



Pennsylvania
**Department of
Environmental Protection**

March 20, 2025

Kimberly Kaal, Environmental Manager
300 Frankfort Road
Monaca, PA 15061

Re: Plan Approval PA-04-00740B
Shell Chemical Appalachia, LLC
Shell Polymers Monaca Site
Potter and Center Townships
Beaver County

Dear Kimberly Kaal:

This is in response to your request for an Air Quality Plan Approval Extension. After careful review, your request for a 180-day extension has been approved. The expiration date of this extension is October 28, 2025.

In order to continue to operate lawfully after the 180-day extension period, you must have either:

Applied for and obtained an extension for an additional 180-day period; provided that you apply at least **30 days prior to expiration**, include the appropriate fee, and update you Air Pollution Control Act Compliance Review Form.

Met all of the requirements of the Plan Approval and received a Title V Operating Permit. Forms, instructions and fee information are available through our website at www.dep.pa.gov.

If one of the above actions is not completed and the Plan Approval expires, a new application for a Plan Approval may be required.

If you have any questions regarding this matter, please contact me by at 412.442.4028 or asandy@pa.gov.

Sincerely,

Alexander Sandy/AS
Environmental Engineering Specialist
Air Quality Program

Enclosure

cc: File 04-00740B
Operations (S. Wiedemer)
OnBase



**COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION**

Southwest Regional Office

Air Quality Program



PLAN APPROVAL PERMIT # 04-00740B

SHELL CHEM APPALACHIA LLC

Potter Township, Beaver County

Issue Date: February 18, 2021

Revision Date: March 19, 2025

Revision Type: Extension

Expiration Date: October 28, 2025



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
AIR QUALITY PROGRAM

PLAN APPROVAL

Issue Date: February 18, 2021

Effective Date: April 28, 2025

Revision Date: March 19, 2025

Expiration Date: October 28, 2025

Revision Type: Extension

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

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

Plan Approval No. 04-00740B

Federal Tax Id - Plant Code: 46-1624986-1

Owner Information

Name: SHELL CHEM APPALACHIA LLC
Mailing Address: 300 FRANKFORT RD
MONACA, PA 15061-2210

Plant Information

Plant: SHELL CHEM APPALACHIA/SHELL POLYMERS MONACA
Location: 04 Beaver County 04947 Potter Township
SIC Code: 2821 Manufacturing - Plastics Materials And Resins

Responsible Official

Name: NATHAN LEVIN
Title: GEN MGR
Phone: Email: Nathan.Levin@shell.com

Plan Approval Contact Person

Name: KIMBERLY KAAL
Title: ENV MGR
Phone: (724) 709 - 2467 Email: Kimberly.Kaal@shell.com

[Signature]

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



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
AIR QUALITY PROGRAM

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Plant Information

Plant: SHELL CHEM APPALACHIA/SHELL POLYMERS MONACA

Location: 04 Beaver County 04947 Potter Township

SIC Code: 2821 Manufacturing - Plastics Materials And Resins

Responsible Official

Name: NATHAN LEVIN

Title: GEN MGR

Phone:

Email: Nathan.Levin@shell.com

Plan Approval Contact Person

Name: KIMBERLY KAAL

Title: ENV MGR

Phone: (724) 709 - 2467

Email: Kimberly.Kaal@shell.com

[Signature] _____

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



Plan Approval Description

This plan approval is for the installation and temporary operation of sulfur hexafluoride (SF₆)-insulated high voltage equipment associated with the cogen area of the Shell Polymers Monaca Site.



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

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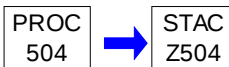
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**SECTION A. Plan Approval Inventory List**

Source ID	Source Name	Capacity/Throughput	Fuel/Material
504	GAS INSULATED SWITCHGEAR (SF6)		
Z504	FUGITIVE EMISSIONS (GAS INSULATED SWITCHGEAR)		

PERMIT MAPS

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

**SECTION B. General Plan Approval Requirements**

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

#006 [25 Pa. Code § 127.12b]**Plan Approval terms and conditions.**

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

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

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

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

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

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

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

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

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

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

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

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

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

**SECTION B. General Plan Approval Requirements**

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

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

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

(a) The permittee constructs or operates the source subject to the plan approval in violation of the act, the Clean Air Act, the regulations promulgated under the act or the Clean Air Act, a plan approval or permit or in a manner that causes air pollution.

(b) The permittee fails to properly or adequately maintain or repair an air pollution control device or equipment attached to or otherwise made a part of the source.

(c) The permittee fails to submit a report required by this plan approval.

(d) The Environmental Protection Agency determines that this plan approval is not in compliance with the Clean Air Act or the regulations thereunder.

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

(a) The permittee, or any other person, may not circumvent the new source review requirements of 25 Pa. Code Chapter 127, Subchapter E by causing or allowing a pattern of ownership or development, including the phasing, staging, delaying or engaging in incremental construction, over a geographic area of a facility which, except for the pattern of ownership or development, would otherwise require a permit or submission of a plan approval application.

(b) No person may permit the use of a device, stack height which exceeds good engineering practice stack height, dispersion technique or other technique which, without resulting in reduction of the total amount of air contaminants emitted, conceals or dilutes an emission of air contaminants which would otherwise be in violation of this plan approval, the Air Pollution Control Act or the regulations promulgated thereunder, except that with prior approval of the Department, the device or technique may be used for control of malodors.

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

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

Regional Air Program Manager

PA Department of Environmental Protection

(At the address given on the plan approval transmittal letter or otherwise notified)

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

(a) If required by Section 112(r) of the Clean Air Act, the permittee shall develop and implement an accidental release program consistent with requirements of the Clean Air Act, 40 CFR Part 68 (relating to chemical accident prevention provisions) and the Federal Chemical Safety Information, Site Security and Fuels Regulatory Relief Act (P.L. 106-40).

(b) The permittee shall prepare and implement a Risk Management Plan (RMP) which meets the requirements of Section 112(r) of the Clean Air Act, 40 CFR Part 68 and the Federal Chemical Safety Information, Site Security and Fuels Regulatory Relief Act when a regulated substance listed in 40 CFR § 68.130 is present in a process in more than the listed threshold quantity at the facility. The permittee shall submit the RMP to the Environmental Protection Agency according to the following schedule and requirements:

(1) The permittee shall submit the first RMP to a central point specified by the Environmental Protection Agency no later than the latest of the following:

**SECTION B. General Plan Approval Requirements**

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

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

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

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

#013 [25 Pa. Code § 127.25]**Compliance Requirement**

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

**SECTION C. Site Level Plan Approval Requirements****I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §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**

The permittee may not permit the emission into the outdoor atmosphere of a fugitive air contaminant contrary to 25 Pa. Code §123.1.

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

Emissions from the Facility shall not exceed the following on a 12-month rolling sum basis:

- Greenhouse Gases, expressed as Carbon Dioxide Equivalent (CO₂e): 2,249,147 tpy

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

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

III. MONITORING REQUIREMENTS.

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

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

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

- Emissions (expressed in tons) of CO₂e on a 12-month rolling sum basis.
- Monitoring information and report data as specified in 25 Pa. Code Chapter 139 Subchapter C and the most recent version of the Department's Continuous Source Monitoring Manual.
- Maintenance procedures and schedules for each air contamination source and air cleaning device authorized under this plan approval.
- Maintenance conducted on each air contamination source authorized under this plan approval.
- Amount of sulfur hexafluoride (SF₆) dielectric added to each SF₆-insulated high voltage equipment on a monthly basis.
- Date and time that each alarm associated with a SF₆-insulated high voltage equipment is activated, the corrective action taken to remedy the problem associated with each alarm, and the date the corrective action remedied the problem.
- Results of quarterly LDAR inspections including the date, time, name, and title of the observer, along with any corrective action taken as a result.

006 [25 Pa. Code §127.12b]**Plan approval 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.

**SECTION C. Site Level Plan Approval Requirements****V. REPORTING REQUIREMENTS.****# 007 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

Malfunction reporting shall be conducted as follows:

(a) The Owner/Operator shall report each malfunction that occurs at this Facility that poses an imminent and substantial danger to the public health and safety or the environment or which it should reasonably believe may result in citizen complaints to the Department. For purpose of this condition a malfunction is defined as any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment or source to operate in a normal or usual manner that may result in an increase in the emission of air contaminants. Examples of malfunctions may include, but are not limited to: large dust plumes, heavy smoke, a spill or release that results in a malodor that is detectable outside the property of the person on whose land the source is being operated.

(b) When the malfunction poses an imminent and substantial danger to the public health and safety, potential harm to the environment, the permittee shall report the incident to the Department within one hour of discovery. The permittee shall also notify the Department within one hour, when corrective measures have been accomplished.

All other malfunctions that must be reported under subsection (a) shall be reported to the Department no later than the next business day.

(c) Initial reporting of the malfunction shall identify the following items to the extent known:

- (1) Name and location of the facility;
- (2) Nature and cause of the malfunction;
- (3) Time when the malfunction or breakdown was first observed;
- (4) Expected duration of increased emissions; and
- (5) Estimated rate of emissions.

(d) Malfunctions shall be reported to the Department by e-mail (addresses will be provided by the Department) or at the following address:

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

(e) If requested by the Department, the permittee shall submit a full written report to the Department including final determinations of the items identified in (c) and the corrective measures taken on the malfunction. The report shall be submitted within 15 days of the Department's request or accomplishing corrective measures, whichever is later.

008 [25 Pa. Code §135.3]**Reporting**

Annual emissions reporting shall be conducted as follows:

(a) In accordance with 25 Pa. Code §135.3, the permittee shall submit to the Department via AES*Online or AES*XML at www.depgreenport.state.pa.us/ by March 1 of each year, a facility inventory report for the preceding calendar year for all sources authorized under this plan approval. The inventory report shall include all emissions information for all sources operated during the preceding calendar year. Emissions data including, but not limited, to the following shall be reported: carbon monoxide (CO); oxides of nitrogen (NOx); particulate matter less than 10 micrometers in diameter (PM10); particulate matter less than 2.5 micrometers in diameter (PM2.5); sulfur dioxide (SO2); volatile organic compounds (VOC); total hazardous air pollutants (HAP); speciated HAP including, but not limited to, benzene, ethyl benzene, formaldehyde, n-hexane, toluene, isomers and mixtures of xylenes, and 2,2,4-trimethylpentane; carbon dioxide (CO2); methane (CH4); and nitrous oxide (N2O).

(b) A source owner or operator may request an extension of time from the Department for the filing of a source report, and

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

the Department may grant the extension for reasonable cause.

VI. WORK PRACTICE REQUIREMENTS.**# 009 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

The permittee shall construct, operate, and maintain all air contamination sources authorized under this Plan Approval in accordance with the manufacturer's specifications and recommended maintenance schedules.

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

The permittee shall comply with all applicable requirements under 40 CFR Part 98 related to the Mandatory Greenhouse Gas Reporting Rule.

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

Air contamination sources and air cleaning devices authorized for construction and temporary operation under this Plan Approval are as follows:

- SF6-insulated high voltage equipment; controlled by leak detection and repair ("LDAR").

012 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

Upon determination by the permittee that the air contamination sources covered by this Plan Approval and Plan Approval PA-04-00740C are in compliance with all operative conditions of the Plan Approvals, the permittee shall contact the Department and schedule the Initial Operating Permit Inspection.

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

Upon completion of the Initial Operating Permit Inspection and determination by the Department that the source(s) covered by this Plan Approval and Plan Approval PA-04-00740C are in compliance with all conditions of the Plan Approvals, the permittee shall submit the Title V Operating Permit (TVOP) application within 120 days after the Department provides notice to the permittee that the application is due.

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

The permittee shall submit requests to extend the temporary operation periods at least 15 days prior to the expiration date of any authorized period of temporary operation.

VIII. COMPLIANCE CERTIFICATION.

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

IX. COMPLIANCE SCHEDULE.

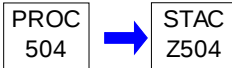
No compliance milestones exist.

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

Source ID: 504

Source Name: GAS INSULATED SWITCHGEAR (SF6)

Source Capacity/Throughput:

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

The emissions from the SF6-Insulated High Voltage Equipment installed and operated under this authorization shall not exceed the following on a 12-month rolling sum basis:

- Greenhouse Gases, expressed as Carbon Dioxide Equivalent (CO₂e): 854 tpy

II. TESTING REQUIREMENTS.

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

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

The permittee shall implement a sulfur hexafluoride (SF₆) leak detection and repair (LDAR) program to minimize SF₆-Insulated High Voltage Equipment leaks as follows:

(a) SF₆-insulated high voltage equipment are to be state-of-the-art enclosed pressure system equipped with low pressure alarms that are triggered when:

- (1) 10% of the SF₆ by weight has escaped from any SF₆-Insulated High Voltage Equipment.
- (2) A leak exceeds 5,000 ppm SF₆.

(b) When alarms are triggered, the operator shall take corrective action as soon as practicable to repair the SF₆-insulated high voltage equipment to a like-new state to minimize emissions of SF₆ to the maximum extent possible.

(c) Each SF₆-Insulated High Voltage Equipment shall be checked for leakage no less frequently than once every three months using either an OGI camera, a gas leak detector that meets the requirements of 40 CFR Part 60, Appendix A-7, Method 21, or other leak detection methods approved by the Department's Division of Source Testing and Monitoring. A leak is defined as: any positive indication, whether audible, visual, or odorous, determined during an AVO inspection; or any visible emissions detected by an OGI camera.

(d) Any leak detected from a fugitive emission component shall be repaired by the owner or operator of the facility as expeditiously as practicable. A first attempt at repair must be attempted within five (5) calendar days of detection, and repair must be completed no later than fifteen (15) calendar days after the leak is detected.

(e) Once a fugitive emission component has been repaired or replaced, the owner or operator must resurvey the component as soon as practicable, but no later than 30 calendar days after the leak is repaired.

(1) For repairs that cannot be made during the inspection when the leak is initially found, either a digital photograph must be taken of the component or the component must be tagged for identification purposes.

(2) A leak is considered repaired if there is no visible leak image when using an OGI camera.

**SECTION D. Source Level Plan Approval Requirements****IV. RECORDKEEPING REQUIREMENTS.****# 003 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

The permittee shall maintain the following comprehensive and accurate records:

- (a) Amount of sulfur hexafluoride (SF₆) dielectric added to or removed from high voltage equipment on a monthly basis.
- (b) Record pressure gauge inspections monthly, and when density monitoring system or concentration monitor alarm sounds.
- (c) Date and time that each alarm associated with SF₆-insulated high voltage equipment is activated, the corrective action taken to remedy the problem associated with each alarm, and the date the corrective action remedied the problem.
- (d) Records of each LDAR inspection, including:
 - (1) The date, start time, and end time of the inspection;
 - (2) The monitoring instrument used;
 - (3) The ambient temperature, sky conditions, and maximum wind speed at the time of inspection; and
 - (4) Documentation of each fugitive emission including:
 - a) The identification of each component from which fugitive emissions were detected;
 - b) The instrument reading of each fugitive emissions component;
 - c) The status of repair of each component including:
 - (i) The repair methods applied in each attempt to repair the component;
 - (ii) The tagging or digital photographing of each component not repaired during the inspection in which fugitive emissions were discovered;
 - (iii) The reasons a component was placed on delay of repair;
 - (iv) The date of successful repair of the component; and
 - (v) The information on the instrumentation or method used to resurvey the component after repair, if it was not completed during the inspection in which the fugitive emissions were discovered.

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

The permittee shall submit an annual report either in electronic format, by hand-delivery, courier, or sent by certified mail, return receipt requested, to the Air Program Manager of the Southwest DEP Regional Office. The reporting period specified by the owner/operator shall be no later than one year from the start of operations of the facility, unless otherwise approved by the Department. The initial and subsequent annual reports shall be submitted within 60 days of the end of the reporting periods. The report shall include: company name; facility site name; the beginning and ending dates of the reporting period; and the records of each LDAR inspection conducted during the reporting period.

VI. WORK PRACTICE REQUIREMENTS.

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

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

The enclosed SF₆-Insulated High Voltage Equipment for Gas-Insulated Switchgear (GIS) equipment shall have a vendor-guaranteed leak rate of 0.1% or less per year.

006 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

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

The enclosed SF6-Insulated High Voltage Equipment on transformers shall have a vendor-guaranteed leak rate of 0.5% or less per year.



SECTION E. Source Group Plan Approval Restrictions.

**SECTION F. Alternative Operation Requirements.**

No Alternative Operations exist for this Plan Approval facility.

**SECTION G. Emission Restriction Summary.**

No emission restrictions listed in this section of the permit.



SECTION H. Miscellaneous.



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



TO Air Quality Permit File PA-04-00740B

FROM Alexander Sandy/AS
Environmental Engineering Specialist
Air Quality Program

THROUGH Sheri L. Guerrieri, P.E./slg
Environmental Engineer Manager
Air Quality Program

Mark R. Gorog, P.E./MRG
Regional Manager
Air Quality Program

DATE March 19, 2025

RE Plan Approval Extension
Shell Chemical Appalachia, LLC
Shell Polymers Monaca Site – SF₆ Switchgear
Potter and Center Townships, Beaver County
APS 1122957 Auth 1518369 PF 775836

On March 4, 2025, the Department received a plan approval extension application from Shell Chemical Appalachia, LLC to extend the temporary operation of the sources authorized under this plan approval at the Shell Polymers Monaca Site located in Potter and Center Townships, Beaver County. The plan approval currently expires on April 28, 2025.

The period of temporary operation commenced on November 11, 2019, to coincide with the date that a Consent Order & Agreement (COA) was executed for the operation of SF₆ insulated high voltage equipment at the facility. In accordance with PA-04-00740B, Section B, Condition #003(d), “The permittee may request an extension of the 180-day shakedown period if further evaluation of the air contamination aspects of the source(s) is necessary. The request for an extension shall be submitted, in writing, to the Department at least 15 days prior to the end of the initial 180-day shakedown period and shall provide a description of the compliance status of the source, a detailed schedule for establishing compliance, and the reasons compliance has not been established. This temporary operation period will be valid for a limited time and may be extended for additional limited periods, each not to exceed 180 days.” The initial operating inspection was completed on January 20, 2022, and compliance was demonstrated with all conditions of the plan approval.

On May 24, 2023, Shell and the Department entered into a COA to resolve a variety of violations related to commissioning of the facility. Resolution of those issues are on-going.

On February 22, 2024, the Department requested the submittal of a Title V Operating Permit application by June 21, 2024. The Title V application was received by the Department on June 19, 2024, and is under review.

In order to allow additional time for continued temporary operation, I recommend extension of this plan approval until October 28, 2025.



Shell Chemical Appalachia LLC
300 Frankfort Rd
Monaca, PA 15061

March 3, 2025

Mark Gorog, P.E.
Air Quality Program Regional Manager
Pennsylvania Department of Environmental Protection
Southwest Regional Office
400 Waterfront Drive
Pittsburgh, PA 15222

**RE: Shell Chemical Appalachia LLC
Shell Polymers Monaca Site
Potter and Center Townships, Beaver County
Plan Approval No. 04-00740B
Plan Approval Construction Extension Request**

Dear Mr. Gorog:

Shell Chemical Appalachia LLC ("Shell") is requesting an extension of Plan Approval 04-00740B, along with our other associated Plan Approvals (04-00740A and 04-00740C), to extend temporary operation of commenced sources and to authorize the continued commissioning of sources and controls at the above-referenced facility.

The following documents are included in the extension request:

- Plan Approval Extension Form (completed and signed)
- Air Pollution Control Act Compliance Review Supplemental Form (completed and signed)
- Justification for the extension
- Schedule for the completion of the construction

The extension request was submitted via PADEP's OnBase Electronic Forms Upload platform. The application fee of \$750 for the application was paid via credit card through OnBase.

Please contact me at 724-709-2467 or kimberly.kaal@shell.com if you have any questions or need additional information.

Sincerely,

A handwritten signature in black ink, appearing to read "Kimberly Kaal", followed by a long horizontal line.

Kimberly Kaal
Environmental Manager

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR QUALITY

PLAN APPROVAL EXTENSION FORM

Current Plan Approval Information				
Plan Approval No.: 04-00740B		Owner Name: Shell Chemical Appalachia LLC		
Original Issued Date: 2/18/2021		Plant Name: Shell Polymers Monaca Site		
Current Expiration Date: 4/28/2025		Contact Name: Kimberly Kaal		
Project Commenced Date: 2/10/2016		Contact Title: Environmental Manager		
Contact Telephone: 724-709-2467		Contact Email: kimberly.kaal@shell.com		
Municipality: Potter & Center Twp		Mailing Address: 300 Frankfort Road		
County: Beaver		City: Monaca	State: PA	Zip Code: 15061
List of Source(s) and/or Air Cleaning Devices Specified in the Plan Approval (attach additional pages as needed)				
Source ID	Source Name	Air Cleaning Device	Date of Completion	Operational Commencement Date
	See attached schedule			
Reason for Extension (see instructions)				
☒	(A) Plan Approval Extension to continue construction, modification, reactivation of the source(s) or installation of air cleaning device(s) in accordance with 25 Pa. Code §127.13(a).			
☒	(B) Plan Approval Extension to extend temporary operation to facilitate the shake-down of sources and air cleaning devices, to permit operation pending issuance of a permit under Subchapter F (relating to operating permit requirements) or Subchapter G (relating to Title V operating permits) or to allow the evaluation of the source(s) for compliance with applicable regulations and requirements in accordance with 25 Pa. Code §127.12b(d).			
☐	(C) Other (including the extension of the 18-month period specified in 25 Pa. Code §127.13(b)).			
Checklist				
☒	Included Air Quality Fees Schedule			
☐	Fees are not required in accordance with 25 Pa. Code § 127.702(i)(3); justification included			
☒	Included justification for the extension request			
☒	Included complete Compliance Review Form or Compliance Review Supplemental Form if one has not been submitted within 6 months from the date of this application			
☒	Plan Approval Extension Form signed by a responsible official			
Certification of Truth, Accuracy and Completeness				
I certify that, subject to the penalties of Title 18 Pa. C.S.A. Section 4904 and 35 P.S. Section 4009(b)(2), I am the responsible official having primary responsibility for the design and operation of the facilities to which this application applies and that the information provided in this application is true, accurate, and complete to the best of my knowledge, information, and belief formed after reasonable inquiry.				
Name (Type): Nathan Levin		Title: Operations Manager		
Name (Signed):		Date: 3-4-25		



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR QUALITY

AIR POLLUTION CONTROL ACT COMPLIANCE REVIEW SUPPLEMENTAL FORM

Fully and accurately provide the following information, as specified. Attach additional sheets as necessary.

Date of Submission of Original Compliance Review Form 05/01/2014

Type of Supplemental Compliance Review Form Submittal (check all that apply)

☐ Original Filing ☒ Amended Filing
☐ No Changes ☐ Date of Last Compliance Review Form Filing 9/13/2024

Type of Submittal

☐ New Plan Approval ☐ New Operating Permit ☐ Renewal of Operating Permit
☒ Extension of Plan Approval ☐ Change of Ownership ☐ Periodic Submission
☐ Other _____ (every six months)

SECTION A. GENERAL APPLICANT INFORMATION

1. Name of Applicant/Permittee/("Applicant") (non-corporations attach documentation of legal name)

Shell Chemical Appalachia LLC

Address 300 Frankfort Road
Monaca, PA 15061

Telephone 724-709-2467

Taxpayer ID# 46-1624986

Permit, Plan Approval or Application ID# PA-04-00740B

2. Identify the form of management under which the applicant conducts its business.

☐ Individual ☐ Fictitious Name ☐ Association
☐ Municipality ☐ Partnership ☐ Syndicate
☐ Proprietorship ☐ Limited Partnership
☐ Public corporation ☐ Government Agency
☐ Private Corporation ☐ Joint Venture
☐ Municipal Authority ☒ Other Type of Business (specify) Limited Liability Company

3. Describe the type(s) of business activities performed.

*** Supplemental ***

List only those changes since the date of the last original submission.

No Changes

SECTION B. GENERAL INFORMATION REGARDING "APPLICANT"

If applicant is a corporation or a division or other unit of a corporation, provide the names, principal places of business, state of incorporation, and taxpayer ID numbers of all domestic and foreign parent corporations (including the ultimate parent corporation), and all domestic and foreign subsidiary corporations of the ultimate parent corporation with operations in Pennsylvania. Please include all corporate divisions or units, (whether incorporated or unincorporated) and privately held corporations. (A diagram of corporate relationships may be provided to illustrate corporate relationships.) Attach additional sheets as necessary.

*** Supplemental ***

List only those changes since the date of the last original submission.

Unit Name	Principal Places of Business	State of Incorporation	Taxpayer ID	Relationship to Applicant
No Changes				

SECTION C. INFORMATION REGARDING APPLICANT & ITS "RELATED PARTIES"

1. Pennsylvania Facilities. List the name and location (mailing address, municipality, county), telephone number, and relationship to applicant (parent, subsidiary or general partner) of all Related Parties' places of business, and facilities in Pennsylvania. Attach additional sheets as necessary.

*** Supplemental ***

List only those changes since the date of the last original submission.

Unit Name	Street Business	County and Municipality	Telephone No.	Relationship to Applicant
No Changes				

2. General Partners. Provide the names and business addresses of all general partners of the applicant and parent corporation, if any.

*** Supplemental ***

List only those changes since the date of the last original submission.

Name	Business Address
No Changes	

3. Management Responsibility. Provide the names and business of persons with overall management responsibility for the process being permitted (i.e., plant manager).

*** Supplemental ***

List only those changes since the date of the last original submission.

Name	Business Address
Nathan Levin Operations Manager Shell Chemical Appalachia LLC	Shell Chemical Appalachia LLC 300 Frankfort Road Monaca, PA 15061
Kimberly Kaal Environmental Manager Shell Chemical Appalachia LLC	Shell Chemical Appalachia LLC 300 Frankfort Road Monaca, PA 15061

- 4. Plan Approvals or Operating Permits.** List all plan approvals or operating permits issued by the Department or an approved local air pollution control agency under the APCA to the applicant or related parties that are currently in effect or have been in effect at any time five years prior to the date on which this form is notarized. This list shall include the plan approval and operating permit numbers, locations, issuance and expiration dates. Attach additional sheets as necessary.

*** Supplemental ***

List only those changes since the date of the last original submission.

Source	Plan Approval Operating Permit Number	Location	Issuance Date	Expiration Date
No Changes				

SECTION D. COMPLIANCE BACKGROUND

Note: Copies of specific documents, if applicable, must be made available to the Department upon its request.)

- 1. Documented Conduct.** List all documented conduct of violations or enforcement actions identified by the Department pursuant to the APCA, regulations, terms and conditions of an operating permit or plan approval or order by applicant or any related party, using the following format grouped by source and location in reverse chronological order. Attach additional sheets as necessary. See the definition of “documented conduct” for further clarification. Unless specifically directed by the Department, deviations which have been previously reported to the Department in writing, relating to monitoring and reporting, need not be reported.

*** Supplemental ***

List only those changes since the date of the last original submission.

Date	Location	Plan Approval/ Operating Permit#	Nature of Documented Conduct	Type of Department Action	Status Litigation; Existing / Continuing; or corrected/Date	Dollar Amount Penalty
9/18/2024	Shell Polymers Monaca	PA-04-00740A/B/C	Exceedances of 12-Month Emission Limitations for NOx [August 2024]	Notice of Violation	Pending	TBD
10/23/2024	Shell Polymers Monaca	PA-04-00740A/B/C	Exceedances of 12-Month Emission Limitations for NOx [September 2024]	Notice of Violation	Pending	TBD
11/26/2024	Shell Polymers Monaca	PA-04-00740A/B/C	Exceedances of 12-Month Emission Limitations for NOx [October 2024]	Notice of Violation	Pending	TBD
12/12/2024	Shell Polymers Monaca	PA-04-00740A/B/C	Exceedances of 12-Month Emission Limitations for NOx [November 2024]	Notice of Violation	Pending	TBD
1/23/2025	Shell Polymers Monaca	PA-04-00740A/B/C	Exceedances of 12-Month Emission Limitations for NOx [December 2024]	Notice of Violation	Pending	TBD
2/19/2025	Shell Polymers Monaca	PA-04-00740A/B/C	Exceedances of 12-Month Emission Limitations for NOx [January 2025]	Notice of Violation	Pending	TBD
2/12/2025	Shell Polymers Monaca	PA-04-00740A/B/C	Cogen Units NOx Emission Limit Exceedances: - 2/23/2024 Cogen Unit 103 - 7/4/2024 Cogen Unit 102	Notice of Violation	Pending	TBD
2/12/2025	Shell Polymers Monaca	PA-04-00740A/B/C	Ethane Cracking Furnaces NOx Emission Limit Exceedances: - 1/20/2024: Furnace 1 (031) and Furnace 2 (032) - 3/18/2024 Furnace 3 (033) - 6/21-22/2024 Furnace 3 (033) - 9/30/2024 Furnace 6 (036)	Notice of Violation	Pending	TBD
2/12/2025	Shell Polymers Monaca	PA-04-00740A/B/C	Ethane Cracking Furnaces NOx Emission Limit Exceedances: - 11/8/2024 Furnace 1 (031), Furnace 3 (033), Furnace 4 (034), Furnace 5 (035); Furnace 6 (036) - 11/9/2024 Furnace 6 (036) Visible Emissions >5 min in consecutive 2 hrs from the TEGF A C205A, TEGF B C205B, and HPEF C205C on 11/8/2024	Notice of Violation	Pending	TBD

SECTION D. COMPLIANCE BACKGROUND

Note: Copies of specific documents, if applicable, must be made available to the Department upon its request.)

- 1. Documented Conduct.** List all documented conduct of violations or enforcement actions identified by the Department pursuant to the APCA, regulations, terms and conditions of an operating permit or plan approval or order by applicant or any related party, using the following format grouped by source and location in reverse chronological order. Attach additional sheets as necessary. See the definition of "documented conduct" for further clarification. Unless specifically directed by the Department, deviations which have been previously reported to the Department in writing, relating to monitoring and reporting, need not be reported.

* * * Supplemental * * *

List only those changes since the date of the last original submission.

Date	Location	Plan Approval/ Operating Permit#	Nature of Documented Conduct	Type of Department Action	Status Litigation; Existing / Continuing; or corrected/Date	Dollar Amount Penalty
2/12/2025	Shell Polymers Monaca	PA-04-00740A/B/C	Visible Emissions >5 min in consecutive 2 hrs from the MPGF C204B on 9/16/2024 and 9/18/2024	Notice of Violation	Pending	TBD
2/12/2025	Shell Polymers Monaca	PA-04-00740A/B/C	Visible Emissions >5 min in consecutive 2 hrs from the MPGF C204B on 12/6/2024	Notice of Violation	Pending	TBD

CONTINUING OBLIGATION: Applicant is under a continuing obligation to update this form using the Compliance Review Supplemental Form if any additional documented conduct occurs or related parties develop between the date of submission and Department action on its application

2. Incidents of Deviation. List all incidents of deviations of the APCA, regulations, terms and conditions of an operating permit or plan approval or order by applicant or any related party, using the following format grouped by source and location in reverse chronological order. This list must include items both currently known and unknown to the Department. Attach additional sheets as necessary. See the definition of “deviations” for further clarification.

*** Supplemental ***

List only those changes since the date of the last original submission.

Date	Location	Plan Approval/ Operating Permit#	Nature of Deviation	Incident Status: Existing/Continuing; or Corrected Date
2/1/2024 to present	Shell Polymers Monaca	PA-04-00740A/C	Site-wide NOx 12-month rolling limitation: The COA expired end of January 2024. Site remains non-compliant with emission limitation.	Continuing deviation. Engineering improvements and permitting corrections to match facility design. Proposed to be resolved in plan approval modification application.
12/12/2025 1/21/2025	Shell Polymers Monaca	PA-04-00740A/C	Cogeneration Units: Exceeded NOx 2 ppmvd at 15% O2 as detailed below: Unit 1: 1 hr on 12/12/2024 Unit 2: 1 hr on 12/12/2024 Unit 2: 1 hr on 1/21/2025	Corrected after each incident. See Malfunction Report submitted on 2/18/2025 for deviation on 1/21/2025. Each deviation is, or will be, addressed in quarterly excess emission reports.
1/22/2025 1/23/2025	Shell Polymers Monaca	PA-04-00740A/C	Cogeneration Units: NH3 Excess Emissions on Cogen 2	Corrected after each incident.
9/30/2024 10/3/2024 10/4/2024 10/13/2024 11/5/2024 11/8/2024 11/9/2024 11/19/2024 11/20/2024	Shell Polymers Monaca	PA-04-00740A/C	Cracking Furnaces: Exceeded NOx 6.2 lbs/hr during decoking, hot steam standby, feed in or feed out: 9/30/2024: Furnace 6 (036) for 1 hour 10/3/2024: Furnace 4 (034) for 1 hour 10/4/2024: Furnace 2 (032) for 1 hour 11/5/2024: Furnace 6 (036) for 1 hour 11/8/2024: Furnace 5 (035) for 1 hour 11/8/2024: Furnace 6 (036) for 3 hours 11/9/2024: Furnace 6 (036) for 1 hour 11/19/2024: Furnace 4 (034) for 1 hour Exceeded NOx 0.015 lb/MMBtu hourly average during normal operating mode: 10/13/2024: Furnace 2 (032) for 1 hour 11/8/2024: Furnace 1 (031) for 1 hour 11/8/2024: Furnace 3 (033) for 1 hour 11/8/2024: Furnace 4 (034) for 2 hours 11/20/2024: Furnace 1 (031) for 1 hour	Corrected after each incident. See Malfunction Report submitted on 10/22/2024 for the 9/30/2024 deviation. See Malfunction Report submitted on 12/9/2024, and follow-up report submitted on 2/6/2025 for the 11/8 and 11/9/2024 deviations. The deviations are, or will be, addressed in quarterly excess emission reports.
Q4 2022 (Furnace 5) Q1-Q4 2023 (Furnaces 1-7)	Shell Polymers Monaca	PA-04-00740A/C	Cracking Furnaces CEMS Report: Reports required to be resubmitted due to inaccurate data from the density analyzer, resulting in inaccurate mass fuel gas consumption and resulting NOx and CO emissions.	Density meter settings were corrected on November 19, 2024, and quarterly CEMS report must be submitted for the Q4 2022 for Furnace 5 only and Q1-Q4 2023 for all furnaces. These revised reports will be submitted by May 2025.
Q1-Q3 2024 (Furnaces 1-7)	Shell Polymers Monaca	PA-04-00740A/C	Cracking Furnaces CEMS Report: Reports required to be resubmitted due to inaccurate data from the density analyzer, resulting in inaccurate mass fuel gas consumption and resulting NOx and CO emissions.	Density meter settings inaccuracies were corrected on November 19, 2024, and quarterly CEMS report must be submitted for the Q4 2022 for Furnace 5 only and Q1-Q4 2023 for all furnaces. These revised reports will be submitted by March 2025.

2. Incidents of Deviation. List all incidents of deviations of the APCA, regulations, terms and conditions of an operating permit or plan approval or order by applicant or any related party, using the following format grouped by source and location in reverse chronological order. This list must include items both currently known and unknown to the Department. Attach additional sheets as necessary. See the definition of "deviations" for further clarification.

*** Supplemental ***

List only those changes since the date of the last original submission.

Date	Location	Plan Approval/ Operating Permit#	Nature of Deviation	Incident Status: Existing/Continuing; or Corrected Date
2022 to present	Shell Polymers Monaca	PA-04-00740A/C	Maximum designed water circulation rate through the cogeneration cooling tower is greater than limit in permit.	Continuing deviation. Correcting the designed water circulation rate for as-built in the plan approval modification application.
9/29/2024 (1 15-min block period): TEGF A/B 10/7/2024 (1 15-min block period): TEGF A/B 11/10/2024 (2 15-min block periods): TEGF A/B	Shell Polymers Monaca	PA-04-00740A/C	Net Heating Value TEGFs A/B. Did not meeting requirements for NHV of ≥ 800 Btu/scf in 40 CFR Part 63 Subparts YY and FFFF as required for pressure-assisted multi-point flares.	Corrected after each incident.
7/6/2023 to present	Shell Polymers Monaca	PA-04-00740A/C	HPEF is not equipped with required monitoring system capable of continuously measuring, calculating, and recording the volumetric flow rate of assist steam.	There are 2 steam lines: center steam and upper steam. As of February 26, 2025, monitoring equipment has been added to measure and calculate the upper steam flow to the flare. The timeline for the monitoring equipment for the center steam is currently being evaluated as some project execution issues have been encountered.
7/6/2023 to present	Shell Polymers Monaca	PA-04-00740A/C	HPEF is not equipped with automated controls for the control of the total steam mass flow rate to the flare.	A control valve will be installed in the center steam assist line to ensure proper controls - the timeline is currently being evaluated as some project execution issues have been encountered. . The large steam line has an existing control valve and automated controls.
9/16/2024	Shell Polymers Monaca	PA-04-00740A/C	Visible Emissions MPGF. Visible emissions > 5 minutes in consecutive 2 hours caused by MPGF Ethylene Tank Header.	Corrected. See Malfunction Report submitted dated 10/9/2024, submitted on 10/11/2024.
9/18/2024	Shell Polymers Monaca	PA-04-00740A/C	Visible Emissions MPGF. Visible emissions > 5 minutes in consecutive 2 hours caused by MPGF Ethylene Tank Header.	Corrected. See Malfunction Report submitted dated 10/9/2024, submitted on 10/11/2024.
11/8/2024	Shell Polymers Monaca	PA-04-00740A/C	Visible Emissions TEGF A, TEGF B and HPEF. Visible emissions > 5 minutes in consecutive 2 hours for each flare.	Corrected. See Malfunction Report submitted on 12/9/2024, and follow-up report submitted on 2/6/2025.
12/6/2024	Shell Polymers Monaca	PA-04-00740A/C	Visible Emissions MPGF. Visible emissions > 5 minutes in consecutive 2 hours caused by MPGF Ethylene Tank Header.	Corrected. See Malfunction Report submitted on 1/6/2025.

2. Incidents of Deviation. List all incidents of deviations of the APCA, regulations, terms and conditions of an operating permit or plan approval or order by applicant or any related party, using the following format grouped by source and location in reverse chronological order. This list must include items both currently known and unknown to the Department. Attach additional sheets as necessary. See the definition of "deviations" for further clarification.

*** Supplemental ***

List only those changes since the date of the last original submission.

Date	Location	Plan Approval/ Operating Permit#	Nature of Deviation	Incident Status: Existing/Continuing; or Corrected Date
9/2022 to present	Shell Polymers Monaca	PA-04-00740A/C	LP and HP Header Systems: Root cause analysis (RCA) is required within 45 days after any startup, shutdown, or unforeseeable flaring event. HP Flare System: 9 RCAs were not completed within the 45-day window. Of these, 1 RCA remains outstanding as of submittal. LP Flare System: 28 RCAs were not completed within the 45-day window. Of these, 21 RCAs remain outstanding as of submittal.	Corrected. Update to the last Compliance Review Form: All outstanding RCA's have been completed and deviation has been corrected.
SCTO Downtime: 12/2024: ~174 hours FEORs/ROT Blower Downtime: 9/2024: 1.6 hrs 11/2024: ~ 3 min 12/2024: ~114 hrs 1/2025: ~5.5 hrs Spent Caustic Blower Downtime: 9/2024: ~10 min 12/2024: ~169 hrs 1/2025: ~5.5 hrs	Shell Polymers Monaca	PA-04-00740A/C RFD 10277; Approval Date 8/9/2023 for WEMCO/EC-15	SCTO and SCTO Blower Downtime. Small amounts of excess emissions from FEOR A/B, recovered oil, spent caustic storage tanks, and temporary WEMCO and EC-15 Units due to either SCTO or blower issues where emissions did not go to the SCTO. The tanks are internal floating roof tanks with minimal uncontrolled emissions.	Corrected after each incident. The December 2024 blower downtime is associated with SCTO downtime for burner replacements.
11/6/2024	Shell Polymers Monaca	PA-04-00740A/C	PFO Storage Tanks. Uncontrolled releases through the relief vents during maintenance, resulting in offsite malodors.	Corrected. See Malfunction Report submitted on 12/5/2024.
5/21/2024 Test Date	Shell Polymers Monaca	PA-04-00740A/C	CVTO stack test results not compliant with emission limitations for PM10 and PM2.5.	Corrected. Update to the last Compliance Review Form: Retested in September 17 and 18, 2024. Report submitted to PADEP on November 15, 2024 with passing results.

2. Incidents of Deviation. List all incidents of deviations of the APCA, regulations, terms and conditions of an operating permit or plan approval or order by applicant or any related party, using the following format grouped by source and location in reverse chronological order. This list must include items both currently known and unknown to the Department. Attach additional sheets as necessary. See the definition of "deviations" for further clarification.

*** Supplemental ***

List only those changes since the date of the last original submission.

Date	Location	Plan Approval/ Operating Permit#	Nature of Deviation	Incident Status: Existing/Continuing; or Corrected Date
5/23/2024 Test Date	Shell Polymers Monaca	PA-04-00740A/C	SCTO stack test results not compliant with emission limitations for NOx, PM10, and PM2.5.	Corrected for PM10/PM2.5. Update to the last Compliance Review Form: Retested on 9/20 and 9/21/2024 for PM10 and PM. Report submitted to PADEP on 11/19/2024 with passing results. NOx: Burner tip modifications occurred in December 2024, but did not yield a passing NOx emission factor. Temporary mitigation of limiting the combustion temperature setpoint has been put in place to ensure lb/hr NOx stays below PTE basis. Currently progressing other interim mitigations: Air-to-fuel ratio optimizations; relocating natural gas valve to improve burner tuning capabilities.
Jan 2022 Test Date Dec 2022 Test Date	Shell Polymers Monaca	PA-04-00740A/C	PADEP has deemed the following test results as unacceptable for the Cogen Units: Cogen Unit 1: Ammonia, Benzene, Toluene, Formaldehyde during 1/28/2022 Test (Report Date 3/23/2022) Cogen Unit 1: Benzene, Toluene, Formaldehyde during 12/1/2022 Test (Report Date 2/9/2023) Cogen Unit 2: Ammonia, Benzene, Toluene, Formaldehyde during 1/21/2022 Test (Report Date 3/23/2022) Cogen Unit 2: Toluene, Formaldehyde during 12/9/2022 Test (Report Date 2/9/2023) Cogen Unit 3: Ammonia, Benzene, Toluene, Formaldehyde during 1/26/2022 Test (Report Date 3/23/2022) Cogen Unit 3: Toluene during 12/8/2022 Test (Report Date 2/9/2023)	Corrected Ammonia: QA/QC data was submitted in 2/2025 to correct reports. Corrected Formaldehyde: June 2024 test report submitted for review to serve as correction to previous testing. Benzene and Toluene: Testing rescheduled for week of March 24, 2025. Revised test protocol to be submitted for approval prior to testing.

CONTINUING OBLIGATION: Applicant is under a continuing obligation to update this form using the Compliance Review Supplemental Form if any additional documented conduct occur or related parties develop between the date of submission and Department action on its application

VERIFICATION STATEMENT

Subject to the penalties of Title 18 Pa.C.S. Section 4904 and 35 P.S. Section 4009(b)(2), I verify under penalty of law that I am authorized to make this verification on behalf of the Applicant/Permittee. I further verify that the information contained in this Compliance Review Supplemental Form is true and complete to the best of my belief formed after reasonable inquiry. I further verify that reasonable procedures are in place to ensure that "documented conduct" and "deviations" as defined in 25 Pa Code Section 121.1 are identified and included in the information set forth in this Compliance Review Supplemental Form.



Signature

3-4-25

Date

Nathan Levin

Name (Print or Type)

Operations Manager

Title

Attachment A
Plan Approval Extension Justification

Shell is required to request an extension of the plan approvals until the Title V Operating Permit is issued. In accordance with PA-04-00740A, Section B, Condition #003 (d), Shell is requesting an extension of the 180-day shakedown period to continue temporary operation of sources that have commenced operation and for continued commissioning and emission testing activities of the remaining permitted sources and air cleaning devices. PA-04-00740A was first issued on June 18, 2015 and PA-04-00740B and C were issued on February 18, 2021, with all three permits expiring on April 28, 2025.

Shell submitted the initial *Title V Operating Permit Application* to PADEP on June 19, 2024 in response to a February 22, 2024 letter from PADEP requiring the submission of a Title V Operating Permit Application by June 21, 2024. Then, on September 13, 2024, Shell submitted a *Plan Approval Modification Application* to PADEP to propose permanent Wastewater Treatment Plant (WWTP) controls, to request incorporation of the appropriate Ethylene Maximum Achievable Control Technology (EMACT) requirements into the permit, and to reconcile specific plan approval source descriptions, potential-to-emit calculations, and conditions within the permit.

Shell is requesting an extension of the Plan Approvals A, B and C until an updated plan approval is issued by PADEP in response to the *Plan Approval Modification Application* submitted in September 2024.

Attachment B

List of Source(s) and/or Air Cleaning Devices Specified in Plan Approval No. 04-00740 A, B and C

Source ID	Source Name	Air Cleaning Device	Date of Completion	Operational Commencement Date
031	Ethane Cracking Furnace #1		July 6, 2022	July 30, 2022, lit burners to start dry out. Ethane feed in Sep. 5, 2022.
032	Ethane Cracking Furnace #2		July 6, 2022	May 27, 2022, lit burners to start dry out. Ethane feed in Sep. 13, 2022
033	Ethane Cracking Furnace #3		July 6, 2022	June 1, 2022, lit burners to start dry out. Ethane feed in Sep. 6, 2022
034	Ethane Cracking Furnace #4		July 6, 2022	August 17, 2022, lit burners to start dry out. Ethane feed in Sep. 17, 2022
035	Ethane Cracking Furnace #5		July 6, 2022	May 12, 2022, lit burners to start dry out. Ethane feed in Sep. 5, 2022
036	Ethane Cracking Furnace #6		July 6, 2022	May 6, 2022, lit burners to start dry out. Ethane feed in Sep. 25, 2022
037	Ethane Cracking Furnace #7		July 6, 2022	April 14, 2022, lit burners to start dry out. Ethane feed in Sep. 8, 2022
C031		SCR (Ethane Cracking Furnace #1)	August 15, 2022	August 15, 2022
C032		SCR (Ethane Cracking Furnace #2)	June 15, 2022	June 15, 2022
C033		SCR (Ethane Cracking Furnace #3)	June 19, 2022	June 19, 2022
C034		SCR (Ethane Cracking Furnace #4)	August 30, 2022	August 30, 2022
C035		SCR (Ethane Cracking Furnace #5)	May 22, 2022	May 22, 2022
C036		SCR (Ethane Cracking Furnace #6)	May 13, 2022	May 13, 2022
C037		SCR (Ethane Cracking Furnace #7)	April 22, 2022	April 22, 2022
101	Combustion Turbine/Duct Burner Unit #1		June 24, 2021	June 24, 2021

Attachment B

List of Source(s) and/or Air Cleaning Devices Specified in Plan Approval No. 04-00740 A, B and C

Source ID	Source Name	Air Cleaning Device	Date of Completion	Operational Commencement Date
102	Combustion Turbine/Duct Burner Unit #2		June 20, 2021	June 20, 2021
103	Combustion Turbine/Duct Burner Unit #3		June 30, 2021	June 30, 2021
C101		SCR (Unit #1)	July 2021	Sep 2021
C101A		Oxidation Catalyst (Unit #1)	July 2021	Sep 2021
C102		SCR (Unit #2)	July 2021	August 2021
C102A		Oxidation Catalyst (Unit #2)	July 2021	August 2021
C103		SCR (Unit #3)	July 2021	Sep 2021
C103A		Oxidation Catalyst (Unit #3)	July 2021	Sep 2021
104	Cogeneration Plant Cooling Tower(s)		June 20, 2021	June 20, 2021
C104		Drift Eliminators (Process Cooling Tower)	June 20, 2021	June 20, 2021
105 ^a	Diesel-Fired Emergency Generator Engines (2)		March 2, 2020	March 2, 2020
106	Fire Pump Engines (2)		Dec 4, 2020	Dec 4, 2020,
107 ^a	Natural Gas-Fired Emergency Generators (3)		March 2, 2020	March 2, 2020
201	Ethylene Manufacturing Line		July 6, 2022	September 7 2022 feed into ECU
202 ^b	Polyethylene Manufacturing Lines		July 6, 2022	See Note b
C202 ^b		Particulate Filters (PE MFG)	July 6, 2022	See Note b
203	Process Cooling Tower(s)		July 6, 2022, including chemical cleaning and passivation activities	September 7 2022 feed into ECU
C203		Drift Eliminators (Process Cooling Tower)	July 6, 2022	September 7 2022 feed into ECU
204	Low Pressure (LP) Header System		May 16, 2022	May 16, 2022
C204		LP System	May 16, 2022	May 16, 2022
C204A		LP Incinerator	March 31, 2022. Lit for initial dry out	March 31, 2022

Attachment B

List of Source(s) and/or Air Cleaning Devices Specified in Plan Approval No. 04-00740 A, B and C

Source ID	Source Name	Air Cleaning Device	Date of Completion	Operational Commencement Date
C204B		LP Multipoint Ground Flare (MPGF)	March 21, 2022. Lit pilots for testing	March 21, 2022
205	High Pressure (HP) Header System		May 12, 2022	May 12, 2022
C205		HP System	May 12, 2022	May 12, 2022
C205A		HP Ground Flare	March 16, 2022. Lit pilots for testing	March 16, 2022
C205B		HP Ground Flare	March 16, 2022. Lit pilots for testing	March 16, 2022
C205C		HP Elevated Flare	March 16, 2022. Lit pilots for testing	March 16, 2022
206	Spent Caustic Vent Header System		Construction completed, refractory dry out started May 18, 2022, re lit June 7, 2022 for operation	June 7, 2022
C206		Spent Caustic Vent Incinerator	Construction completed, refractory dry out started May 18, 2022, re lit June 7, 2022 for operation	June 7, 2022
301	Polyethylene Pellet Material Storage/ Handling/Loadout		First pellet test run in PE3 March 19, 2022	March 19, 2022
C301		Fabric Filters (Pellet Storage/Handling/Loadout)	First pellet test run in PE3 March 19, 2022	March 19, 2022
302	Liquid Loadout (Recovered Oil)		July 6, 2022	May 24, 2023
303	Liquid Loadout (Pyrolysis Fuel Oil, Light Gasoline)		July 6, 2022	December 16, 2022 (PFO) March 21, 2023 (Light Gasoline)
304	Liquid Loadout (C3+)		July 6, 2022	September 9, 2022

Attachment B

List of Source(s) and/or Air Cleaning Devices Specified in Plan Approval No. 04-00740 A, B and C

Source ID	Source Name	Air Cleaning Device	Date of Completion	Operational Commencement Date
305	Liquid Loadout (Coke Residue/Tar)		July 6, 2022	March 14, 2023 1 st load out of blended pitch from ECU
401	Storage Tanks (Recovered Oil, Equalizations Wastewater)		April 30, 2021	April 30, 2021
402	Storage Tank (Spent Caustic)		July 6, 2022	August 18, 2022
403	Storage Tanks (Light Gasoline)		July 6, 2022	February 3, 2022
404	Storage Tanks (Hexene)		May 31, 2022	May 31, 2022 (Tank B) and June 26, 2022 (Tank A)
405	Storage Tanks (Misc Pressurized/ Refrigerated)		May 12, 2022	5/12/2022
406	Storage Tanks (Diesel Fuel > 150 gallons)		December 4, 2020	December 4, 2020
C406 ^c		Carbon Canisters (Diesel Storage Tanks)	Construction has not commenced	See Note c
407	Storage Tanks (Pyrolysis Fuel Oil)		July 6, 2022	November 8, 2022
408	Storage Tanks (Diesel Fuel < 150 gallons)		March 2, 2020	March 2, 2020
409	Methanol Storage Vessels and Components		May 12, 2022	May 12, 2022
501 ^b	Equipment Components		July 6, 2022	First pellets made at PE3 November 21, 2022, last PE unit to start. All areas have LDAR
502	Wastewater Treatment Plant		April 30, 2021	April 30, 2021
N/A	Induced Nitrogen Flootation Units covered under RfDs - RfD 10119 Approval Date 4/10/2023 - RfD 10277 Approval Date 8/9/2023	Spent Caustic Vent Incinerator	Wemco INF: May 1, 2023 EC15 INF: November 19, 2023	Wemco INF: May 1, 2023 EC15 INF: November 19, 2023

Attachment B

List of Source(s) and/or Air Cleaning Devices Specified in Plan Approval No. 04-00740 A, B and C

Source ID	Source Name	Air Cleaning Device	Date of Completion	Operational Commencement Date
503	Plant Roadways		Started paving in October 2020	Completed site paving June 5, 2023
504	SF6 High Voltage Switchgear		November 12, 2019	November 12, 2019

^a Source 105, 107 engines covered by RfD 8259

^b PE1 Unit commissioned on October 1, 2022. PE2 Unit commissioned on November 1, 2022. PE3 Unit initially attempted commissioning November 21, 2022, but has experienced equipment design deficiencies and was shut down since March 25, 2023, following limited commissioning attempts. PE3 Unit was re-commissioned and produced polyethylene on February 23, 2024.

^c No applicable storage tank installed for requirement to apply