012 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.630]

Subpart KKK - Standards of Performance for Equipment Leaks of VOC From Onshore Natural Gas Processing Plants. Applicability and designation of affected facility.

These new sources shall be operated in compliance with the applicable requirements of 40 CFR 60, Subpart KKK - Standards of Performance for Equipment Leaks of VOC from Onshore Natural Gas Processing Plants.

**SECTION D. Source Level Plan Approval Requirements**

Source ID: 113

Source Name: FRACTIONATOR TOWER AND 148 MMBTU/HR PROCESS HEATER

Source Capacity/Throughput:

Conditions for this source occur in the following groups: G01

I. RESTRICTIONS.**Emission Restriction(s).****# 001 [25 Pa. Code §123.11]****Combustion units**

The Owner/Operator may not permit the emission into the outdoor atmosphere of particulate matter from this combustion unit in excess of 0.219 lb/MMBtu.

002 [25 Pa. Code §123.22]**Combustion units**

The Owner/Operator may not permit the emission into the outdoor atmosphere of sulfur oxides, expressed as SO₂, from this combustion unit in excess of 4.0 lb/MMBtu of heat input over any 1-hour period.

003 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

The Owner/Operator may not permit the emission into the outdoor atmosphere of visible air contaminants in such a manner that the opacity of the emission is either of the following:

- a. Equal to or greater than 10% for a period or periods aggregating more than three minutes in any one hour.
- b. Equal to or greater than 30% at any time.

004 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

Emissions from the 148 MMBtu/hr process heater shall be limited to less than or equal to the following:

NO_x - 0.029 lb/MMBtu

II. TESTING REQUIREMENTS.**# 005 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

Performance testing shall be required as follows:

- a. The Owner/Operator shall perform NO_x, CO, and VOC emission tests the process heater at the Facility according to the requirements of 25 Pa. Code Chapter 139. Emission testing is required within 180 days of startup of the process heater or alternative schedule as approved by the Department. EPA Method stack testing shall be conducted for the initial stack test.
- b. The Owner/Operator shall submit three copies of a pre-test protocol to the Department for review at least 45 days prior to the performance of any EPA reference method stack test. The Owner/Operator shall submit three copies of a one-time protocol to the Department for review for the use of a portable analyzer and may repeat portable analyzer testing without additional protocol approvals provided that the same method and equipment are used. All proposed performance test methods shall be identified in the pre-test protocol and approved by the Department prior to testing.
- c. The Owner/Operator shall notify the Regional Air Quality Manager at least 15 days prior to any performance test so that an observer may be present at the time of the test. Notification shall also be sent to the Division of Source Testing and Monitoring. Notification shall not be made without prior receipt of a protocol acceptance letter from the Department.
- d. Pursuant to 25 Pa. Code Section 139.53(a)(2), a complete test report shall be submitted to the Department no later than 60 calendar days after completion of the on-site testing portion of an emission test program.
- e. Pursuant to 25 Pa. Code Section 139.53(b) a complete test report shall include a summary of the emission results on the first page of the report indicating if each pollutant measured is within permitted limits and a statement of compliance or noncompliance with all applicable permit conditions. The summary results will include, at a minimum, the following information:

**SECTION D. Source Level Plan Approval Requirements**

- i. A statement that the owner or operator has reviewed the report from the emissions testing body and agrees with the findings.
 - ii. Permit number(s) and condition(s) which are the basis for the evaluation.
 - iii. Summary of results with respect to each applicable permit condition.
 - iv. Statement of compliance or non-compliance with each applicable permit condition.
- f. Pursuant to 25 Pa. Code § 139.3 all submittals shall meet all applicable requirements specified in the most current version of the Department's Source Testing Manual.
- g. All testing shall be performed in accordance with the provisions of Chapter 139 of the Rules and Regulations of the Department of Environmental Protection.
- h. Pursuant to 25 Pa. Code Section 139.53(a)(1) and 139.53(a)(3) all submittals, besides notifications, shall be accomplished through PSIMS*Online available through <https://www.depgreenport.state.pa.us/ecommm/Login.jsp> when it becomes available. If internet submittal can not be accomplished, three copies of the submittal shall be sent to the Pennsylvania Department of Environmental Protection, Bureau of Air Quality, Division of Source Testing and Monitoring, 400 Market Street, 12th Floor Rachael Carson State Office Building, Harrisburg, PA 17105-8468 with deadlines verified through document postmarks.

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

IV. RECORDKEEPING REQUIREMENTS.

006 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.635]
Subpart KKK - Standards of Performance for Equipment Leaks of VOC From Onshore Natural Gas Processing Plants.
Recordkeeping requirements.

Section 40 CFR §60.486, relating to recordkeeping requirements, which is referenced by §60.635 of Subpart KKK, also relating to recordkeeping requirements, is incorporated into this permit by reference.

007 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.635]
Subpart KKK - Standards of Performance for Equipment Leaks of VOC From Onshore Natural Gas Processing Plants.
Recordkeeping requirements.

Recordkeeping requirements.

a. Each owner or operator subject to the provisions of this subpart shall comply with the requirements of paragraphs (b) and (c) of this section in addition to the requirements of §60.486.

b. The following recordkeeping requirements shall apply to pressure relief devices subject to the requirements of §60.633(b)(1) of this subpart.

1) When each leak is detected as specified in §60.633(b)(2), a weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment. The identification on the pressure relief device may be removed after it has been repaired.

2) When each leak is detected as specified in §60.633(b)(2), the following information shall be recorded in a log and shall be kept for 2 years in a readily accessible location:

- i. The instrument and operator identification numbers and the equipment identification number.
- ii. The date the leak was detected and the dates of each attempt to repair the leak.
- iii. Repair methods applied in each attempt to repair the leak.
- iv. "Above 10,000 ppm" if the maximum instrument reading measured by the methods specified in paragraph (a) of this section after each repair attempt is 10,000 ppm or greater.

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- v. "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.
 - vi. The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown.
 - vii. The expected date of successful repair of the leak if a leak is not repaired within 15 days.
 - viii. Dates of process unit shutdowns that occur while the equipment is unrepaired.
 - ix. The date of successful repair of the leak.
 - x. A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of §60.482-4(a). The designation of equipment subject to the provisions of §60.482-4(a) shall be signed by the owner or operator.
- c. An owner or operator shall comply with the following requirement in addition to the requirement of §60.486(j): Information and data used to demonstrate that a reciprocating compressor is in wet gas service to apply for the exemption in §60.633(f) shall be recorded in a log that is kept in a readily accessible location.

V. REPORTING REQUIREMENTS.**# 008 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.636]****Subpart KKK - Standards of Performance for Equipment Leaks of VOC From Onshore Natural Gas Processing Plants. Reporting requirements.**

Section 40 CFR §60.487, relating to reporting requirements, which is referenced by §60.636 of Subpart KKK, also relating to reporting requirements, is incorporated into this permit by reference.

009 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.636]**Subpart KKK - Standards of Performance for Equipment Leaks of VOC From Onshore Natural Gas Processing Plants. Reporting requirements.**

Reporting requirements.

- a. Each owner or operator subject to the provisions of this subpart shall comply with the requirements of paragraphs (b) and (c) of this section in addition to the requirements of §60.487.
- b. An owner or operator shall include the following information in the initial semiannual report in addition to the information required in §60.487(b) (1)-(4): Number of pressure relief devices subject to the requirements of §60.633(b) except for those pressure relief devices designated for no detectable emissions under the provisions of §60.482-4(a) and those pressure relief devices complying with §60.482-4(c).
- c. An owner or operator shall include the following information in all semiannual reports in addition to the information required in §60.487(c)(2) (i) through (vi):
 - 1) Number of pressure relief devices for which leaks were detected as required in §60.633(b)(2) and
 - 2) Number of pressure relief devices for which leaks were not repaired as required in §60.633(b)(3).

VI. WORK PRACTICE REQUIREMENTS.**# 010 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.632]****Subpart KKK - Standards of Performance for Equipment Leaks of VOC From Onshore Natural Gas Processing Plants. Standards.**

Standards.

- a. Each owner or operator subject to the provisions of this subpart shall comply with the requirements of §§60.482-1 (a), (b), and (d) and 60.482-2 through 60.482-10, except as provided in §60.633, as soon as practicable, but no later than 180 days after initial startup.
- b. An owner or operator may elect to comply with the requirements of §§60.483-1 and 60.483-2.
- c. An owner or operator may apply to the Administrator for permission to use an alternative means of emission limitation that achieves a reduction in emissions of VOC at least equivalent to that achieved by the controls required in this subpart. In

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doing so, the owner or operator shall comply with requirements of §60.634 of this subpart.

d. Each owner or operator subject to the provisions of this subpart shall comply with the provisions of §60.485 except as provided in §60.633(f) of this subpart.

e. Each owner or operator subject to the provisions of this subpart shall comply with the provisions of §§60.486 and 60.487 except as provided in §§60.633, 60.635, and 60.636 of this subpart.

f. An owner or operator shall use the following provision instead of §60.485(d)(1): Each piece of equipment is presumed to be in VOC service or in wet gas service unless an owner or operator demonstrates that the piece of equipment is not in VOC service or in wet gas service. For a piece of equipment to be considered not in VOC service, it must be determined that the VOC content can be reasonably expected never to exceed 10.0 percent by weight. For a piece of equipment to be considered in wet gas service, it must be determined that it contains or contacts the field gas before the extraction step in the process. For purposes of determining the percent VOC content of the process fluid that is contained in or contacts a piece of equipment, procedures that conform to the methods described in ASTM E169-63, 77, or 93, E168-67, 77, or 92, or E260-73, 91, or 96 (incorporated by reference as specified in §60.17) shall be used.

011 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.633]**Subpart KKK - Standards of Performance for Equipment Leaks of VOC From Onshore Natural Gas Processing Plants. Exceptions.**

Exceptions.

a. Each owner or operator subject to the provisions of this subpart may comply with the following exceptions to the provisions of subpart VV.

b.

1) Each pressure relief device in gas/vapor service may be monitored quarterly and within 5 days after each pressure release to detect leaks by the methods specified in §60.485(b) except as provided in §60.632(c), paragraph (b)(4) of this section, and §60.482-4 (a) through (c) of subpart VV.

2) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

3)

i. When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after it is detected, except as provided in §60.482-9.

ii. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

4)

i. Any pressure relief device that is located in a nonfractionating plant that is monitored only by nonplant personnel may be monitored after a pressure release the next time the monitoring personnel are on site, instead of within 5 days as specified in paragraph (b)(1) of this section and §60.482-4(b)(1) of subpart VV.

ii. No pressure relief device described in paragraph (b)(4)(i) of this section shall be allowed to operate for more than 30 days after a pressure release without monitoring.

c. Sampling connection systems are exempt from the requirements of §60.482-5.

d. Pumps in light liquid service, valves in gas/vapor and light liquid service, and pressure relief devices in gas/vapor service that are located at a nonfractionating plant that does not have the design capacity to process 283,200 standard cubic meters per day (scmd) (10 million standard cubic feet per day) or more of field gas are exempt from the routine monitoring requirements of §§60.482-2(a)(1) and 60.482-7(a), and paragraph (b)(1) of this section.

e. Pumps in light liquid service, valves in gas/vapor and light liquid service, and pressure relief devices in gas/vapor service within a process unit that is located in the Alaskan North Slope are exempt from the routine monitoring requirements of

**SECTION D. Source Level Plan Approval Requirements**

§§60.482-2(a)(1), 60.482-7(a), and paragraph (b)(1) of this section.

f. Reciprocating compressors in wet gas service are exempt from the compressor control requirements of §60.482-3.

g. Flares used to comply with this subpart shall comply with the requirements of §60.18.

h. An owner or operator may use the following provisions instead of §60.485(e):

1) Equipment is in heavy liquid service if the weight percent evaporated is 10 percent or less at 150 °C (302 °F) as determined by ASTM Method D86-78, 82, 90, 95, or 96 (incorporated by reference as specified in §60.17).

2) Equipment is in light liquid service if the weight percent evaporated is greater than 10 percent at 150 °C (302 °F) as determined by ASTM Method D86-78, 82, 90, 95, or 96 (incorporated by reference as specified in §60.17).

012 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.634]

**Subpart KKK - Standards of Performance for Equipment Leaks of VOC From Onshore Natural Gas Processing Plants.
Alternative means of emission limitation**

Alternative means of emission limitation.

a. If, in the Administrator's judgment, an alternative means of emission limitation will achieve a reduction in VOC emissions at least equivalent to the reduction in VOC emissions achieved under any design, equipment, work practice or operational standard, the Administrator will publish, in the Federal Register a notice permitting the use of that alternative means for the purpose of compliance with that standard. The notice may condition permission on requirements related to the operation and maintenance of the alternative means.

b. Any notice under paragraph (a) of this section shall be published only after notice and an opportunity for a public hearing.

c. The Administrator will consider applications under this section from either owners or operators of affected facilities, or manufacturers of control equipment.

d. The Administrator will treat applications under this section according to the following criteria, except in cases where he concludes that other criteria are appropriate:

1) The applicant must collect, verify and submit test data, covering a period of at least 12 months, necessary to support the finding in paragraph (a) of this section.

2) If the applicant is an owner or operator of an affected facility, he must commit in writing to operate and maintain the alternative means so as to achieve a reduction in VOC emissions at least equivalent to the reduction in VOC emissions achieved under the design, equipment, work practice or operational standard.

VII. ADDITIONAL REQUIREMENTS.

013 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.630]

**Subpart KKK - Standards of Performance for Equipment Leaks of VOC From Onshore Natural Gas Processing Plants.
Applicability and designation of affected facility.**

Applicability and designation of affected facility.

a.

1) The provisions of this subpart apply to affected facilities in onshore natural gas processing plants.

2) A compressor in VOC service or in wet gas service is an affected facility.

3) The group of all equipment except compressors (defined in §60.631) within a process unit is an affected facility.

b. Any affected facility under paragraph (a) of this section that commences construction, reconstruction, or modification after January 20, 1984, is subject to the requirements of this subpart.

c. Addition or replacement of equipment (defined in §60.631) for the purpose of process improvement that is accomplished

**SECTION D. Source Level Plan Approval Requirements**

without a capital expenditure shall not by itself be considered a modification under this subpart.

d. Facilities covered by subpart VV or subpart GGG of 40 CFR part 60 are excluded from this subpart.

e. A compressor station, dehydration unit, sweetening unit, underground storage tank, field gas gathering system, or liquefied natural gas unit is covered by this subpart if it is located at an onshore natural gas processing plant. If the unit is not located at the plant site, then it is exempt from the provisions of this subpart.

014 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.630]

Subpart KKK - Standards of Performance for Equipment Leaks of VOC From Onshore Natural Gas Processing Plants. Applicability and designation of affected facility.

New sources at this facility are subject to the requirements under 40 CFR Part 60 Subpart KKK - Standards of Performance for Equipment Leaks of VOC from Onshore Natural Gas Processing Plants.

015 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.631]

Subpart KKK - Standards of Performance for Equipment Leaks of VOC From Onshore Natural Gas Processing Plants. Definitions.

All terms used in 40 CFR Part 60 Subpart KKK shall have the meaning given in 40 CFR §60.631 or else in the Clean Air Act, 40 CFR Part 60 Subpart A, or 40 CFR Part 60 Subpart VV.

016 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.632]

Subpart KKK - Standards of Performance for Equipment Leaks of VOC From Onshore Natural Gas Processing Plants. Standards.

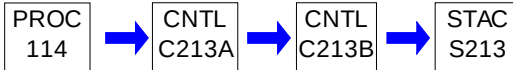
Section 40 CFR §§60.482-1 (a), (b), and (d) and 60.482-2 through 60.482-10, relating to equipment standards, which are referenced by §60.632 of Subpart KKK, are incorporated into this plan approval by reference.

**SECTION D. Source Level Plan Approval Requirements**

Source ID: 114

Source Name: RAIL LOAD-OUT TERMINAL FUGITIVE

Source Capacity/Throughput:

**I. RESTRICTIONS.****Emission Restriction(s).**

001 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

Emissions of VOC from the rail load-out flare stack shall not exceed 12.0 tpy in any consecutive 12-month period.

002 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

Visible emissions from the enclosed flare shall not equal or exceed 10% opacity at any time.

Throughput Restriction(s).

003 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

Throughputs for the rail load-out terminal shall not exceed the following during any consecutive 12-month period:

- a. Propane - 525 million gallons
- b. Iso-butane - 92 million gallons
- c. N-butane - 166 million gallons
- d. Natural gasoline - 166 million gallons

Control Device Efficiency Restriction(s).

004 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The enclosed flare shall be operated to reduce collected VOC emissions by 98% over a 3-hour average.

II. TESTING REQUIREMENTS.

005 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The Owner/Operator shall perform CO and VOC emission tests upon the enclosed flare at the Facility within 180 days after the completion of construction, but no later than 60 days after beginning operation of the enclosed flare. EPA Method stack testing shall be conducted for the initial stack test. Subsequent testing shall be performed at a minimum of every five (5) years thereafter.

006 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

Performance testing shall be conducted as follows:

- a. The Owner/Operator shall submit three copies of a pre-test protocol to the Department for review at least 45 days prior to the performance of any EPA reference method stack test. The Owner/Operator shall submit three copies of a one-time protocol to the Department for review for the use of a portable analyzer and may repeat portable analyzer testing without additional protocol approvals provided that the same method and equipment are used. All proposed performance test methods shall be identified in the pre-test protocol and approved by the Department prior to testing.
- b. The Owner/Operator shall notify the Regional Air Quality Manager and John Zink Company at least 15 days prior to any performance test so that an observer may be present at the time of the test. Notification shall also be sent to the Division of Source Testing and Monitoring. Notification shall not be made without prior receipt of a protocol acceptance letter from the

**SECTION D. Source Level Plan Approval Requirements**

Department.

c. A complete test report shall be submitted to the Department no later than 60 calendar days after completion of the on-site testing portion of an emission test program.

d. Pursuant to 25 Pa. Code Section 139.53(b) a complete test report shall include a summary of the emission results on the first page of the report indicating if each pollutant measured is within permitted limits and a statement of compliance or non-compliance with all applicable permit conditions. The summary results will include, at a minimum, the following information:

1. A statement that the owner or operator has reviewed the report from the emissions testing body and agrees with the findings.
2. Permit number(s) and condition(s) which are the basis for the evaluation.
3. Summary of results with respect to each applicable permit condition.
4. Statement of compliance or non-compliance with each applicable permit condition.

e. Pursuant to 25 Pa. Code § 139.3 all submittals shall meet all applicable requirements specified in the most current version of the Department's Source Testing Manual.

f. All testing shall be performed in accordance with the provisions of Chapter 139 of the Rules and Regulations of the Department of Environmental Protection.

g. Pursuant to 25 Pa. Code Section 139.53(a)(1) and 139.53(a)(3) all submittals, besides notifications, shall be accomplished through PSIMS*Online available through <https://www.depgreenport.state.pa.us/ecommm/Login.jsp> when it becomes available. If internet submittal cannot be accomplished, three copies of the submittal shall be sent to the Pennsylvania Department of Environmental Protection, Bureau of Air Quality, Division of Source Testing and Monitoring, 400 Market Street, 12th Floor Rachael Carson State Office Building, Harrisburg, PA 17105-8468 with deadlines verified through document postmarks.

h. The permittee shall ensure all federal reporting requirements contained in the applicable subpart of 40 CFR are followed, including timelines more stringent than those contained herein. In the event of an inconsistency or any conflicting requirements between state and the federal, the most stringent provision, term, condition, method or rule shall be used by default.

III. MONITORING REQUIREMENTS.**# 007 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

The Owner/Operator shall monitor liquid level within railcar storage tanks during loading to avoid overfilling and fugitive emission releases from pressure relief devices.

008 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

The Owner/Operator shall measure and record the inlet VOC concentration to the vapor recovery system and the liquids recovered by the system; or, the inlet VOC concentration to the rail load-out flare.

009 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

The Owner/Operator shall monitor for pressure relief valve releases while the railcar storage tanks are on site. Records of any pressure relief event shall be maintained in a log book and include the following details at a minimum:

- a. Date and time of the pressure relief event;
- b. Name and title of the observer;
- c. Duration of the event;
- d. Estimated emission rate during the event, and;
- e. Corrective action taken as a result of the event.

**SECTION D. Source Level Plan Approval Requirements****# 010 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

The temperature within the enclosed flare shall be continuously monitored and periodically recorded at the minimum of once every 15 minutes on a chart or electronic media.

011 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

The Owner/Operator shall conduct a daily inspection of the rail load-out terminal during daylight hours while the sources are in operation for the presence of any visible stack emissions; equipment leaks (by audio, visual, or olfactory means) potentially resulting in VOC emissions; and also any fugitive emissions or malodors at the property line. If visible stack emissions, equipment leaks potentially resulting in VOC emissions, fugitive emissions, or malodors are apparent, the Owner/Operator shall take corrective action. Records of each inspection shall be maintained in a log and at the minimum include the date, time, name and title of the observer, along with any corrective action taken as a result.

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

VI. WORK PRACTICE REQUIREMENTS.**# 012 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

Pressurized railcar storage tanks to be loaded with propane, N-butane, or iso-butane shall be for dedicated normal service and utilize preset stop-fill devices during loading.

013 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

Pressurized railcar storage tanks shall be equipped with pressure relief valves calibrated properly for the pressure level of the tank. Release of a pressure relief valve during loading shall cause the emergency shutdown of loading operations for that tank.

014 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

Railcar storage tanks to be loaded with natural gasoline must have (at a minimum) passed the NSPS-level annual leak test within the previous 12 months. These storage tanks must undergo no more than 3 inches of water column pressure change within 5 minutes after pressurizing the tank to 18 inches water or after pulling a vacuum on the tank of 6 inches water.

015 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

Railcar storage tanks to be loaded with natural gasoline shall be for dedicated normal service, filled by submerged loading, and make use of preset stop-fill devices during loading.

016 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

The enclosed flare shall, at all times that vapors are collected during loading, be operated at a minimum temperature of 1,300 °F or at the minimum temperature at which a 98% destruction efficiency is demonstrated during performance testing.

**SECTION D. Source Level Plan Approval Requirements****# 017 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

The Owner/Operator shall take any and all reasonable actions to avoid excess drainage of natural gas liquids or the emission of excess vapors during the disconnection of hoses after loading of a storage tank.

018 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

The vapor recovery system and enclosed flare shall be operated at all times while natural gas liquids are being loaded to control VOC emissions from the railcar storage tanks.

019 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

The enclosed flare shall be equipped with an automatic pilot ignition system.

020 [25 Pa. Code §129.57]**Storage tanks less than or equal to 40,000 gallons capacity containing VOCs**

Atmospheric pressure railcar storage tanks shall have pressure relief valves which are maintained in good operating condition and which are set to release at no less than .7 psig (4.8 kilopascals) of pressure or .3 psig (2.1 kilopascals) of vacuum or the highest possible pressure and vacuum in accordance with state or local fire codes or the National Fire Prevention Association guidelines or other national consensus standards acceptable to the Department.

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

**SECTION D. Source Level Plan Approval Requirements**

Source ID: 116

Source Name: WV DEPROPANIZER VENTING

Source Capacity/Throughput:

Conditions for this source occur in the following groups: G01

I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

IV. RECORDKEEPING REQUIREMENTS.

**# 001 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.635]
Subpart KKK - Standards of Performance for Equipment Leaks of VOC From Onshore Natural Gas Processing Plants.
Recordkeeping requirements.**

Recordkeeping requirements.

a. Each owner or operator subject to the provisions of this subpart shall comply with the requirements of paragraphs (b) and (c) of this section in addition to the requirements of §60.486.

b. The following recordkeeping requirements shall apply to pressure relief devices subject to the requirements of §60.633(b)(1) of this subpart.

1) When each leak is detected as specified in §60.633(b)(2), a weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment. The identification on the pressure relief device may be removed after it has been repaired.

2) When each leak is detected as specified in §60.633(b)(2), the following information shall be recorded in a log and shall be kept for 2 years in a readily accessible location:

- i. The instrument and operator identification numbers and the equipment identification number.
- ii. The date the leak was detected and the dates of each attempt to repair the leak.
- iii. Repair methods applied in each attempt to repair the leak.
- iv. "Above 10,000 ppm" if the maximum instrument reading measured by the methods specified in paragraph (a) of this section after each repair attempt is 10,000 ppm or greater.
- v. "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.
- vi. The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown.
- vii. The expected date of successful repair of the leak if a leak is not repaired within 15 days.
- viii. Dates of process unit shutdowns that occur while the equipment is unrepaired.
- ix. The date of successful repair of the leak.
- x. A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of §60.482–4(a). The designation of equipment subject to the provisions of §60.482–4(a) shall be signed by the owner or operator.

c. An owner or operator shall comply with the following requirement in addition to the requirement of §60.486(j): Information and data used to demonstrate that a reciprocating compressor is in wet gas service to apply for the exemption in §60.633(f) shall be recorded in a log that is kept in a readily accessible location.

**SECTION D. Source Level Plan Approval Requirements****# 002 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.635]****Subpart KKK - Standards of Performance for Equipment Leaks of VOC From Onshore Natural Gas Processing Plants. Recordkeeping requirements.**

Section 40 CFR §60.486, relating to recordkeeping requirements, which is referenced by §60.635 of Subpart KKK, also relating to recordkeeping requirements, is incorporated into this permit by reference.

V. REPORTING REQUIREMENTS.**# 003 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.636]****Subpart KKK - Standards of Performance for Equipment Leaks of VOC From Onshore Natural Gas Processing Plants. Reporting requirements.**

Reporting requirements.

a. Each owner or operator subject to the provisions of this subpart shall comply with the requirements of paragraphs (b) and (c) of this section in addition to the requirements of §60.487.

b. An owner or operator shall include the following information in the initial semiannual report in addition to the information required in §60.487(b) (1)–(4): Number of pressure relief devices subject to the requirements of §60.633(b) except for those pressure relief devices designated for no detectable emissions under the provisions of §60.482–4(a) and those pressure relief devices complying with §60.482–4(c).

c. An owner or operator shall include the following information in all semiannual reports in addition to the information required in §60.487(c)(2) (i) through (vi):

- 1) Number of pressure relief devices for which leaks were detected as required in §60.633(b)(2) and
- 2) Number of pressure relief devices for which leaks were not repaired as required in §60.633(b)(3).

004 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.636]**Subpart KKK - Standards of Performance for Equipment Leaks of VOC From Onshore Natural Gas Processing Plants. Reporting requirements.**

Section 40 CFR §60.487, relating to reporting requirements, which is referenced by §60.636 of Subpart KKK, also relating to reporting requirements, is incorporated into this permit by reference.

005 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.7]**Subpart A - General Provisions****Notification and record keeping.**

The Owner/Operator shall provide EPA with the notifications required by 40 CFR §§60.7, 60.636, and 60.487. Required notifications may include but are not necessarily limited to: date of commencement of construction (within 30 days after starting construction), actual start-up date (within 15 days after equipment start-up), physical or operational changes which may increase the emission rate of any air pollutant to which a standard applies (60 days or as soon as practicable before equipment start-up), and opacity observations (within 30 days).

VI. WORK PRACTICE REQUIREMENTS.**# 006 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.632]****Subpart KKK - Standards of Performance for Equipment Leaks of VOC From Onshore Natural Gas Processing Plants. Standards.**

Standards.

a. Each owner or operator subject to the provisions of this subpart shall comply with the requirements of §§60.482–1 (a), (b), and (d) and 60.482–2 through 60.482–10, except as provided in §60.633, as soon as practicable, but no later than 180 days after initial startup.

b. An owner or operator may elect to comply with the requirements of §§60.483–1 and 60.483–2.

**SECTION D. Source Level Plan Approval Requirements**

c. An owner or operator may apply to the Administrator for permission to use an alternative means of emission limitation that achieves a reduction in emissions of VOC at least equivalent to that achieved by the controls required in this subpart. In doing so, the owner or operator shall comply with requirements of §60.634 of this subpart.

d. Each owner or operator subject to the provisions of this subpart shall comply with the provisions of §60.485 except as provided in §60.633(f) of this subpart.

e. Each owner or operator subject to the provisions of this subpart shall comply with the provisions of §§60.486 and 60.487 except as provided in §§60.633, 60.635, and 60.636 of this subpart.

f. An owner or operator shall use the following provision instead of §60.485(d)(1): Each piece of equipment is presumed to be in VOC service or in wet gas service unless an owner or operator demonstrates that the piece of equipment is not in VOC service or in wet gas service. For a piece of equipment to be considered not in VOC service, it must be determined that the VOC content can be reasonably expected never to exceed 10.0 percent by weight. For a piece of equipment to be considered in wet gas service, it must be determined that it contains or contacts the field gas before the extraction step in the process. For purposes of determining the percent VOC content of the process fluid that is contained in or contacts a piece of equipment, procedures that conform to the methods described in ASTM E169–63, 77, or 93, E168–67, 77, or 92, or E260–73, 91, or 96 (incorporated by reference as specified in §60.17) shall be used.

007 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.633]**Subpart KKK - Standards of Performance for Equipment Leaks of VOC From Onshore Natural Gas Processing Plants. Exceptions.**

Exceptions.

a. Each owner or operator subject to the provisions of this subpart may comply with the following exceptions to the provisions of subpart VV.

b.

1) Each pressure relief device in gas/vapor service may be monitored quarterly and within 5 days after each pressure release to detect leaks by the methods specified in §60.485(b) except as provided in §60.632(c), paragraph (b)(4) of this section, and §60.482–4 (a) through (c) of subpart VV.

2) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

3)

i. When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after it is detected, except as provided in §60.482–9.

ii. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

4)

i. Any pressure relief device that is located in a nonfractionating plant that is monitored only by nonplant personnel may be monitored after a pressure release the next time the monitoring personnel are on site, instead of within 5 days as specified in paragraph (b)(1) of this section and §60.482–4(b)(1) of subpart VV.

ii. No pressure relief device described in paragraph (b)(4)(i) of this section shall be allowed to operate for more than 30 days after a pressure release without monitoring.

c. Sampling connection systems are exempt from the requirements of §60.482–5.

d. Pumps in light liquid service, valves in gas/vapor and light liquid service, and pressure relief devices in gas/vapor service that are located at a nonfractionating plant that does not have the design capacity to process 283,200 standard cubic meters per day (scmd) (10 million standard cubic feet per day) or more of field gas are exempt from the routine monitoring requirements of §§60.482–2(a)(1) and 60.482–7(a), and paragraph (b)(1) of this section.

**SECTION D. Source Level Plan Approval Requirements**

e. Pumps in light liquid service, valves in gas/vapor and light liquid service, and pressure relief devices in gas/vapor service within a process unit that is located in the Alaskan North Slope are exempt from the routine monitoring requirements of §§60.482–2(a)(1), 60.482–7(a), and paragraph (b)(1) of this section.

f. Reciprocating compressors in wet gas service are exempt from the compressor control requirements of §60.482–3.

g. Flares used to comply with this subpart shall comply with the requirements of §60.18.

h. An owner or operator may use the following provisions instead of §60.485(e):

1) Equipment is in heavy liquid service if the weight percent evaporated is 10 percent or less at 150 °C (302 °F) as determined by ASTM Method D86–78, 82, 90, 95, or 96 (incorporated by reference as specified in §60.17).

2) Equipment is in light liquid service if the weight percent evaporated is greater than 10 percent at 150 °C (302 °F) as determined by ASTM Method D86–78, 82, 90, 95, or 96 (incorporated by reference as specified in §60.17).

008 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.634]**Subpart KKK - Standards of Performance for Equipment Leaks of VOC From Onshore Natural Gas Processing Plants.****Alternative means of emission limitation**

Alternative means of emission limitation.

a. If, in the Administrator's judgment, an alternative means of emission limitation will achieve a reduction in VOC emissions at least equivalent to the reduction in VOC emissions achieved under any design, equipment, work practice or operational standard, the Administrator will publish, in the Federal Register a notice permitting the use of that alternative means for the purpose of compliance with that standard. The notice may condition permission on requirements related to the operation and maintenance of the alternative means.

b. Any notice under paragraph (a) of this section shall be published only after notice and an opportunity for a public hearing.

c. The Administrator will consider applications under this section from either owners or operators of affected facilities, or manufacturers of control equipment.

d. The Administrator will treat applications under this section according to the following criteria, except in cases where he concludes that other criteria are appropriate:

1) The applicant must collect, verify and submit test data, covering a period of at least 12 months, necessary to support the finding in paragraph (a) of this section.

2) If the applicant is an owner or operator of an affected facility, he must commit in writing to operate and maintain the alternative means so as to achieve a reduction in VOC emissions at least equivalent to the reduction in VOC emissions achieved under the design, equipment, work practice or operational standard.

VII. ADDITIONAL REQUIREMENTS.**# 009 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.630]****Subpart KKK - Standards of Performance for Equipment Leaks of VOC From Onshore Natural Gas Processing Plants.****Applicability and designation of affected facility.**

New sources at this Facility are subject to the requirements under 40 CFR Part 60 Subpart KKK – Standards of Performance for Equipment Leaks of VOC from Onshore Natural Gas Processing Plants.

010 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.630]**Subpart KKK - Standards of Performance for Equipment Leaks of VOC From Onshore Natural Gas Processing Plants.****Applicability and designation of affected facility.**

Applicability and designation of affected facility.

a.

1) The provisions of this subpart apply to affected facilities in onshore natural gas processing plants.

**SECTION D. Source Level Plan Approval Requirements**

2) A compressor in VOC service or in wet gas service is an affected facility.

3) The group of all equipment except compressors (defined in §60.631) within a process unit is an affected facility.

b. Any affected facility under paragraph (a) of this section that commences construction, reconstruction, or modification after January 20, 1984, is subject to the requirements of this subpart.

c. Addition or replacement of equipment (defined in §60.631) for the purpose of process improvement that is accomplished without a capital expenditure shall not by itself be considered a modification under this subpart.

d. Facilities covered by subpart VV or subpart GGG of 40 CFR part 60 are excluded from this subpart.

e. A compressor station, dehydration unit, sweetening unit, underground storage tank, field gas gathering system, or liquefied natural gas unit is covered by this subpart if it is located at an onshore natural gas processing plant. If the unit is not located at the plant site, then it is exempt from the provisions of this subpart.

011 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.631]

Subpart KKK - Standards of Performance for Equipment Leaks of VOC From Onshore Natural Gas Processing Plants. Definitions.

All terms used in 40 CFR Part 60 Subpart KKK shall have the meaning given in 40 CFR §60.631 or else in the Clean Air Act, 40 CFR Part 60 Subpart A, or 40 CFR Part 60 Subpart VV.

012 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.632]

Subpart KKK - Standards of Performance for Equipment Leaks of VOC From Onshore Natural Gas Processing Plants. Standards.

Section 40 CFR §§60.482–1 (a), (b), and (d) and 60.482–2 through 60.482–10, relating to equipment standards, which are referenced by §60.632 of Subpart KKK, are incorporated into this plan approval by reference.



SECTION D. Source Level Plan Approval Requirements

Source ID: 117

Source Name: HOUSTON DEETHANIZER VENTING

Source Capacity/Throughput:

Conditions for this source occur in the following groups: G01

I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

**SECTION D. Source Level Plan Approval Requirements**

Source ID: 118

Source Name: HOUSTON 4 VENTING

Source Capacity/Throughput:

I. RESTRICTIONS.**Emission Restriction(s).****# 001 [25 Pa. Code §123.11]****Combustion units**

The permittee may not permit the emission into the outdoor atmosphere of particulate matter from the Houston 4 regenerative heater in excess the rate of 0.4 pound per million Btu of heat input.

002 [25 Pa. Code §123.22]**Combustion units**

The permittee may not permit the emission into the outdoor atmosphere of sulfur oxides, expressed as SO₂, from the Houston 4 regenerative heater in excess of the rate of 4 pounds per million Btu of heat input over a 1-hour period.

003 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.5401]**Subpart OOOO - Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution****What are the exceptions to the equipment leak standards for affected facilities at onshore natural gas processing plant**

(a) You may comply with the following exceptions to the provisions of § 60.5400(a) and (b).

(b)(1) Each pressure relief device in gas/vapor service may be monitored quarterly and within 5 days after each pressure release to detect leaks by the methods specified in § 60.485a(b) except as provided in § 60.5400(c) and in paragraph (b)(4) of this section, and § 60.482-4a(a) through (c) of subpart VVa.

(2) If an instrument reading of 500 ppm or greater is measured, a leak is detected.

(3)(i) When a leak is detected, it must be repaired as soon as practicable, but no later than 15 calendar days after it is detected, except as provided in § 60.482-9a.

(ii) A first attempt at repair must be made no later than 5 calendar days after each leak is detected.

(4)(i) Any pressure relief device that is located in a nonfractionating plant that is monitored only by non-plant personnel may be monitored after a pressure release the next time the monitoring personnel are on-site, instead of within 5 days as specified in paragraph (b)(1) of this section and § 60.482-4a(b)(1) of subpart VVa.

(ii) No pressure relief device described in paragraph (b)(4)(i) of this section must be allowed to operate for more than 30 days after a pressure release without monitoring.

(c) Sampling connection systems are exempt from the requirements of § 60.482-5a.

(d) Pumps in light liquid service, valves in gas/vapor and light liquid service, and pressure relief devices in gas/vapor service that are located at a nonfractionating plant that does not have the design capacity to process 283,200 standard cubic meters per day (scmd) (10 million standard cubic feet per day) or more of field gas are exempt from the routine monitoring requirements of §§ 60.482-2a(a)(1) and 60.482-7a(a), and paragraph (b)(1) of this section.

(e) Pumps in light liquid service, valves in gas/vapor and light liquid service, and pressure relief devices in gas/vapor service within a process unit that is located in the Alaskan North Slope are exempt from the routine monitoring requirements of §§ 60.482-2a(a)(1), 60.482-7a(a), and paragraph (b)(1) of this section.

(f) An owner or operator may use the following provisions instead of § 60.485a(e):

(1) Equipment is in heavy liquid service if the weight percent evaporated is 10 percent or less at 150 °C (302 °F) as determined by ASTM Method D86-96 (incorporated by reference as specified in § 60.17).

(2) Equipment is in light liquid service if the weight percent evaporated is greater than 10 percent at 150 °C (302 °F) as determined by ASTM Method D86-96 (incorporated by reference as specified in § 60.17).



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(g) An owner or operator may use the following provisions instead of § 60.485a(b)(2): A calibration drift assessment shall be performed, at a minimum, at the end of each monitoring day. Check the instrument using the same calibration gas(es) that were used to calibrate the instrument before use. Follow the procedures specified in Method 21 of appendix A-7 of this part, Section 10.1, except do not adjust the meter readout to correspond to the calibration gas value. Record the instrument reading for each scale used as specified in § 60.486a(e)(8). Divide these readings by the initial calibration values for each scale and multiply by 100 to express the calibration drift as a percentage. If any calibration drift assessment shows a negative drift of more than 10 percent from the initial calibration value, then all equipment monitored since the last calibration with instrument readings below the appropriate leak definition and above the leak definition multiplied by (100 minus the percent of negative drift/divided by 100) must be re-monitored. If any calibration drift assessment shows a positive drift of more than 10 percent from the initial calibration value, then, at the owner/operator's discretion, all equipment since the last calibration with instrument readings above the appropriate leak definition and below the leak definition multiplied by (100 plus the percent of positive drift/divided by 100) may be re-monitored.

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

004 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.5421]

Subpart OOOO - Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution
What are my additional recordkeeping requirements for my affected facility subject to VOC requirements for onshore natural gas processing plants?

a) You must comply with the requirements of paragraph (b) of this section in addition to the requirements of § 60.486a.

(b) The following recordkeeping requirements apply to pressure relief devices subject to the requirements of § 60.5401(b)(1) of this subpart.

(1) When each leak is detected as specified in § 60.5401(b)(2), a weatherproof and readily visible identification, marked with the equipment identification number, must be attached to the leaking equipment. The identification on the pressure relief device may be removed after it has been repaired.

(2) When each leak is detected as specified in § 60.5401(b)(2), the following information must be recorded in a log and shall be kept for 2 years in a readily accessible location:

(i) The instrument and operator identification numbers and the equipment identification number.

(ii) The date the leak was detected and the dates of each attempt to repair the leak.

(iii) Repair methods applied in each attempt to repair the leak.

(iv) "Above 500 ppm" if the maximum instrument reading measured by the methods specified in paragraph (a) of this section after each repair attempt is 500 ppm or greater.

(v) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.

(vi) The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown.

**SECTION D. Source Level Plan Approval Requirements**

- (vi) The expected date of successful repair of the leak if a leak is not repaired within 15 days.
 - (viii) Dates of process unit shutdowns that occur while the equipment is unrepaired.
 - (ix) The date of successful repair of the leak.
 - (x) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of § 60.482-4a(a). The designation of equipment subject to the provisions of § 60.482-4a(a) must be signed by the owner or operator.
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V. REPORTING REQUIREMENTS.

- # 005 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.5422]**
Subpart OOOO - Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution
What are my additional reporting requirements for my affected facility subject to VOC requirements for onshore natural gas processing plants?
- (a) You must comply with the requirements of paragraphs (b) and (c) of this section in addition to the requirements of § 60.487a(a), (b), (c)(2)(i) through (iv), and (c)(2)(vii) through (viii).
 - (b) An owner or operator must include the following information in the initial semiannual report in addition to the information required in § 60.487a(b)(1) through (4): Number of pressure relief devices subject to the requirements of § 60.5401(b) except for those pressure relief devices designated for no detectable emissions under the provisions of § 60.482-4a(a) and those pressure relief devices complying with § 60.482-4a(c).
 - (c) An owner or operator must include the following information in all semiannual reports in addition to the information required in § 60.487a(c)(2)(i) through (vi):
 - (1) Number of pressure relief devices for which leaks were detected as required in § 60.5401(b)(2); and
 - (2) Number of pressure relief devices for which leaks were not repaired as required in § 60.5401(b)(3).
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VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

VII. ADDITIONAL REQUIREMENTS.

- # 006 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.5400]**
Subpart OOOO - Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution
What equipment leak standards apply to affected facilities at an onshore natural gas processing plant?
- This section applies to the group of all equipment, except compressors, within a process unit.
- (a) You must comply with the requirements of §§ 60.482-1a(a), (b), and (d), 60.482-2a, and 60.482-4a through 60.482-11a, except as provided in § 60.5401.
 - (b) You may elect to comply with the requirements of §§ 60.483-1a and 60.483-2a, as an alternative.
 - (c) You may apply to the Administrator for permission to use an alternative means of emission limitation that achieves a reduction in emissions of VOC at least equivalent to that achieved by the controls required in this subpart according to the requirements of § 60.5402 of this subpart.

**SECTION D. Source Level Plan Approval Requirements**

(d) You must comply with the provisions of § 60.485a of this part except as provided in paragraph (f) of this section.

(e) You must comply with the provisions of §§ 60.486a and 60.487a of this part except as provided in §§ 60.5401, 60.5421, and 60.5422 of this part.

(f) You must use the following provision instead of § 60.485a(d)(1): Each piece of equipment is presumed to be in VOC service or in wet gas service unless an owner or operator demonstrates that the piece of equipment is not in VOC service or in wet gas service. For a piece of equipment to be considered not in VOC service, it must be determined that the VOC content can be reasonably expected never to exceed 10.0 percent by weight. For a piece of equipment to be considered in wet gas service, it must be determined that it contains or contacts the field gas before the extraction step in the process. For purposes of determining the percent VOC content of the process fluid that is contained in or contacts a piece of equipment, procedures that conform to the methods described in ASTM E169-93, E168-92, or E260-96 (incorporated by reference as specified in § 60.17) must be used.

007 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.5402]**Subpart OOOO - Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution****What are the alternative emission limitations for equipment leaks from onshore natural gas processing plants?**

(a) If, in the Administrator's judgment, an alternative means of emission limitation will achieve a reduction in VOC emissions at least equivalent to the reduction in VOC emissions achieved under any design, equipment, work practice or operational standard, the Administrator will publish, in the FEDERAL REGISTER, a notice permitting the use of that alternative means for the purpose of compliance with that standard. The notice may condition permission on requirements related to the operation and maintenance of the alternative means.

(b) Any notice under paragraph (a) of this section must be published only after notice and an opportunity for a public hearing.

(c) The Administrator will consider applications under this section from either owners or operators of affected facilities, or manufacturers of control equipment.

(d) The Administrator will treat applications under this section according to the following criteria, except in cases where the Administrator concludes that other criteria are appropriate:

(1) The applicant must collect, verify and submit test data, covering a period of at least 12 months, necessary to support the finding in paragraph (a) of this section.

(2) If the applicant is an owner or operator of an affected facility, the applicant must commit in writing to operate and maintain the alternative means so as to achieve a reduction in VOC emissions at least equivalent to the reduction in VOC emissions achieved under the design, equipment, work practice or operational standard.

008 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.5410]**Subpart OOOO - Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution****How do I demonstrate initial compliance with the standards for my gas well affected facility, centrifugal compressor, reciprocating compressor, pneumatic controller, storage vessel, equipment leaks, sweetening unit affected facilities, at onshore natural gas processing plants?**

You must determine initial compliance with the standards for each affected facility using the requirements in paragraphs (a) through (i) 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.

(a) – (e) N/A

(f) For affected facilities at onshore natural gas processing plants, initial compliance with the VOC requirements is demonstrated if you are in compliance with the requirements of §60.5400.

**SECTION D. Source Level Plan Approval Requirements**

(g) – (i) N/A

009 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.5415]

Subpart OOOO - Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution
How do I demonstrate continuous compliance with the standards for my gas well affected facility, my centrifugal compressor, stationary reciprocating compressor, pneumatic controller, storage vessel affected facilities, and my affected facilities at onshore natural gas processing plants?

(a) – (e) N/A

(f) For affected facilities at onshore natural gas processing plants, continuous compliance with VOC requirements is demonstrated if you are in compliance with the requirements of §60.5400.

(g) N/A

**SECTION E. Source Group Plan Approval Restrictions.**

Group Name: G01

Group Description: 40 CFR Part 60, Subpart OOOO

Sources included in this group

ID	Name
110	PROPANE REMOVAL SYSTEM VENTING
111	NATURAL GAS PROCESSING SYSTEM VENTING
112	SOURCES ADDED BY PA-C - VENTING
113	FRACTIONATOR TOWER AND 148 MMBTU/HR PROCESS HEATER
116	WV DEPROPANIZER VENTING
117	HOUSTON DEETHANIZER VENTING

I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

VII. ADDITIONAL REQUIREMENTS.

001 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The permittee shall comply with the requirements of 40 CFR Part 60, Subpart OOOO, promulgated on August 16, 2012, for Source IDs 110, 111, 112, 113, 116, and 117, within one year of the plan approval modification, revision date June 19, 2015.

**SECTION F. Alternative Operation Requirements.**

No Alternative Operations exist for this Plan Approval facility.

**SECTION G. Emission Restriction Summary.**

Source Id	Source Description
111	NATURAL GAS PROCESSING SYSTEM VENTING
Emission Limit	
4.000 Lbs/MMBTU	SOX
0.400 Lbs/MMBTU	TSP

Site Emission Restriction Summary

Emission Limit	Pollutant
0.040 gr/DRY FT3	TSP

**SECTION H. Miscellaneous.**

The emissions from all sources and associated air pollution control equipment located at this facility shall not equal or exceed any of the following on a 12-month rolling sum basis:

- (i) Nitrogen oxides (NO_x) – 100 tons.
- (ii) Carbon monoxide (CO) – 100 tons.
- (iii) Sulfur oxides (SO_x) – 100 tons.
- (iv) Particulate matter with an aerodynamic diameter less than 10 microns (PM₁₀) – 100 tons.
- (v) Particulate matter with an aerodynamic diameter less than 2.5 microns (PM_{2.5}) – 100 tons.
- (vi) Volatile organic compounds (VOCs) – 50 tons.
- (vii) Any individual hazardous air pollutant (HAP) – 10 tons.
- (viii) Total hazardous air pollutants (HAPs) – 25 tons.

Miscellaneous sources also to be installed under PA-63-00936F:

One (1) natural gas-fired regenerative heater, 5.5 MMBtu/hr



***** End of Report *****
