



**COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
AIR QUALITY PROGRAM**

**STATE ONLY OPERATING PERMIT**

Issue Date: October 13, 2020

Effective Date: October 27, 2020

Expiration Date: October 13, 2025

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 operate the air emission source(s) more fully described in this permit. This Facility is subject to all terms and conditions specified in this permit. Nothing in this permit 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 permit condition is set forth in brackets. All terms and conditions in this permit are federally enforceable unless otherwise designated.

**State Only Permit No: 63-00937**

Synthetic Minor

Federal Tax Id - Plant Code: 30-0528059-3

**Owner Information**

Name: MARKWEST LIBERTY MIDSTREAM & RESOURCES LLC

Mailing Address: 4600 J BARRY CT  
CANONSBURG, PA 15317

**Plant Information**

Plant: MARKWEST LIBERTY MIDSTREAM & RESOURCES/FULTON BOOSTER STA

Location: 63 Washington County 63944 Mount Pleasant Township

SIC Code: 1311 Mining - Crude Petroleum And Natural Gas

**Responsible Official**

Name: BRANDON BELFORD

Title: GM NE FIELD GATHERING

Phone: (724) 416 - 0523

**Permit Contact Person**

Name: ALLIE JUAREZ

Title: G&P ENGINEER I

Phone: (412) 815 - 8886

[Signature] \_\_\_\_\_

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



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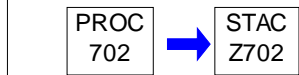
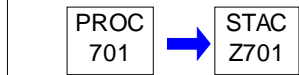
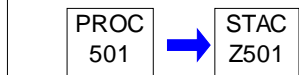
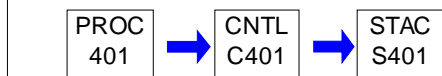
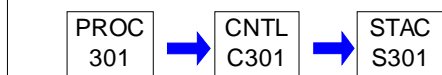
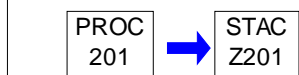
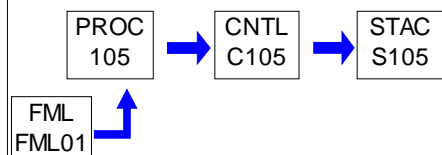
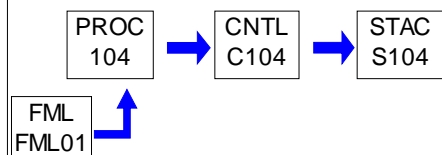
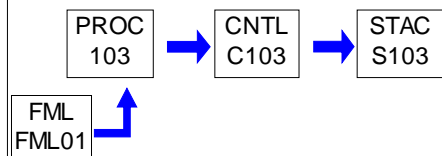
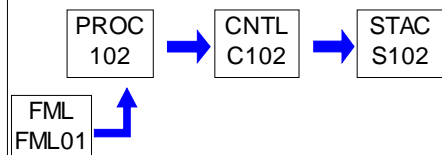
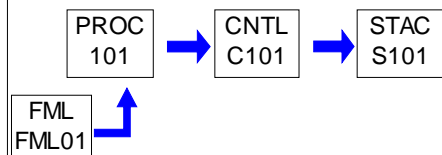
**SECTION A. Site Inventory List**

Source ID	Source Name	Capacity/Throughput	Fuel/Material
101	CATERPILLAR ENGINE G3516 LE (1340 HP)		
102	CATERPILLAR ENGINE G3516 LE (1340 HP)		
103	CATERPILLAR ENGINE G3516 LE (1340 HP)		
104	CATERPILLAR ENGINE G3516 LE (1340 HP)		
105	CATERPILLAR ENGINE G3516 LE (1340 HP)		
201	HEATERS/REBOILERS		
301	TWO 400 BBL CONDENSATE TANKS		
401	NATCO DEHYDRATOR		
501	PNEUMATIC DEVICES		
601	VENTING/BLOWDOWNS		
701	FUGITIVES		
702	CONDENSATE LOADOUT		
703	CRANKCASE VENTS		
801	PIGGING OPERATIONS		
C101	MIRATECH SP-ZES-30X31-12-XH1B2 CATALYSTS (OR EQUIVALENT)		
C102	MIRATECH SP-ZES-30X31-12-XH1B2 CATALYSTS (OR EQUIVALENT)		
C103	MIRATECH SP-ZES-30X31-12-XH1B2 CATALYSTS (OR EQUIVALENT)		
C104	MIRATECH SP-ZES-30X31-12-XH1B2 CATALYSTS (OR EQUIVALENT)		
C105	MIRATECH SP-ZES-30X31-12-XH1B2 CATALYSTS (OR EQUIVALENT)		
C401	DEHYDRATOR FLARE		
FML01	NATURAL GAS		
S101	ENGINE 101 STACK		
S102	ENGINE 102 STACK		
S103	ENGINE 103 STACK		
S104	ENGINE 104 STACK		
S105	ENGINE 105 STACK		
S301	CONDENSATE TANKS STACK		
S401	DEHYDRATOR STACK		
Z201	HEATERS/REBOILERS STACK		
Z501	PNEUMATIC DEVICES FUGITIVE EMISSIONS		
Z601	VENTING/BLOWDOWN EMISSIONS		
Z701	FUGITIVE EMISSIONS		
Z702	CONDENSATE LOADOUT EMISSIONS		
Z703	CRANKCASE EMISSIONS		
Z801	PIGGING OPERATIONS EMISSIONS		

**PERMIT MAPS**



## PERMIT MAPS





**PERMIT MAPS**

PROC  
703 → STAC  
Z703

PROC  
801 → STAC  
Z801

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

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

**#002 [25 Pa. Code § 127.446]****Operating Permit Duration.**

(a) This operating permit is issued for a fixed term of five (5) years and shall expire on the date specified on Page 1 of this permit.

(b) The terms and conditions of the expired permit shall automatically continue pending issuance of a new operating permit, provided the permittee has submitted a timely and complete application and paid applicable fees required under 25 Pa. Code Chapter 127, Subchapter I and the Department is unable, through no fault of the permittee, to issue or deny a new permit before the expiration of the previous permit.

**#003 [25 Pa. Code §§ 127.412, 127.413, 127.414, 127.446 & 127.703(b)&(c)]****Permit Renewal.**

(a) The permittee shall submit a timely and complete application for renewal of the operating permit to the appropriate Regional Air Program Manager. The application for renewal of the operating permit shall be submitted at least six (6) months and not more than 18 months before the expiration date of this permit.

(b) The application for permit renewal shall include the current permit number, a description of any permit revisions that occurred during the permit term, and any applicable requirements that were promulgated and not incorporated into the permit during the permit term. An application is complete if it contains sufficient information to begin processing the application, has the applicable sections completed and has been signed by a responsible official.

(c) The permittee shall submit with the renewal application a fee for the processing of the application and an additional annual administrative fee as specified in 25 Pa. Code § 127.703(b) and (c). The fees shall be made payable to "The Commonwealth of Pennsylvania - Clean Air Fund" and shall be for the amount specified in the following schedule specified in 25 Pa. Code § 127.703(b) and (c).

(1) Three hundred dollars for applications filed during the 2000-2004 calendar years.

(2) Three hundred seventy-five dollars for applications filed for the calendar years beginning in 2005.

(d) The renewal application shall also include submission of proof that the local municipality and county, in which the facility is located, have been notified in accordance with 25 Pa. Code § 127.413.

(e) The application for renewal of the operating permit shall also include submission of supplemental compliance review forms in accordance with the requirements of 25 Pa. Code § 127.412(b) and § 127.412(j).

(f) The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information as necessary to address any requirements that become applicable to the source after the permittee submits a complete application, but prior to the date the Department takes action on the permit application.

**#004 [25 Pa. Code § 127.703]****Operating Permit Fees under Subchapter I.**

(a) The permittee shall pay fees according to the following schedule specified in 25 Pa. Code § 127.703(b):

(1) Three hundred dollars for applications filed during the 2000-2004 calendar years.

(2) Three hundred seventy-five dollars for applications filed for the calendar years beginning in 2005.

This fee schedule shall apply to the processing of an application for an operating permit as well as the extension,

**SECTION B. General State Only Requirements**

modification, revision, renewal, and re-issuance of each operating permit or part thereof.

(b) The permittee shall pay an annual operating permit administrative fee according to the fee schedule established in 25 Pa. Code § 127.703(c).

(1) Two hundred fifty dollars for applications filed during the 1995-1999 calendar years.

(2) Three hundred dollars for applications filed during the 2000-2004 calendar years.

(3) Three hundred seventy-five dollars for applications filed during the years beginning in 2005.

(c) The applicable fees shall be made payable to "The Commonwealth of Pennsylvania - Clean Air Fund".

**#005 [25 Pa. Code §§ 127.450 (a)(4) and 127.464]****Transfer of Operating Permits.**

(a) This operating permit may not be transferred to another person, except in cases of transfer-of-ownership that are documented and approved by the Department.

(b) In accordance with 25 Pa. Code § 127.450(a)(4), a change in ownership of the source shall be treated as an administrative amendment if the Department determines that no other change in the permit is required and a written agreement has been submitted to the Department identifying the specific date of the transfer of permit responsibility, coverage and liability between the current and the new permittee and a compliance review form has been submitted to, and the permit transfer has been approved by, the Department.

(c) This operating permit is valid only for those specific sources and the specific source locations described in this permit.

**#006 [25 Pa. Code § 127.441 and 35 P.S. § 4008]****Inspection and Entry.**

(a) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Department or authorized representatives of the Department to perform the following:

(1) Enter at reasonable times upon the permittee's premises where a source is located or emissions related activity is conducted, or where records are kept under the conditions of this permit;

(2) Have access to and copy, at reasonable times, any records that are kept under the conditions of this permit;

(3) Inspect at reasonable times, any facilities, equipment including monitoring and air pollution control equipment, practices, or operations regulated or required under this permit;

(4) Sample or monitor, at reasonable times, any substances or parameters, for the purpose of assuring compliance with the permit or applicable requirements as authorized by the Clean Air Act, the Air Pollution Control Act, or the regulations promulgated under the Acts.

(b) 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 or regulations adopted thereunder including denying the Department access to a source at this facility. Refusal of entry or access may constitute grounds for permit revocation and assessment of criminal and/or civil penalties.

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

**#007 [25 Pa. Code §§ 127.441 & 127.444]****Compliance Requirements.**

(a) The permittee shall comply with the conditions of this operating permit. Noncompliance with this permit constitutes



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a violation of the Clean Air Act and the Air Pollution Control Act and is grounds for one or more of the following:

- (1) Enforcement action
- (2) Permit termination, revocation and reissuance or modification
- (3) Denial of a permit renewal application

(b) A person may not cause or permit the operation of a source which is subject to 25 Pa. Code Article III unless the source(s) and air cleaning devices identified in the application for the plan approval and operating permit and the plan approval issued for the source is operated and maintained in accordance with specifications in the applications and the conditions in the plan approval and operating permit issued by the Department. A person may not cause or permit the operation of an air contamination source subject to 25 Pa. Code Chapter 127 in a manner inconsistent with good operating practices.

(c) For purposes of Sub-condition (b) of this permit condition, the specifications in applications for plan approvals and operating permits are the physical configurations and engineering design details which the Department determines are essential for the permittee's compliance with the applicable requirements in this State-Only permit. Nothing in this sub-condition shall be construed to create an independent affirmative duty upon the permittee to obtain a predetermination from the Department for physical configuration or engineering design detail changes made by the permittee.

**#008 [25 Pa. Code § 127.441]****Need to Halt or Reduce Activity Not a Defense.**

It shall not be a defense for the permittee in an enforcement action that it was necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

**#009 [25 Pa. Code §§ 127.442(a) & 127.461]****Duty to Provide Information.**

(a) The permittee shall submit reports to the Department containing information the Department may prescribe relative to the operation and maintenance of each source at the facility.

(b) The permittee shall furnish to the Department, in writing, information that the Department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Department copies of records that the permittee is required to maintain in accordance with this permit.

**#010 [25 Pa. Code § 127.461]****Revising an Operating Permit for Cause.**

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

- (1) The permittee constructs or operates the source subject to the operating permit so that it is in violation of the Air Pollution Control Act, the Clean Air Act, the regulations thereunder, a plan approval, a permit or in a manner that causes air pollution.
- (2) 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.
- (3) The permittee has failed to submit a report required by the operating permit or an applicable regulation.
- (4) The EPA determines that the permit is not in compliance with the Clean Air Act or the regulations thereunder.

**#011 [25 Pa. Code §§ 127.450 & 127.462]****Operating Permit Modifications**

(a) The permittee is authorized to make administrative amendments, minor operating permit modifications and

**SECTION B. General State Only Requirements**

significant operating permit modifications, under this permit, as outlined below:

(b) Administrative Amendments. The permittee shall make administrative operating permit amendments (as defined in 25 Pa. Code § 127.450(a)), according to procedures specified in § 127.450 unless precluded by the Clean Air Act or its regulations.

(c) Minor Operating Permit Modifications. The permittee shall make minor operating permit modifications (as defined 25 Pa. Code § 121.1) in accordance with 25 Pa. Code § 127.462.

(d) Permit modifications which do not qualify as minor permit modifications under 25 Pa. Code § 127.541 will be treated as a significant operating permit revision subject to the public notification procedures in §§ 127.424 and 127.425.

**#012 [25 Pa. Code § 127.441]****Severability Clause.**

The provisions of this permit are severable, and if any provision of this permit is determined by a court of competent jurisdiction to be invalid or unenforceable, such a determination will not affect the remaining provisions of this permit.

**#013 [25 Pa. Code § 127.449]****De Minimis Emission Increases.**

(a) This permit authorizes de minimis emission increases in accordance with 25 Pa. Code § 127.449 so long as the permittee provides the Department with seven (7) days prior written notice before commencing any de minimis emissions increase. The written notice shall:

(1) Identify and describe the pollutants that will be emitted as a result of the de minimis emissions increase.

(2) Provide emission rates expressed in tons per year and in terms necessary to establish compliance consistent with any applicable requirement.

(b) The Department may disapprove or condition de minimis emission increases at any time.

(c) Except as provided below in (d), the permittee is authorized to make de minimis emission increases (expressed in tons per year) up to the following amounts without the need for a plan approval or prior issuance of a permit modification:

(1) Four tons of carbon monoxide from a single source during the term of the permit and 20 tons of carbon monoxide at the facility during the term of the permit.

(2) One ton of NO<sub>x</sub> from a single source during the term of the permit and 5 tons of NO<sub>x</sub> at the facility during the term of the permit.

(3) One and six-tenths tons of the oxides of sulfur from a single source during the term of the permit and 8.0 tons of oxides of sulfur at the facility during the term of the permit.

(4) Six-tenths of a ton of PM<sub>10</sub> from a single source during the term of the permit and 3.0 tons of PM<sub>10</sub> at the facility during the term of the permit. This shall include emissions of a pollutant regulated under Section 112 of the Clean Air Act unless precluded by the Clean Air Act, the regulations thereunder or 25 Pa. Code Article III.

(5) One ton of VOCs from a single source during the term of the permit and 5.0 tons of VOCs at the facility during the term of the permit. This shall include emissions of a pollutant regulated under Section 112 of the Clean Air Act unless precluded by the Clean Air Act, the regulations thereunder or 25 Pa. Code Article III.

(6) Other sources and classes of sources determined to be of minor significance by the Department.

(d) In accordance with § 127.14, the permittee is authorized to install the following minor sources without the need for a plan approval or permit modification:

**SECTION B. General State Only Requirements**

- (1) Air conditioning or ventilation systems not designed to remove pollutants generated or released from other sources.
- (2) Combustion units rated at 2,500,000 or less Btu per hour of heat input.
- (3) Combustion units with a rated capacity of less than 10,000,000 Btu per hour heat input fueled by natural gas supplied by a public utility or by commercial fuel oils which are No. 2 or lighter, viscosity less than or equal to 5.82 c St, and which meet the sulfur content requirements of 25 Pa. Code §123.22 (relating to combustion units). For purposes of this permit, commercial fuel oil shall be virgin oil which has no reprocessed, recycled or waste material added.
- (4) Space heaters which heat by direct heat transfer.
- (5) Laboratory equipment used exclusively for chemical or physical analysis.
- (6) Other sources and classes of sources determined to be of minor significance by the Department.
- (e) This permit does not authorize de minimis emission increases if the emissions increase would cause one or more of the following:
- (1) Increase the emissions of a pollutant regulated under Section 112 of the Clean Air Act except as authorized in Subparagraphs (c)(4) and (5) of this permit condition.
- (2) Subject the facility to the prevention of significant deterioration requirements in 25 Pa. Code Chapter 127, Subchapter D and/or the new source review requirements in Subchapter E.
- (3) Violate any applicable requirement of this permit, the Air Pollution Control Act, the Clean Air Act, or the regulations promulgated under either of the acts.
- (f) Emissions authorized under this permit condition shall be included in the monitoring, recordkeeping and reporting requirements of this permit.
- (g) Except for de minimis emission increases, installation of minor sources made pursuant to this permit condition and Plan Approval Exemptions under 25 Pa. Code § 127.14 (relating to exemptions), the permittee is prohibited from making changes or engaging in activities that are not specifically authorized under this permit without first applying for a plan approval. In accordance with § 127.14(b), a plan approval is not required for the construction, modification, reactivation, or installation of the sources creating the de minimis emissions increase.
- (h) The permittee may not meet de minimis emission threshold levels by offsetting emission increases or decreases at the same source.

**#014 [25 Pa. Code § 127.3]****Operational Flexibility.**

The permittee is authorized to make changes within the facility in accordance with the regulatory provisions outlined in 25 Pa. Code § 127.3 (relating to operational flexibility) to implement the operational flexibility requirements provisions authorized under Section 6.1(i) of the Air Pollution Control Act and the operational flexibility terms and conditions of this permit. The provisions in 25 Pa. Code Chapter 127 which implement the operational flexibility requirements include the following:

- (1) Section 127.14 (relating to exemptions)
- (2) Section 127.447 (relating to alternative operating scenarios)
- (3) Section 127.448 (relating to emissions trading at facilities with Federally enforceable emissions caps)
- (4) Section 127.449 (relating to de minimis emission increases)
- (5) Section 127.450 (relating to administrative operating permit amendments)

**SECTION B. General State Only Requirements**

(6) Section 127.462 (relating to minor operating permit modifications)

(7) Subchapter H (relating to general plan approvals and general operating permits)

**#015 [25 Pa. Code § 127.11]****Reactivation**

(a) The permittee may not reactivate a source that has been out of operation or production for at least one year unless the reactivation is conducted in accordance with a plan approval granted by the Department or in accordance with reactivation and maintenance plans developed and approved by the Department in accordance with 25 Pa. Code § 127.11a(a).

(b) A source which has been out of operation or production for more than five (5) years but less than 10 years may be reactivated and will not be considered a new source if the permittee satisfies the conditions specified in 25 Pa. Code § 127.11a(b).

**#016 [25 Pa. Code § 127.36]****Health Risk-based Emission Standards and Operating Practice Requirements.**

(a) When needed to protect public health, welfare and the environment from emissions of hazardous air pollutants from new and existing sources, the permittee shall comply with the health risk-based emission standards or operating practice requirements imposed by the Department, except as precluded by §§ 6.6(d)(2) and (3) of the Air Pollution Control Act [35 P.S. § 4006.6(d)(2) and (3)].

(b) A person challenging a performance or emission standard established by the Department has the burden to demonstrate that performance or emission standard does not meet the requirements of Section 112 of the Clean Air Act.

**#017 [25 Pa. Code § 121.9]****Circumvention.**

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 25 Pa. Code Article III, except that with prior approval of the Department, the device or technique may be used for control of malodors.

**#018 [25 Pa. Code §§ 127.402(d) & 127.442]****Reporting Requirements.**

(a) The permittee shall comply with the applicable reporting requirements of the Clean Air Act, the regulations thereunder, the Air Pollution Control Act and 25 Pa. Code Article III including Chapters 127, 135 and 139.

(b) The permittee shall submit reports to the Department containing information the Department may prescribe relative to the operation and maintenance of any air contamination source.

(c) Reports, test data, monitoring data, notifications and requests for renewal of the permit shall be submitted to the:

Regional Air Program Manager  
PA Department of Environmental Protection  
(At the address given in the permit transmittal letter, or otherwise notified)

(d) Any records or information including applications, forms, or reports submitted pursuant to this permit condition shall contain a certification by a responsible official as to truth, accuracy and completeness. The certifications submitted under this permit shall require a responsible official of the facility to certify that based on information and belief formed after reasonable inquiry, the statements and information in the documents are true, accurate and complete.

(e) Any records, reports or information submitted to the Department shall be available to the public except for such

**SECTION B. General State Only Requirements**

records, reports or information which meet the confidentiality requirements of § 4013.2 of the Air Pollution Control Act and §§ 112(d) and 114(c) of the Clean Air Act. The permittee may not request a claim of confidentiality for any emissions data generated for the facility.

**#019 [25 Pa. Code §§ 127.441(c) & 135.5]****Sampling, Testing and Monitoring Procedures.**

(a) The permittee shall comply with the monitoring, recordkeeping or reporting requirements of 25 Pa. Code Chapter 139 and the other applicable requirements of 25 Pa. Code Article III and additional requirements related to monitoring, reporting and recordkeeping required by the Clean Air Act and the regulations thereunder including the Compliance Assurance Monitoring requirements of 40 CFR Part 64, where applicable.

(b) Unless alternative methodology is required by the Clean Air Act and regulations adopted thereunder, sampling, testing and monitoring required by or used by the permittee to demonstrate compliance with any applicable regulation or permit condition shall be conducted in accordance with the requirements of 25 Pa. Code Chapter 139.

**#020 [25 Pa. Code §§ 127.441(c) and 135.5]****Recordkeeping.**

(a) The permittee shall maintain and make available, upon request by the Department, the following records of monitored information:

- (1) The date, place (as defined in the permit) and time of sampling or measurements.
- (2) The dates the analyses were performed.
- (3) The company or entity that performed the analyses.
- (4) The analytical techniques or methods used.
- (5) The results of the analyses.
- (6) The operating conditions as existing at the time of sampling or measurement.

(b) The permittee shall retain records of any required monitoring data and supporting information for at least five (5) years from the date of the monitoring, sample, measurement, report or application. Supporting information includes the calibration data and maintenance records and original strip-chart recordings for continuous monitoring instrumentation, and copies of reports required by the permit.

(c) The permittee shall maintain and make available to the Department upon request, records including computerized records that may be necessary to comply with the reporting, recordkeeping and emission statement requirements in 25 Pa. Code Chapter 135 (relating to reporting of sources). In accordance with 25 Pa. Code Chapter 135, § 135.5, such records may include records of production, fuel usage, maintenance of production or pollution control equipment or other information determined by the Department to be necessary for identification and quantification of potential and actual air contaminant emissions.

**#021 [25 Pa. Code § 127.441(a)]****Property Rights.**

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

**#022 [25 Pa. Code § 127.447]****Alternative Operating Scenarios.**

The permittee is authorized to make changes at the facility to implement alternative operating scenarios identified in this permit in accordance with 25 Pa. Code § 127.447.

**SECTION B. General State Only Requirements****#023 [25 Pa. Code §135.3]****Reporting**

(a) If the facility is a Synthetic Minor Facility, the permittee shall submit by March 1 of each year an annual emissions report for the preceding calendar year. The report shall include information for all active 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. All air emissions from the facility should be estimated and reported.

(b) A source owner or operator of a Synthetic Minor Facility may request an extension of time from the Department for the filing of an annual emissions report, and the Department may grant the extension for reasonable cause.

**#024 [25 Pa. Code §135.4]****Report Format**

If applicable, the emissions reports shall contain sufficient information to enable the Department to complete its emission inventory. Emissions reports shall be made by the source owner or operator in a format specified by the Department.

**SECTION C. Site Level Requirements****I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §121.7]****Prohibition of air pollution.**

No person may permit air pollution as that term is defined in the act.

**# 002 [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) Blasting in open pit mines. Emissions from drilling are not considered as emissions from blasting.

(8) Not applicable.

(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) [See Work Practice Standards.]

(d) Not applicable.

**# 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 §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.

**SECTION C. Site Level Requirements****# 004 [25 Pa. Code §123.31]****Limitations**

(a) Not applicable.

(b) A person 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 the property of the person on whose land the source is being operated.

(c) Not applicable.

**# 005 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Facility-wide emissions of the pollutants listed below for all air contamination sources and air cleaning devices at this facility shall not equal or exceed the following limits on a 12-month rolling basis:

99.0 TPY NO<sub>x</sub>

39.0 TPY CO

49.4 TPY VOC

3.0 TPY PM-10

3.0 TPY PM-2.5

11.3 TPY HAP (total)

5.4 TPY HCHO (formaldehyde)

**# 006 [25 Pa. Code §129.14]****Open burning operations**

(a) Air basins. N/A

(b) 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.





## SECTION C. Site Level Requirements

(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).

(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.

## II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

**SECTION C. Site Level Requirements****III. MONITORING REQUIREMENTS.****# 007 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The Owner/Operator shall conduct a fractional natural gas analysis performed on the inlet natural gas to the facility at a minimum of once per quarter of each calendar year.

**# 008 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

A facility-wide inspection shall be conducted at a minimum of once per day when the Facility is visited by the Owner/Operator. The facility-wide inspection shall be conducted for the presence of the following:

- a. Visible stack emissions;
- b. Fugitive emissions; and
- c. Potentially objectionable odors at the property line.

These observations are to ensure continued compliance with source-specific visible emission limitations, fugitive emissions prohibited under 25 Pa. Code §123.1 or §123.2, and potentially objectionable odors prohibited under 25 Pa. Code §123.31. Observations for visible stack emissions shall be conducted during daylight hours and all observations shall be conducted while sources are in operation. If visible stack emissions, fugitive emissions, or potentially objectionable odors are apparent, the Owner/Operator shall take corrective action.

**IV. RECORDKEEPING REQUIREMENTS.****# 009 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Records of each visible stack, fugitive, and potentially objectionable odor inspection shall be maintained in a log and at a minimum include the date, time, name and title of the observer, along with any corrective action taken as a result. These records shall be kept on site or at an alternative location acceptable to the Department for a period of five years and made available to the Department upon request.

**# 010 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The Owner/Operator shall maintain the following comprehensive and accurate records:

- a. Monthly hours of operation for each engine and each flare.
- b. Monthly fuel consumption for each engine and each flare.
- c. Records including a description of testing methods, results, all engine operating data collected during tests, and a copy of the calculations performed to determine compliance with emission standards for each internal combustion engine.
- d. Copies of the report that demonstrates that the engines were operating at rated bhp and speed conditions during performance testing.
- e. Copies of the manufacturer's recommended maintenance schedule for all air contamination sources and air cleaning devices including each engine, dehydrator, catalyst, flare, and VRU.
- f. Records of any maintenance conducted on each engine, dehydrator, catalyst, flare, their hatches, and VRU.
- g. Records of catalyst inlet and outlet temperature readings performed at a minimum of once each month on each Caterpillar G3516LE engine operated during the month.
- h. The dehydrator VOC and benzene emissions using GRI-GLYCalc data from no less recent than the previous year if the natural gas composition has changed or an alternative method approved by the Department.

**SECTION C. Site Level Requirements**

- i. Records of actual throughput per day and the glycol circulation rate for the dehydrator.
- j. Records of a fractional natural gas analysis performed on the inlet natural gas to the facility at a minimum of once per quarter of each calendar year.
- k. Records of the date, time, and approximate duration of each blowdown and emergency shutdown at the facility.
- l. Records of facility-wide inspections for visible stack, fugitive, and potentially objectionable odors that include the date, time, name, and title of the observer, along with any corrective action taken as a result.
- m. Records of any leak detected and associated repair activity through the leak detection and repair or maintenance program.
- n. Facility-wide 12-month rolling totals of the following pollutants: NO<sub>x</sub>, CO, VOC, SO<sub>x</sub>, PM-10, PM-2.5, HAPs, and greenhouse gases as CO<sub>2</sub> equivalent (CO<sub>2e</sub>).

**# 011 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

All logs and required records shall be maintained on site or at an alternative location acceptable to the Department for a minimum of five years and shall be made available to the Department upon request.

**V. REPORTING REQUIREMENTS.****# 012 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

- (a) The permittee shall report malfunctions, emergencies or incidents of excess emissions to the Department. A malfunction is any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. An emergency is any situation arising from sudden and reasonably unforeseeable events beyond the control of the owner or operator of a facility which requires immediate corrective action to restore normal operation and which causes the emission source to exceed emissions, due to unavoidable increases in emissions attributable to the situation. An emergency shall not include situations caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error.
- (b) When the malfunction, emergency or incident of excess emissions poses an imminent danger to the public health, safety, welfare, or environment, it shall be reported to the Department and the County Emergency Management Agency by telephone within one (1) hour after the discovery of the malfunction, emergency or incident of excess emissions. The owner or operator shall submit a written or emailed report of instances of such malfunctions, emergencies or incidents of excess emissions to the Department within three (3) business days of the telephone report.
- (c) The report shall describe the following:
  - 1. name, permit or authorization number, and location of the facility,
  - 2. nature and cause of the malfunction, emergency or incident,
  - 3. date and time when the malfunction, emergency or incident was first observed,
  - 4. expected duration of excess emissions,
  - 5. estimated rate of emissions,
  - 6. corrective actions or preventative measures taken.
- (d) Any malfunction, emergency or incident of excess emissions that is not subject to the notice requirements of paragraph (b) of this condition shall be reported to the Department by telephone within 24 hours (or by 4:00 PM of the next business day, whichever is later) of discovery and in writing or by e-mail within five (5) business days of discovery. The report shall contain the same information required by paragraph (c), and any permit specific malfunction reporting requirements.
- (e) During an emergency an owner or operator may continue to operate the source at their discretion provided they submit justification for continued operation of a source during the emergency and follow all the notification and reporting

**SECTION C. Site Level Requirements**

requirements in accordance with paragraphs (b)-(d), as applicable, including any permit specific malfunction reporting requirements.

(f) Reports regarding malfunctions, emergencies or incidents of excess emissions shall be submitted to the appropriate DEP Regional Office Air Program Manager.

(g) Any emissions resulted from malfunction or emergency are to be reported in the annual emissions inventory report, if the annual emissions inventory report is required by permit or authorization.

**# 013 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4]****Subpart A - General Provisions****Address.**

Select air contamination sources at this facility, where applicable, are subject to New Source Performance Standards for Stationary Spark Ignition Internal Combustion Engines (40 CFR Part 60 Subpart JJJJ); National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities (40 CFR Part 63 Subpart HH); and Stationary Reciprocating Internal Combustion Engines (40 CFR Part 63 Subpart ZZZZ). In accordance with 40 CFR §60.4 and 40 CFR §63.9, copies of all requests, reports, applications, submittals and other communications regarding the affected facilities shall be forwarded to both EPA and the Department at the addresses listed below unless otherwise noted.

Associate Director  
Office of Air Enforcement and Compliance Assistance 3AP20  
US EPA Region III  
1650 Arch Street  
Philadelphia, PA 19103-2029

Pennsylvania Department of Environmental Protection  
Southwest Regional Office  
Air Quality Program  
400 Waterfront Drive  
Pittsburgh, PA 15222  
412-442-4000

**# 014 [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. 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.****# 015 [25 Pa. Code §123.1]****Prohibition of certain fugitive emissions**

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.

**SECTION C. Site Level Requirements**

(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.

**# 016 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

1. The owner or operator of the natural gas compression and/or processing facility shall, at a minimum, on a monthly basis perform a leak detection and repair program that includes audible, visual, and olfactory ("AVO") inspections.

2. Within 180 calendar days after the initial startup of a source, the owner or operator of the facility shall at a minimum, on a quarterly basis, use forward looking infrared ("FLIR") cameras or other leak detection monitoring devices approved by the Department for the detection of fugitive leaks. The Department may grant an extension for use of a FLIR camera upon receipt of a written request from the owner or operator of the facility documenting the justification for the requested extension.

3. If any leak is detected, the owner or operator of the facility shall repair the leak as expeditiously as practicable, but no later than fifteen (15) calendar days after the leak is detected, except as provided in 40 CFR §§ 60.482- 60.489. The owner or operator shall record each leak detected and the associated repair activity. The records shall be retained for a minimum of five (5) years and shall be made available to the Department upon request.

[Condition derived from 2015 GP-5 Section H.]

**# 017 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

All air contamination sources and air cleaning devices authorized under this State-Only Operating Permit shall be operated per the manufacturer's specifications and maintained according to the manufacturer's maintenance schedule. Manufacturer's specifications include, but are not limited to, the following:

a. Inlet temperature for the Miratech SP-ZES-30x31-12-XH1B2 catalytic converters (or equivalent) installed on the Caterpillar G3516LE engines shall be maintained at a minimum of 750°F under all operating conditions excluding startup, shutdown, and malfunction.

b. The Miratech SP-ZES-30x31-12-XH1B2 catalytic converters (or equivalent) installed on the Caterpillar G3516LE engines shall be operated with automatic air/fuel ratio controllers.

**# 018 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The Owner/Operator shall minimize blowdown gas generated as a result of equipment maintenance and emergency shutdowns to the extent practical.

**VII. ADDITIONAL REQUIREMENTS.****# 019 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Each quarterly fractional natural gas analysis performed on the inlet natural gas to the facility shall be evaluated for impacts on the actual emissions from this facility.

**# 020 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

If, at any time, the Department has cause to believe that air contaminant emissions from the sources listed in this State-Only Operating Permit may be in excess of the limitations specified in, or established pursuant to this State-Only 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

**SECTION C. Site Level Requirements**

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.

**VIII. COMPLIANCE CERTIFICATION.**

No additional compliance certifications exist except as provided in other sections of this permit including Section B (relating to State Only General Requirements).

**IX. COMPLIANCE SCHEDULE.**

No compliance milestones exist.

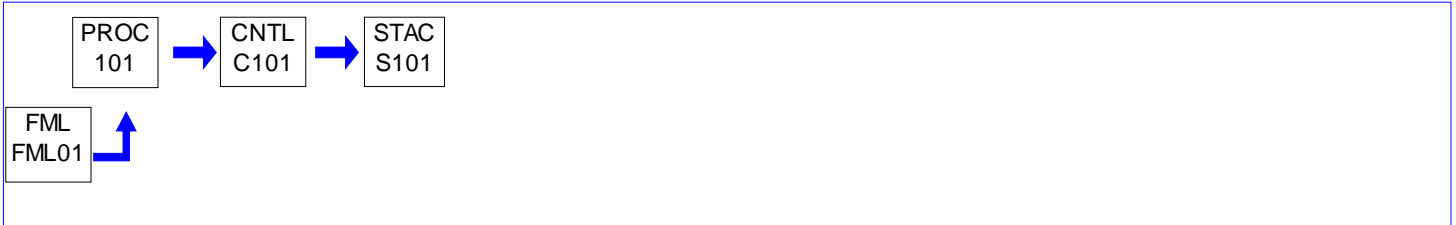
**SECTION D. Source Level Requirements**

Source ID: 101

Source Name: CATERPILLAR ENGINE G3516 LE (1340 HP)

Source Capacity/Throughput:

Conditions for this source occur in the following groups: GROUP 01  
GROUP 02

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (State Only 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 permit including Section B (State Only 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 permit including Section B (State Only 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 permit including Section B (State Only 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 permit including Section B (State Only 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 permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

**VII. ADDITIONAL REQUIREMENTS.**

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

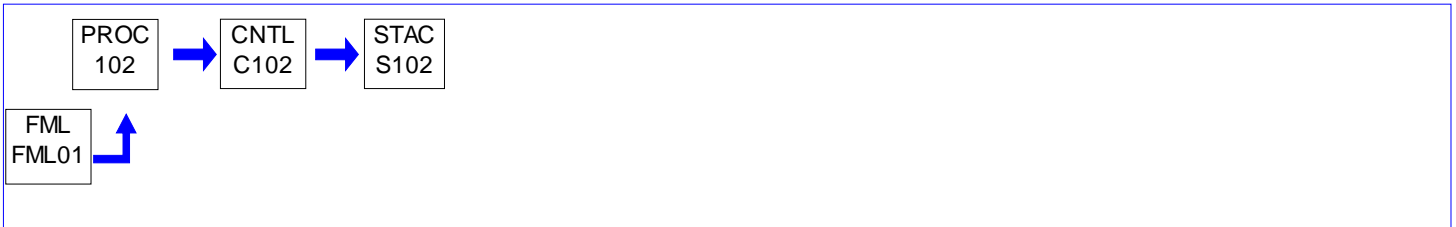
**SECTION D. Source Level Requirements**

Source ID: 102

Source Name: CATERPILLAR ENGINE G3516 LE (1340 HP)

Source Capacity/Throughput:

Conditions for this source occur in the following groups: GROUP 01  
GROUP 02

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (State Only 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 permit including Section B (State Only 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 permit including Section B (State Only 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 permit including Section B (State Only 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 permit including Section B (State Only 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 permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

**VII. ADDITIONAL REQUIREMENTS.**

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).



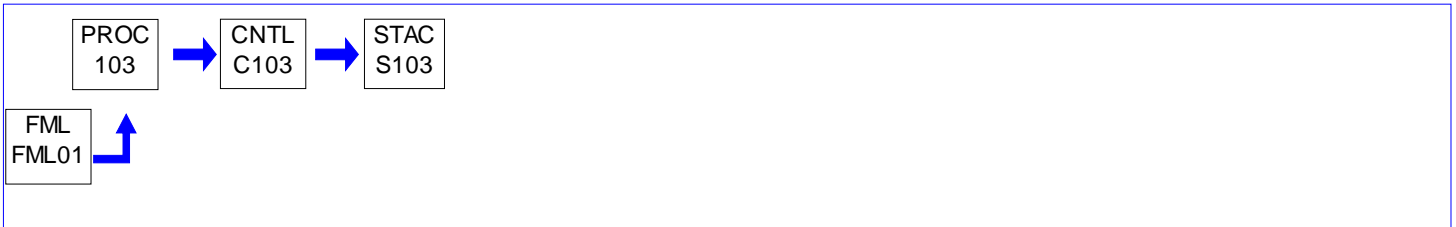
**SECTION D. Source Level Requirements**

Source ID: 103

Source Name: CATERPILLAR ENGINE G3516 LE (1340 HP)

Source Capacity/Throughput:

Conditions for this source occur in the following groups: GROUP 01  
GROUP 02

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (State Only 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 permit including Section B (State Only 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 permit including Section B (State Only 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 permit including Section B (State Only 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 permit including Section B (State Only 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 permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

**VII. ADDITIONAL REQUIREMENTS.**

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

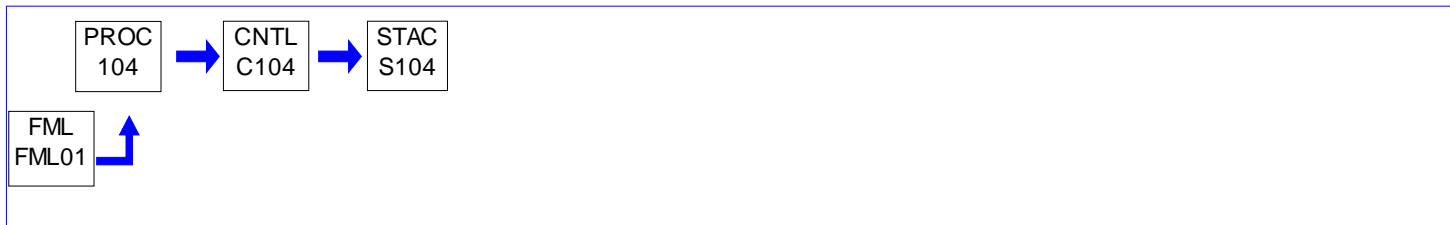
**SECTION D. Source Level Requirements**

Source ID: 104

Source Name: CATERPILLAR ENGINE G3516 LE (1340 HP)

Source Capacity/Throughput:

Conditions for this source occur in the following groups: GROUP 01  
GROUP 02

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (State Only 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 permit including Section B (State Only 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 permit including Section B (State Only 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 permit including Section B (State Only 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 permit including Section B (State Only 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 permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

**VII. ADDITIONAL REQUIREMENTS.**

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

**SECTION D. Source Level Requirements**

Source ID: 105

Source Name: CATERPILLAR ENGINE G3516 LE (1340 HP)

Source Capacity/Throughput:

Conditions for this source occur in the following groups: GROUP 02

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (State Only 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 permit including Section B (State Only 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 permit including Section B (State Only 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 permit including Section B (State Only 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 permit including Section B (State Only 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 permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

**VII. ADDITIONAL REQUIREMENTS.**

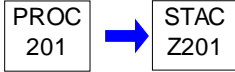
No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

**SECTION D. Source Level Requirements**

Source ID: 201

Source Name: HEATERS/REBOILERS

Source Capacity/Throughput:

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

**II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

**III. MONITORING REQUIREMENTS.**

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

**IV. RECORDKEEPING REQUIREMENTS.**

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

**VI. WORK PRACTICE REQUIREMENTS.**

No additional work practice requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

**VII. ADDITIONAL REQUIREMENTS.**

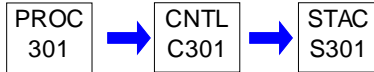
No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

**SECTION D. Source Level Requirements**

Source ID: 301

Source Name: TWO 400 BBL CONDENSATE TANKS

Source Capacity/Throughput:

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

**II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

**III. MONITORING REQUIREMENTS.**

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

**IV. RECORDKEEPING REQUIREMENTS.****# 001 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The Owner/Operator shall maintain the following records for this air contamination source:

- a.) Records of any maintenance conducted on each VRU; and
- b.) Records of any maintenance conducted on the thief hatches in accordance with the manufacturer's recommended maintenance schedule.
- c.) Records of total throughput through the condensate tanks (by volume) on a 12-month rolling basis.

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

**VI. WORK PRACTICE REQUIREMENTS.****# 002 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Per the March 2013 Administrative Settlement Agreement and Order on Consent between the U.S. EPA Region III and MarkWest, MarkWest shall ensure that all storage and/or condensate tanks at this facility have, at a minimum, 8 inch thief hatches and pressure relief valves. Maintenance of the thief hatches shall be conducted in accordance with the manufacturer's recommended maintenance schedule.

**# 003 [25 Pa. Code §129.57]****Storage tanks less than or equal to 40,000 gallons capacity containing VOCs**

The provisions of this section shall apply to above ground stationary storage tanks with a capacity equal to or greater than 2,000 gallons which contain volatile organic compounds with vapor pressure greater than 1.5 psia (10.5 kilopascals) under actual storage conditions. Storage tanks covered under this section 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



## SECTION D. Source Level Requirements

National Fire Prevention Association guidelines or other national consensus standards acceptable to the Department. Section 129.56(g) (relating to storage tanks greater than 40,000 gallons capacity containing volatile organic compounds) applies to this section. Petroleum liquid storage vessels which are used to store produced crude oil and condensate prior to lease custody transfer shall be exempt from the requirements of this section.

### VII. ADDITIONAL REQUIREMENTS.

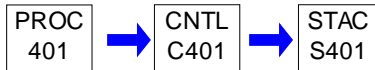
No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

**SECTION D. Source Level Requirements**

Source ID: 401

Source Name: NATCO DEHYDRATOR

Source Capacity/Throughput:

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §123.21]****General**

(a) This section applies to sources except those subject to other provisions of this article, with respect to the control of sulfur compound emissions.

(b) No person may permit the emission into the outdoor atmosphere of sulfur oxides from a source in a manner that the concentration of the sulfur oxides, expressed as SO<sub>2</sub>, in the effluent gas exceeds 500 parts per million, by volume, dry basis.

**# 002 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Visible emissions from the flare stack shall not exceed the following limitations:

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

[Condition derived from the Department's 2006 version of the GP-5, Section B(v).]

**# 003 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Per Section IV, Paragraph 13 of the April 24, 2018 Consent Decree, the replacement enclosed air-assisted flare system shall, at a minimum, include a 3-horsepower blower (with a variable frequency drive), a single point burner tip, a gas enrichment stream and shutdown/startup control logic panels, and shall raise regenerator off-gas Btu value to ensure a clean burn. The flare shall achieve a minimum 98% destruction and removal efficiency ("DRE"). [See Civil Action No. 2:18-cv-00520-LPL.]

**II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

**III. MONITORING REQUIREMENTS.**

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

**IV. RECORDKEEPING REQUIREMENTS.****# 004 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.774]****Subpart HH - National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities Recordkeeping requirements.**

Recordkeeping requirements.

**SECTION D. Source Level Requirements**

a. - c. N/A

d.

1) An owner or operator of a glycol dehydration unit that meets the exemption criteria in §63.764(e)(1)(i) or §63.764(e)(1)(ii) shall maintain the records specified in paragraph (d)(1)(i) or paragraph (d)(1)(ii) of this section, as appropriate, for that glycol dehydration unit.

i. The actual annual average natural gas throughput (in terms of natural gas flowrate to the glycol dehydration unit per day) as determined in accordance with §63.772(b)(1), or

ii. The actual average benzene emissions (in terms of benzene emissions per year) as determined in accordance with §63.772(b)(2).

2) N/A

e. - f. N/A

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

**VI. WORK PRACTICE REQUIREMENTS.****# 005 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

A glycol dehydrator using a flare as an air cleaning device shall ensure destruction of VOC emissions to the flare stack by maintaining the heat content of the flare gas above 300 Btu/scf. The owner or operator shall document daily visual observations of the continuous presence of a flame. Alternatively, the owner or operator may equip the flare with a heat sensing monitoring device with a continuous recorder that indicates the continuous ignition of the pilot flame. The flare shall be designed and operated in accordance with the applicable requirements in 40 CFR §60.18.

[Condition derived from the Department's 2015 version of the GP-5, Section F(2)(c).]

**VII. ADDITIONAL REQUIREMENTS.****# 006 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.760]****Subpart HH - National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities Applicability and designation of affected source.**

The tri ethylene glycol dehydrator is subject to 40 CFR Part 63 Subpart HH – National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities.

**# 007 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.761]****Subpart HH - National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities Definitions.**

All terms used in 40 CFR Part 63 Subpart HH shall have the meaning given in 40 CFR §63.761 or else in the Clean Air Act and 40 CFR Part 63 Subpart A.

**# 008 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.772]****Subpart HH - National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities Test methods, compliance procedures, and compliance demonstrations.**

Test methods, compliance procedures, and compliance demonstrations.



**SECTION D. Source Level Requirements**

a. N/A

b. Determination of glycol dehydration unit flowrate or benzene emissions. The procedures of this paragraph shall be used by an owner or operator to determine glycol dehydration unit natural gas flowrate or benzene emissions to meet the criteria for an exemption from control requirements under §63.764(e)(1).

1) The determination of actual flowrate of natural gas to a glycol dehydration unit shall be made using the procedures of either paragraph (b)(1)(i) or (b)(1)(ii) of this section.

i. The owner or operator shall install and operate a monitoring instrument that directly measures natural gas flowrate to the glycol dehydration unit with an accuracy of plus or minus 2 percent or better. The owner or operator shall convert annual natural gas flowrate to a daily average by dividing the annual flowrate by the number of days per year the glycol dehydration unit processed natural gas.

ii. The owner or operator shall document, to the Administrator's satisfaction, that the actual annual average natural gas flowrate to the glycol dehydration unit is less than 85 thousand standard cubic meters per day.

2) The determination of actual average benzene emissions from a glycol dehydration unit shall be made using the procedures of either paragraph (b)(2)(i) or (b)(2)(ii) of this section. Emissions shall be determined either uncontrolled, or with federally enforceable controls in place.

i. The owner or operator shall determine actual average benzene emissions using the model GRI-GLYCalc™, Version 3.0 or higher, and the procedures presented in the associated GRI-GLYCalc™ Technical Reference Manual. Inputs to the model shall be representative of actual operating conditions of the glycol dehydration unit and may be determined using the procedures documented in the Gas Research Institute (GRI) report entitled "Atmospheric Rich/Lean Method for Determining Glycol Dehydrator Emissions" (GRI-95/0368.1); or

ii. The owner or operator shall determine an average mass rate of benzene emissions in kilograms per hour through direct measurement using the methods in §63.772(a)(1)(i) or (ii), or an alternative method according to §63.7(f). Annual emissions in kilograms per year shall be determined by multiplying the mass rate by the number of hours the unit is operated per year. This result shall be converted to megagrams per year.

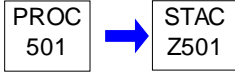
c. - g. N/A

**SECTION D. Source Level Requirements**

Source ID: 501

Source Name: PNEUMATIC DEVICES

Source Capacity/Throughput:

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

**II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

**III. MONITORING REQUIREMENTS.**

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

**IV. RECORDKEEPING REQUIREMENTS.**

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

**VI. WORK PRACTICE REQUIREMENTS.**

No additional work practice requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

**VII. ADDITIONAL REQUIREMENTS.**

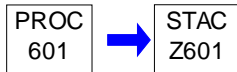
No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

**SECTION D. Source Level Requirements**

Source ID: 601

Source Name: VENTING/BLOWDOWNS

Source Capacity/Throughput:

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

**II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

**III. MONITORING REQUIREMENTS.**

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

**IV. RECORDKEEPING REQUIREMENTS.****# 001 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The Owner/Operator shall maintain records of the date, time, approximate volume of natural gas released, and approximate duration of each blowdown and emergency shutdown at the facility.

**V. REPORTING REQUIREMENTS.****# 002 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

MarkWest shall report each emergency shutdown (ESD) event that occurs at this facility in accordance with the malfunction reporting requirements of Section C, Condition #013 of this operating permit.

**VI. WORK PRACTICE REQUIREMENTS.**

No additional work practice requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

**VII. ADDITIONAL REQUIREMENTS.**

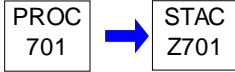
No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

**SECTION D. Source Level Requirements**

Source ID: 701

Source Name: FUGITIVES

Source Capacity/Throughput:

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

**II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

**III. MONITORING REQUIREMENTS.**

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

**IV. RECORDKEEPING REQUIREMENTS.**

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

**VI. WORK PRACTICE REQUIREMENTS.**

No additional work practice requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

**VII. ADDITIONAL REQUIREMENTS.**

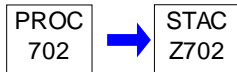
No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

**SECTION D. Source Level Requirements**

Source ID: 702

Source Name: CONDENSATE LOADOUT

Source Capacity/Throughput:

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

**II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

**III. MONITORING REQUIREMENTS.**

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

**IV. RECORDKEEPING REQUIREMENTS.****# 001 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The Owner/Operator shall maintain records of the volume of condensate loaded out from this facility on a 12-month rolling basis.

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

**VI. WORK PRACTICE REQUIREMENTS.**

No additional work practice requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

**VII. ADDITIONAL REQUIREMENTS.**

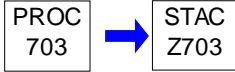
No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

**SECTION D. Source Level Requirements**

Source ID: 703

Source Name: CRANKCASE VENTS

Source Capacity/Throughput:

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

**II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

**III. MONITORING REQUIREMENTS.**

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

**IV. RECORDKEEPING REQUIREMENTS.**

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

**VI. WORK PRACTICE REQUIREMENTS.**

No additional work practice requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

**VII. ADDITIONAL REQUIREMENTS.**

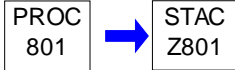
No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

**SECTION D. Source Level Requirements**

Source ID: 801

Source Name: PIGGING OPERATIONS

Source Capacity/Throughput:

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

**II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

**III. MONITORING REQUIREMENTS.**

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

**IV. RECORDKEEPING REQUIREMENTS.****# 001 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

For each pigging operation, the owner or operator shall maintain the following records, including information on:

- (a) The identification, location, and date of construction of each pig launcher or receiver;
- (b) Records of each pigging operation including the identification of the pig chamber used, the date and time of the pigging operation, and the type and volume of liquids cleared;
- (c) The launcher or receiver pressure prior to venting to the atmosphere, and prior to routing emissions to a flare, where applicable;
- (d) Gas composition data representative of the composition of gas at the facility.
- (e) The emissions calculation for each pig chamber, using the Department's spreadsheet found at <http://files.dep.state.pa.us/> or other equivalent method.

**V. REPORTING REQUIREMENTS.****# 002 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The emissions from each pigging operation conducted during the reporting period must be included in the emissions inventory report as specified in Section B, Condition #023 of this operating permit.

For purposes of compliance with the Consent Decree, Mark West shall calculate the mass of VOC emissions from pigging operations at facilities listed in Appendices 1 through 5 using the Real Gas Law multiplied by a factor of 1.2. This facility is included in the Appendices of the Consent Decree.

[Additional authority derived from United States v. MarkWest Liberty Midstream & Resources, L.L.C.No. 2:18-cv-00529-LPL (W.D. Pa. April 24, 2018) consent decree.]

**SECTION D. Source Level Requirements****VI. WORK PRACTICE REQUIREMENTS.****# 003 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

For each launcher or receiver located at this facility, MarkWest shall install and use liquid containers with grounded steel receptacles that are covered at all times when not in use.

[Authority derived from United States v. MarkWest Liberty Midstream & Resources, L.L.C.No. 2:18-cv-00529-LPL (W.D. Pa. April 24, 2018) consent decree.]

**# 004 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The owner or operator that conducts pigging operations shall employ best management practices to minimize the liquids present in the pig receiver chamber and to minimize emissions from the pig receiver chamber. These best management practices shall include, but not be limited to, the following:

- 1.) Connecting each high-pressure pig launcher and receiver by jumper lines to a low-pressure gathering line;
- 2.) Operating jumper lines to depressurize such launcher and receivers prior to opening the launcher or receiver hatch;
- 3.) Installing and using pig ramps in pig receivers;
- 4.) Installing liquids drain; and
- 5.) Using ball valve type chambers or multiple pig chambers when appropriate.

**VII. ADDITIONAL REQUIREMENTS.**

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).



**SECTION E. Source Group Restrictions.**

Group Name: GROUP 01

Group Description: Engines subject to Subpart JJJJ and Subpart ZZZZ

**Sources included in this group**

ID	Name
101	CATERPILLAR ENGINE G3516 LE (1340 HP)
102	CATERPILLAR ENGINE G3516 LE (1340 HP)
103	CATERPILLAR ENGINE G3516 LE (1340 HP)
104	CATERPILLAR ENGINE G3516 LE (1340 HP)

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

**II. TESTING REQUIREMENTS.**

**# 001 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4244]  
Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines  
What test methods and other procedures must I use if I am an owner or operator of a stationary SI internal combustion engine?**

Owners and operators of stationary SI ICE who conduct performance tests must follow the procedures in paragraphs (a) through (f) of this section.

(a) Each performance test must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and according to the requirements in §60.8 and under the specific conditions that are specified by Table 2 to this subpart.

(b) You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in §60.8(c). If your stationary SI internal combustion engine is non-operational, you do not need to startup the engine solely to conduct a performance test; however, you must conduct the performance test immediately upon startup of the engine.

(c) You must conduct three separate test runs for each performance test required in this section, as specified in §60.8(f). Each test run must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and last at least 1 hour.

(d) To determine compliance with the NOX mass per unit output emission limitation, convert the concentration of NOX in the engine exhaust using Equation 1 of this section:

(Formula omitted...refer to regulation for exact formula notation).

Image: "Equation 1"

Where:

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

Cd = Measured NOX concentration in parts per million by volume (ppmv).

$1.912 \times 10^{-3}$  = Conversion constant for ppm NOX to grams per standard cubic meter at 20 degrees Celsius.

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

T = Time of test run, in hours.

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

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

**SECTION E. Source Group Restrictions.**

(Formula omitted...refer to regulation for exact formula notation).

Image: "Equation 2"

Where:

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

Cd = Measured CO concentration in ppmv.

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

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

T = Time of test run, in hours.

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

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

(Formula omitted...refer to regulation for exact formula notation).

Image: "Equation 3"

Where:

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

Cd = VOC concentration measured as propane in ppmv.

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

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

T = Time of test run, in hours.

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

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

(Formula omitted...refer to regulation for exact formula notation).

"Equation 4"

Where:

RF<sub>i</sub> = Response factor of compound i when measured with EPA Method 25A.

CM<sub>i</sub> = Measured concentration of compound i in ppmv as carbon.

**SECTION E. Source Group Restrictions.**

$CA_i$  = True concentration of compound  $i$  in ppmv as carbon.

(Formula omitted...refer to regulation for exact formula notation).

"Equation 5"

Where:

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

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

(Formula omitted...refer to regulation for exact formula notation).

"Equation 6"

Where:

$CP_{eq}$  = Concentration of compound  $i$  in mg of propane equivalent per DSCM.

**III. MONITORING REQUIREMENTS.**

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

**IV. RECORDKEEPING REQUIREMENTS.**

**# 002 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4245]  
Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines  
What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary SI internal combustion engine?**

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

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

(1) All notifications submitted to comply with this subpart and all documentation supporting any notification.

(2) Maintenance conducted on the engine.

(3) If the stationary SI internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR parts 90, 1048, 1054, and 1060, as applicable.

[§60.4245(a)(3) amended at 73 FR 59177, Oct. 8, 2008, effective Dec. 8, 2008]

(4) If the stationary SI internal combustion engine is not a certified engine or is a certified engine operating in a non-certified manner and subject to §60.4243(a)(2), documentation that the engine meets the emission standards.

(b) For all stationary SI emergency ICE greater than or equal to 500 HP manufactured on or after July 1, 2010, that do not meet the standards applicable to non-emergency engines, the owner or operator of must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. For all stationary SI emergency ICE greater than or equal to 130 HP and less than 500 HP manufactured on or after July 1, 2011 that do not meet the standards applicable to non-emergency engines, the owner or operator of must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. For all stationary SI emergency ICE greater than 25 HP and less than 130 HP manufactured on or after July 1, 2008, that do not meet the standards applicable to non-emergency engines,

**SECTION E. Source Group Restrictions.**

the owner or operator of must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation.

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

(1) Name and address of the owner or operator;

(2) The address of the affected source;

(3) Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;

(4) Emission control equipment; and

(5) Fuel used.

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

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

**VI. WORK PRACTICE REQUIREMENTS.**

**# 003 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4243]  
Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines  
What are my compliance requirements if I am an owner or operator of a stationary SI internal combustion engine?**

Compliance requirements as an Owner/Operator of a stationary SI internal combustion engine.

a. N/A

b. As an Owner/Operator of stationary SI ICE subject to the emission standards specified in §60.4233(e), you must demonstrate compliance according to one of the methods specified in paragraphs (b)(1) and (b)(2) of this condition [40 CFR §60.4243].

1) N/A

2) Purchasing a non-certified engine and demonstrating compliance with the emission standards specified in §60.4233(d) or (e) and according to the requirements specified in §60.4244, as applicable, and according to paragraphs (b)(2)(i) and (ii) of this section.

i. N/A

ii. If you are an owner or operator of a stationary SI internal combustion engine greater than 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test and conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance.

c. - f. N/A

g. It is expected that air-to-fuel ratio controllers will be used with the operation of three-way catalysts/non-selective catalytic

**SECTION E. Source Group Restrictions.**

reduction. The AFR controller must be maintained and operated appropriately in order to ensure proper operation of the engine and control device to minimize emissions at all times.

h. - i. N/A

[Compliance with the performance testing frequency of 40 CFR §60.4243(b)(2)(ii) of this condition can be met through compliance with the periodic monitoring requirements of Section B, Condition 4(c) of the 2015 version of the Department's GP-5 permit listed as Section E, Group 2, Condition #006 of this state-only operating permit.]

**VII. ADDITIONAL REQUIREMENTS.**

**# 004 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4230]  
Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines  
Am I subject to this subpart?**

[Subpart JJJJ added and reserved at 71 FR 38497, July 6, 2006; text added at 73 FR 3591, Jan. 18, 2008]

(a) The provisions of this subpart are applicable to manufacturers, owners, and operators of stationary spark ignition (SI) internal combustion engines (ICE) as specified in paragraphs (a)(1) through (5) of this section. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator.

(1) - (3) N/A

(4) Owners and operators of stationary SI ICE that commence construction after June 12, 2006, where the stationary SI ICE are manufactured:

(i) N/A

(ii) on or after January 1, 2008, for lean burn engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP;

(iii) - (iv) N/A

(5) N/A

(b) - (f) N/A

**# 005 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4248]  
Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines  
What definitions apply to this subpart?**

All terms used in 40 CFR Part 60 Subpart JJJJ shall have the meaning given in 40 CFR §60.4248 or else in the Clean Air Act and 40 CFR Part 60 Subpart A.

**# 006 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6585]  
Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines  
Am I subject to this subpart?**

Each 1,340-HP Caterpillar G3516LE compressor engine is subject to 40 CFR Part 63, Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.

**# 007 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6590]  
Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines  
What parts of my plant does this subpart cover?**

Each 1,340-HP Caterpillar G3516LE compressor engine is a new stationary RICE located at an area source. Each of these compressor engines must meet the requirements of 40 CFR Part 63 Subpart ZZZZ by meeting the requirements of 40 CFR Part 60 Subpart JJJJ. No further requirements apply for these engines under 40 CFR Part 63 Subpart ZZZZ.

**SECTION E. Source Group Restrictions.**

Group Name: GROUP 02

Group Description: Requirements for All Engines

Sources included in this group

ID	Name
101	CATERPILLAR ENGINE G3516 LE (1340 HP)
102	CATERPILLAR ENGINE G3516 LE (1340 HP)
103	CATERPILLAR ENGINE G3516 LE (1340 HP)
104	CATERPILLAR ENGINE G3516 LE (1340 HP)
105	CATERPILLAR ENGINE G3516 LE (1340 HP)

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §123.13]****Processes**

The Owner/Operator may not permit the emission into the outdoor atmosphere of particulate matter from compressor engine stacks in excess of 0.04 gr/dscf.

**# 002 [25 Pa. Code §123.21]****General**

The Owner/Operator may not permit the emission into the outdoor atmosphere of sulfur oxides from compressor engine stacks in a manner that the concentration of the sulfur oxides, expressed as SO<sub>2</sub>, in the effluent gas exceeds 500 parts per million, by volume, dry basis.

**# 003 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The owner or operator shall operate or equip each 1,340-HP Caterpillar G3516LE compressor engine with air cleaning devices capable of meeting the following emission levels:

- At rated bhp, and operating at rated speed: 1.46 gms/bhp-hr NO<sub>x</sub> (4.31 lbs/hr NO<sub>x</sub>);
- At rated bhp, and operating at rated speed: 0.19 gms/bhp-hr VOC (Non-Methane Non-Ethane Hydrocarbon (NMNEHC), as propane, excluding formaldehyde) (0.56 lbs/hr VOC);
- At rated bhp, and operating at rated speed: 0.40 gms/bhp-hr CO (1.18 lbs/hr CO);
- At rated bhp, and operating at rated speed: 0.08 gms/bhp-hr HCHO (0.24 lbs/hr HCHO);
- At rated bhp, and operating at rated speed: 0.27 gms/bhp-hr VOC (includes HCHO) (0.80 lbs/hr VOC (includes HCHO));
- Ensure that at operating conditions less than rated capacity, the engine shall, on a lb/hr basis, emit no more than it would emit at rated bhp and speed.

The emission limits mentioned above do not apply during periods of startup and shutdown, provided that startup and shutdown do not exceed 30 minutes per occurrence. The owner or operator of the engines shall comply with all applicable start-up and shutdown requirements in accordance with 40 CFR Part 60, Subpart JJJJ and 40 CFR Part 63, Subpart ZZZZ.

**# 004 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Visible emissions from each engine stack shall not exceed the following limitations:

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

[Condition derived from the Department's 2015 version of the GP-5, Section B(1)(c).]

**SECTION E. Source Group Restrictions.****II. TESTING REQUIREMENTS.****# 005 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Performance testing, when required, 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 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.
- c. Pursuant to 40 CFR Part 60.8(a), 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.

**# 006 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The Owner/Operator shall perform periodic monitoring for NO<sub>x</sub> and CO emissions from each 1,340-HP Caterpillar G3516 LE compressor engine at this facility. Periodic monitoring shall be performed every 2,500 hours of operation and no sooner than 45 days from the previous test. A Department-approved test that has been performed within 45 days prior to the scheduled periodic monitoring may be used in lieu of the periodic monitoring for that time period. A portable gas analyzer may be used to satisfy the requirements of this condition utilizing three test runs of 20 minutes for each test run.

The Department may alter the frequency of portable analyzer tests based on the test results. The frequency of portable gas analyzer tests may be altered with written Departmental approval. The portable gas analyzer shall be used and maintained

**SECTION E. Source Group Restrictions.**

according to the manufacturer's specifications and the procedures specified in ASTM D 6522 or equivalent as approved by the Department. Periodic NO<sub>x</sub> and CO monitoring results shall be submitted to the Department within 30 days of completion.

[Condition derived from Section B(4)(c) of the 2015 GP-5.]

**III. MONITORING REQUIREMENTS.**

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

**IV. RECORDKEEPING REQUIREMENTS.**

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

**V. REPORTING REQUIREMENTS.**

No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

**VI. WORK PRACTICE REQUIREMENTS.**

No additional work practice requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

**VII. ADDITIONAL REQUIREMENTS.**

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).





**SECTION F. Alternative Operation Requirements.**

No Alternative Operations exist for this permit.

**SECTION G. Emission Restriction Summary.**

No emission restrictions listed in this section of the permit.



## SECTION H. Miscellaneous.

The facility consists of the following air contamination sources and air cleaning devices:

- Sources 101 – 105, 1,340-HP Caterpillar G3516LE stationary reciprocating internal combustion engines controlled by MIRATECH SP-ZES-30X31-12-XH1B2 Catalysts (or equivalent);
- Source 201, the 0.75 MMBtu/hr Dehydration Unit Reboiler controlled by a Flare Industries FEF-48 enclosed flare;
- Source 301, (2) 400-bbl Condensate Tanks controlled by a vapor recovery unit (VRU);
- Source 401, a 40.0 MMscf/day Natco Dehydrator controlled by a Flare Industries FEF-48 enclosed flare;
- Source 501, Pneumatic Devices;
- Source 601, Venting/Blowdowns, which include facility-wide blowdowns (i.e. ESD events) and compressor blowdowns;
- Source 701, Fugitives, which includes connectors, flanges, compressors, open-ended lines, pumps seals, valves, and rod packing;
- Source 702, Condensate Loadout;
- Source 703, Crankcase Vents;
- Source 801, Pigging Operations;

Source 105 is a "gap" engine that is neither subject to the requirements of 40 CFR Part 60 Subpart JJJJ nor 40 CFR Part 60 Subpart ZZZZ.

The facility is a synthetic minor for NO<sub>x</sub> and VOC emissions. The permittee has elected to take a 1.46 gms/bhp-hr NO<sub>x</sub> emission limit for each of the five compressor engines located at this facility. In addition, the owner/operator is required to conduct quarterly leak detection and repair (LDAR) for fugitive emissions reductions.

Facility-wide limits not to equal or exceed 99.0 TPY NO<sub>x</sub> and 49.4 TPY VOC are included in this operating permit, with a requirement that facility-wide emissions are tracked on a 12-month rolling basis for all air contamination sources.



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

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