

PF # 775836
Insp # 2957974

Enf # 380770

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

In The Matter Of:

Shell Chemical Appalachia LLC	:	Air Quality
150 N. Dairy Ashford	:	Gas Insulated Switchgear
Houston, TX, 77079	:	Potter & Center Townships,
	:	Beaver County

CONSENT ORDER AND AGREEMENT

This Consent Order and Agreement (COA) is entered into this 17th day of November, 2019, by and between the Commonwealth of Pennsylvania, Department of Environmental Protection ("Department"), and Shell Chemical Appalachia LLC ("Shell").

The Department has found and determined the following:

- A. The Department is the agency with the duty and authority to administer and enforce The Air Pollution Control Act, Act of Jan. 8, 1960 (1959), P.L. 2119, *as amended*, 35 P.S. §§ 4001 – 4015 ("Air Pollution Control Act"); Section 1917-A of the Administrative Code of 1929, Act of April 9, 1929, P.L. 177, *as amended*, 71 P.S. § 510-17 ("Administrative Code"); and the rules and regulations ("rules and regulations") promulgated thereunder.
- B. Shell is a Delaware limited liability company with a mailing address of 150 N. Dairy Ashford, Houston, TX, 77079.
- C. Shell is currently constructing a petrochemical facility in Potter and Center Townships, Beaver County pursuant to Plan Approval No. 04-00740A, issued on June 18, 2015 ("Facility").
- D. Shell commenced construction of the Facility within 18 months of issuance of its plan approval and has engaged in a continuous pattern of construction up to the present.

E. The Facility was determined to be a major source of air contaminants for ozone precursors (NO_x & VOC) (in an area within the Ozone Transport region), NO₂, CO, PM₁₀ and PM_{2.5}, hazardous air pollutants, and greenhouse gasses (GHG).

F. The air contamination sources at the Facility include three gas fired turbines, which will produce electricity for use at the Facility, and any surplus electricity may be sold.

G. The Facility includes electrical equipment to allow electricity to flow within the Facility, from the Facility to the electrical grid, and from the electrical grid to the Facility.

H. Certain electrical equipment that Shell has installed at the Facility contains gas insulated switchgear and gas insulated arresters (collectively "GIS"), which use sulfur hexafluoride (SF₆) gas as an insulating medium. Electrical equipment that contain GIS are:

- Main Incoming Substation (MIS)
- Power Distribution Substation (PDS)
- Certain power transformers
- Other location at the facility (S & C Vista switchgear)

I. SF₆ is commonly used as an insulating and arc quenching medium in high voltage electrical equipment. For the intended application, there is no identified alternative substance available on the market that is suitable for the high voltage equipment installed at the Facility.

J. SF₆ is a GHG, and a regulated New Source Review pollutant under the Prevention of Significant Deterioration (PSD) permitting program. *See* Table A-1 to 40 CFR Part 98.

K. Electrical equipment containing GIS were installed at the Facility in September and October 2018 and Shell intends to energize the electrical equipment on November 12, 2019.

L. Pursuant to the manufacturer's specifications and guarantee, SF₆ is emitted to the atmosphere through leakage from sealed compartments from GIS at the MIS and PDS at a leak

rate no greater than 0.1% per year (at normal filling pressure), and the GIS at the other electrical equipment at the Facility, which contain less SF₆ than the MIS and PDS GIS, have a leak rate no greater than 0.5% per year (at normal filling pressure).

M. Shell included general references to SF₆ as a GHG and SF₆ equipment leaks in the 2014 and 2015 plan approval applications. However, GIS and GIS specifications were not identified in the applications, nor did the applications identify any potential to emit SF₆ from the GIS. The plan applications also did not contain a BACT analysis for the SF₆ emissions from the GIS.

N. The GIS identified in Paragraph H were not identified as air contamination sources in in Plan Approval No. 04-00740A.

O. The Facility's potential GHG emissions as authorized in Plan Approval No. 04-00740A were 2,248,293 TPY of carbon dioxide equivalents (CO₂e), which exceeds the major source threshold of 100,000 TPY CO₂e.

P. Potential emission of SF₆ from GIS installed at the Facility is estimated to be 75 lb/year, which converts to 858 TPY CO₂e, or 0.04% of the total GHG that the Facility is authorized to emit under Plan Approval No. 04-00740A.

Q. The GIS installed at the Facility are air contamination sources as that term is defined in 25 Pa. Code § 121.1.

R. Pursuant to Section 6.1(a) of the Air Pollution Control Act, 35 P.S. § 4006.1(a), and 25 Pa. Code § 127.11, a person may not install or construct an air contamination source without prior Department approval.

S. Pursuant to Section 6.1(b) of the Air Pollution Control Act, 35 P.S. § 4006.1(b), and 25 Pa. Code § 127.402, a person may not operate an air contamination source without prior Department approval.

T. Each day of operation constitutes a separate violation of Section 6.1(b) of the Air Pollution Control Act, 35 P.S. § 4006.1(b), and 25 Pa. Code § 127.402.

U. Shell's installation of and/or construction of GIS at the Facility without prior Department approval violated Section 6.1(a) of the Air Pollution Control Act, 35 P.S. § 4006.1(a), and 25 Pa. Code § 127.11.

V. Shell's operation of GIS at the Facility without prior Department approval is in violation of Section 6.1(b) of the Air Pollution Control Act, 35 P.S. § 4006.1(b), and 25 Pa. Code § 127.402.

W. The violations described in Paragraphs U and V constitute unlawful conduct under Section 8 of the Air Pollution Control Act, 35 P.S. § 4008; and a statutory nuisance under Section 13 of the Air Pollution Control Act, 35 P.S. § 4013; and subject Shell to civil penalty liability under Section 9.1 of the Air Pollution Control Act, 35 P.S. § 4009.1.

X. Shell maintains that it made a good faith effort to comply with the Air Pollution Control Act. Shell has been working cooperatively with the Department in resolving the matters as outlined in this COA.

After full and complete negotiation of all matters set forth in this COA and upon mutual exchange of covenants contained herein, the parties desiring to avoid litigation and intending to be legally bound, it is hereby ORDERED by the Department and AGREED to by Shell as follows:

1. Authority. This COA is an Order of the Department authorized and issued pursuant to Sections 4(9) and 10.1 of the Air Pollution Control Act, 35 P.S. § 4004(9) and 4010.1; and Section 1917-A of the Administrative Code, 71 P.S. § 510-17.

2. Findings.

a. Shell agrees that the findings in Paragraph A through X, above, are true and correct, and, in any matter or proceeding involving Shell and the Department, Shell shall not challenge the accuracy or validity of these findings.

b. The parties do not authorize any other persons to use the findings in this COA in any matter or proceeding.

3. Corrective Action.

a. **Submission of plan approval application.** Within forty five (45) days of the date of this COA, Shell shall submit to the Department a full and complete application to authorize the installation and temporary operation of all GIS currently installed at the facility and any GIS that Shell intends to install at the Facility in the future ("GIS Application"). The GIS Application shall be submitted on the Department's forms and satisfy the requirements of 25 Pa. Code Chapter 127.

b. **Responses to comments.** Shell shall respond to any Department comments, deficiency notifications, or requests for additional information pertaining to the GIS Application within the time frame requested by the Department.

c. **GIS requirements while GIS Application is pending.** While the GIS Application is pending with the Department, Shell shall do the following things:

i. GIS shall be maintained and operated in accordance with manufacturer's specifications and recommendations.

- ii. Density/pressure monitors on each GIS shall be operable and be functioning properly at all times.
- iii. An alarm shall be set to sound if 10% of the SF₆ gas initially loaded into any compartment escapes.
- iv. Within three (3) months of signing the COA, Shell shall have present at the Facility an infrared camera that is capable of detecting leaks of SF₆ from GIS ("SF₆ Camera"). In addition, Shell shall have personnel on site who are qualified to use the SF₆ Camera.
- v. For purposes of this COA, a "leak" from GIS shall be any detection of leakage from the GIS that is visible using the SF₆ Camera.
- vii. Each GIS shall be checked for leakage using the SF₆ Camera no less frequently than once every three months.
- viii. Shell shall cause any leak from a GIS to be repaired as soon as possible but in no event longer than 15 days from detection of the leak.
- ix. A Multi Zone SF₆ Gas Monitor shall be installed to monitor SF₆ at the MIS, and shall be operable and functioning properly at all times.
- x. The total GHG emission from the Facility, including GHG emissions from the GIS, shall not exceed the amount previously authorized by Plan Approval No. 04-00740A – that is, 2,248,293 TPY CO₂e.
- xi. Unless and until a plan approval for the Facility that contains the GIS is issued by the Department, no additional SF₆ shall be added to any GIS compartment.

xii. GIS shall otherwise be operated and maintained to be in compliance with the Air Pollution Control Act and the Department's air quality regulations.

4. Civil Penalty Settlement. Within ten (10) days of complete execution of this COA, Shell shall pay a civil penalty of \$10,000 in settlement of the Department's claim for civil penalties for the violations set forth in Paragraphs U & V, above, covering the period from the installation of GIS until the date of this COA. The payment shall be made by corporate check or the like made payable to the "Commonwealth of Pennsylvania – Clean Air Fund" and sent to:

Program Manager
Air Quality Program
Department of Environmental Protection
400 Waterfront Drive
Pittsburgh, PA 15222-4745

5. Stipulated Civil Penalties.

a. For each month or part thereof from the date of this COA until such time as a modified plan approval for the Facility that contains the GIS is issued by the Department, Shell shall pay a civil penalty of \$1,250.

b. In the event Shell fails to comply in a timely manner with any term or provisions of Paragraph 3.a & 3.b, above, Shell shall be in violation of this COA and, in addition to other applicable remedies, shall pay a civil penalty in the amount of \$250 per day for each violation.

c. In the event Shell fails to comply in a timely manner with any term or provisions of Paragraph 3.c, above, Shell shall be in violation of this COA and, in addition to other applicable remedies, shall pay a civil penalty in the amount of \$ 500 per day for each violation.

d. Stipulated civil penalty payments shall be payable monthly on or before the fifteenth day of each succeeding month, and shall be forwarded as described in Paragraph 4 (Civil Penalties), above.

e. Any payment under this paragraph shall neither waive the Shell's duty to meet its obligations under this COA nor preclude the Department from commencing an action to compel Shell's compliance with the terms and conditions of this COA. The payment resolves only Shell's liability for civil penalties arising from the violations of this COA for which the payment is made.

f. The stipulated civil penalties shall be due automatically and without notice.

6. Additional Remedies.

a. In the event Shell fails to comply with any provision of this COA, the Department may, in addition to the remedies prescribed herein, pursue any remedy available for a violation of an order of the Department, including an action to enforce this COA.

b. The remedies provided by this paragraph and Paragraph 5 (Stipulated Civil Penalties) are cumulative, and the exercise of one does not preclude the exercise of any other. The failure of the Department to pursue any remedy shall not be deemed to be a waiver of that remedy. The payment of a stipulated civil penalty, however, shall preclude any further assessment of civil penalties for the violation for which the stipulated penalty is paid.

7. Reservation of Rights. The Department reserves the right to require additional measures to achieve compliance with applicable law. Shell reserves the right to challenge any action which the Department may take to require those measures.

8. Liability of Operator. Shell shall be liable for any violations of the COA, including those caused by, contributed to, or allowed by its officer's agents, employees, or contractors. Shell also shall be liable for any violation of this COA caused by, contributed to, or allowed by its successors and assigns.

9. Transfer of Site.

a. The duties and obligations under this COA shall not be modified, diminished, terminated or otherwise altered by the transfer of any legal or equitable interest in the Facility or any part thereof.

b. If Shell intends to transfer any legal or equitable interest in the Facility which is affected by this COA, Shell shall serve a copy of this COA upon the prospective transferee of the legal and equitable interest at least thirty (30) days prior to the contemplated transfer and shall simultaneously inform the Southwest Regional Office of the Department of such intent.

10. Correspondence with Department. All correspondence with the Department concerning this COA shall be addressed to:

Elizabeth Speicher
Operations Chief
Air Quality Program
Department of Environmental Protection
400 Waterfront Drive
Pittsburgh, PA 15222-4745
(412) 442-5214
espeicher@pa.gov

11. Correspondence with Shell. All correspondence with Shell concerning this COA shall be addressed to:

H. James Sewell
Environmental Manager
4301 Dutch Ridge Road

Beaver, Pennsylvania 15009
(724) 709-2411
Jim.sewell@shell.com

Shell shall notify the Department whenever there is a change in the contact person's name, title, or address. Service of any notice or any legal process for any purpose under this COA, including its enforcement, may be made by mailing a copy by first class mail to the above address.

12. Force Majeure.

a. In the event that Shell is prevented from complying in a timely manner with any time limit imposed in this COA solely because of a strike, fire, flood, act of God, or other circumstance beyond Shell's control and which Shell, by the exercise of all reasonable diligence, is unable to prevent, then Shell may petition the Department for an extension of time. An increase in the cost of performing the obligations set forth in this COA shall not constitute circumstances beyond Shell's control. Shell's economic inability to comply with any of the obligations of this COA shall not be grounds for any extension of time.

b. Shell shall only be entitled to the benefits of this paragraph if it notifies the Department within five (5) working days by telephone and within ten (10) working days in writing of the date it becomes aware or reasonably should have become aware of the event impeding performance. The written submission shall include all necessary documentation, as well as a notarized affidavit from an authorized individual specifying the reasons for the delay, the expected duration of the delay, and the efforts which have been made and are being made by Shell to mitigate the effects of the event and to minimize the length of the delay. The initial written submission may be supplemented within ten working days of its submission. Shell's failure to comply with the requirements of this paragraph specifically and in a timely fashion shall render this paragraph null and of no effect as to the particular incident involved.

c. The Department will decide whether to grant all or part of the extension requested on the basis of all documentation submitted by Shell and other information available to the Department. In any subsequent litigation, the Shell shall have the burden of proving that the Department's refusal to grant the requested extension was an abuse of discretion based upon the information then available to it.

13. Severability. The paragraphs of this COA shall be severable and should any part hereof be declared invalid or unenforceable, the remainder shall continue in full force and effect between the parties.

14. Entire Agreement. This COA shall constitute the entire integrated agreement of the parties. No prior or contemporaneous communications or prior drafts shall be relevant or admissible for purposes of determining the meaning or extent of any provisions herein in any litigation or any other proceeding.

15. Attorney Fees. The parties shall bear their respective attorney fees, expenses and other costs in the prosecution or defense of this matter or any related matters, arising prior to execution of this COA.

16. Modifications. No changes, additions, modifications, or amendments of this COA shall be effective unless they are set out in writing and signed by the parties hereto.

17. Titles. A title used at the beginning of any paragraph of this COA may be used to aid in the construction of that paragraph, but shall not be treated as controlling.

18. Decisions Under Consent Order. Any decision which the Department makes under the provisions of this COA, including a notice that stipulated civil penalties are due, is intended to be neither a final action under 25 Pa. Code § 1021.2, nor an adjudication under 2 Pa.

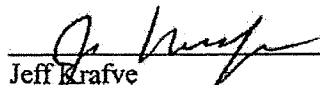
C.S. § 101. Any objection which Shell may have to the decision will be preserved until the Department enforces this COA.

19. Termination. The obligations of Paragraph 3 shall terminate at such time as a plan approval for the Facility that contains the GIS is issued by the Department, or such other date if the Department determines in writing that termination is appropriate.

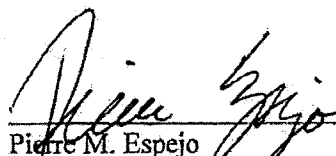
20. Execution of Agreement. This COA may be signed in counterparts, which may be transmitted by facsimilia or electronically by portable document format (.pdf), each of which shall be deemed to be an original and all of which together shall constitute one and the same instrument.

IN WITNESS WHEREOF, the parties hereto have caused this COA to be executed by their duly authorized representatives. The undersigned representatives of Shell certify under penalty of law, as provided by 18 Pa. C.S. § 4904, that they are authorized to execute this COA on behalf of Shell; that Shell consents to the entry of this COA as a final ORDER of the Department; and that Shell hereby knowingly waives its right to appeal this COA and to challenge its content or validity, which rights may be available under Section 4 of the Environmental Hearing Board Act, Act of July 13, 1988, P.L. 530, 35 P.S. § 7514; the Administrative Agency Law, 2 Pa. C.S. § 103(a) and Chapters 5A and 7A; or any other provisions of law. (Signature by Shell's attorney certifies only that the agreement has been signed after consulting with counsel.)

FOR SHELL CHEMICAL APPALACHIA
LLC:



Jeff Krafve
Operations Manager



Pierre M. Espejo
Senior Legal Counsel

FOR THE COMMONWEALTH OF
PENNSYLVANIA, DEPARTMENT OF
ENVIRONMENTAL PROTECTION:

Mark A. Gorog
Program Manager
Southwest Region Air Quality

Michael J. Heilman
Assistant Regional Counsel


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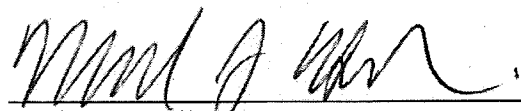
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