



April 15, 2024

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, 2024.

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 an Operating Permit or amended an existing Operating Permit at least 60 days prior to the Plan Approval expiration date. Forms, instructions and fee information are available through our website [www.dep.state.pa.us](http://www.dep.state.pa.us).

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 email at [mjativa@pa.gov](mailto:mjativa@pa.gov).

Sincerely,

Alexander Sandy/AS

Environmental Engineering Specialist  
Air Quality Program

Enclosure

cc: File 04-00740B  
Operations (E. Speicher)  
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: April 11, 2024

Revision Type: Extension

Expiration Date: October 28, 2024



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

**PLAN APPROVAL**

Issue Date: February 18, 2021

Effective Date: April 28, 2024

Revision Date: April 11, 2024

Expiration Date: October 28, 2024

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

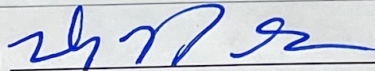
Responsible Official

Name: WILLIAM WATSON  
Title: GEN MGR  
Phone: (724) 709 - 2825 Email: William.Watson@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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SIC Code: 2821 Manufacturing - Plastics Materials And Resins

**Responsible Official**

Name: WILLIAM WATSON  
Title: GEN MGR  
Phone: (724) 709 - 2825 Email: William.Watson@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 (SF<sub>6</sub>)-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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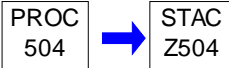
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**SECTION A. Plan Approval Inventory List**

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(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(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 (CO<sub>2</sub>e): 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 CO<sub>2</sub>e 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 (SF<sub>6</sub>) dielectric added to each SF<sub>6</sub>-insulated high voltage equipment on a monthly basis.
- Date and time that each alarm associated with a SF<sub>6</sub>-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/](http://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.

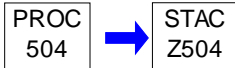


**SECTION D. Source Level Plan Approval Requirements**

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 (CO<sub>2</sub>e): 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 (SF<sub>6</sub>) leak detection and repair (LDAR) program to minimize SF<sub>6</sub>-Insulated High Voltage Equipment leaks as follows:

(a) SF<sub>6</sub>-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 SF<sub>6</sub> by weight has escaped from any SF<sub>6</sub>-Insulated High Voltage Equipment.
- (2) A leak exceeds 5,000 ppm SF<sub>6</sub>.

(b) When alarms are triggered, the operator shall take corrective action as soon as practicable to repair the SF<sub>6</sub>-insulated high voltage equipment to a like-new state to minimize emissions of SF<sub>6</sub> to the maximum extent possible.

(c) Each SF<sub>6</sub>-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 \*\*\*\*\*

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**COMMONWEALTH OF PENNSYLVANIA**  
**Department of Environmental Protection**  
**Southwest Regional Office**

**MEMO**

**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** April 11, 2024

**RE** Plan Approval Extension  
Shell Chemical Appalachia, LLC  
Shell Polymers Monaca Site  
Potter and Center Townships, Beaver County  
APS # 1008145, Auth # 1477098, PF # 775836

On March 8, 2024, the Department received a plan approval extension application from Shell Chemical Appalachia, LLC to extend the temporary operation of the Shell Polymers Monaca Site located in Potter and Center Townships, Beaver County. The plan approval currently expires on April 28, 2024.

The period of temporary operation commenced on November 11, 2019, to coincide with the date that a consent order and agreement (COA) was executed for the operation of SF<sub>6</sub> 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 Consent Order & Agreement to resolve a variety of violations related to commissioning of the facility. Resolution of those issues are on-going.

The Title V Operating Permit application was requested to be submitted within 120 days of the notification sent to the permittee by the Department on February 22, 2024.

On April 2, 2024, the Bureau of Air Quality Continuous Emission Monitoring (CEM) Section provided notice that Ethane Cracking Furnace NO<sub>x</sub> and CO CEMSs have been certified retroactively to the following dates:

- Ethane Cracking Furnace 1, January 7, 2023;
- Ethane Cracking Furnace 2, January 24, 2023;
- Ethane Cracking Furnace 3, January 3, 2023;
- Ethane Cracking Furnace 4, January 3, 2023;
- Ethane Cracking Furnace 5, December 22, 2022;
- Ethane Cracking Furnace 6, January 13, 2023; and
- Ethane Cracking Furnace 7, January 3, 2023.

In order to allow additional time for the continued temporary operation, I recommend extension of this plan approval until October 28, 2024.