



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

**MEMO**

**TO** Air Quality Permit File PA-26-00413B

**FROM** Alexander Sandy   
Air Quality Engineering Specialist  
Air Quality Program

**THROUGH**   
Mark A. Wayner, P.E.  
Regional Manager  
Air Quality Program

**DATE** February 19, 2014

**RE** Response to Public Comments  
Texas Eastern Transmission, LP  
Uniontown Compressor Station  
North Union Township, Fayette County  
APS 789660 Auth 940427 PF 258165

On August 29, 2012, the Department received a plan approval application from Michael Baker Jr., Inc. (MBJ) on behalf of Texas Eastern Transmission, LP (TE) to uprate the two existing turbines at the Uniontown Compressor Station (Uniontown) located in North Union Township, Fayette County. Review of this application by the Department has been completed and in accordance with 25 Pa. Code §§ 127.44-45, notice of intent to issue the plan approval was published in the *Pennsylvania Bulletin* on January 4, 2014, beginning the 30-day public comment period. Copies of the draft plan approval, review memo, and Bulletin notice were sent to the applicant and U.S. Environmental Protection Agency (EPA) on December 23, 2013. The 30-day public comment period ended at the close of business on February 3, 2014.

On January 24, 2014, Group Against Smog & Pollution (GASP) conducted an informal file review of the proposed plan approval. On February 4, 2014, revised greenhouse gas emission calculations were received from the applicant per the Department's request. The revised calculations take into account the revised global warming potential (GWP) for methane in Table A-1 of 40 CFR Part 98 Subpart A. Effective January 1, 2014, methane's GWP was increased from 21 to 25. The revised emissions result in 0.12% increase in facility-wide GHG (CO<sub>2</sub>e) emissions.

The Department received comments from a total of nine (9) commenters. This document summarizes the comments received by the Department pertaining to the proposed plan approval and the Department's responses to those comments. No comments were received on behalf of the EPA or the applicant. Comments with similar

concerns have been grouped and responses for these grouped comments are provided first. Each individual comment is then summarized and responses are provided. Responses are only provided to comments which are within the scope of this Air Quality plan approval application review and in which the Department is provided authority under the Pennsylvania Air Pollution Control Act and the Federal Clean Air Act.

#### List of Commenters

<b>ID</b>	<b>Date Received</b>	<b>Name</b>	<b>Affiliation</b>
1	1/23/2014	Phillip A. Johnson	Private Citizen
2	1/23/2014	Scott Felgar	Private Citizen
3	1/29/2014	Samantha Gurry	Private Citizen
4	1/29/2014	Russell Zerbo	Private Citizen
5	1/30/2014	Judy Hanzas	Private Citizen
6	2/3/2014	James E. Rosenberg	Private Citizen
7	2/3/2014	Joseph Otis Minott	Clean Air Council
8	2/3/2014	Beverly Braverman	Mountain Watershed Association
9	2/3/2014	Marigrace Butela	Private Citizen

## Comments and Responses

### Grouped Comments and Responses

1. **Comment:** Public Hearing: Six commenters have requested the Department hold a public hearing prior to issuing this plan approval (1, 2, 3, 4, 6, 8).

**Response:** Per 25 Pa. Code § 127.48(a), “Prior to any plan approval issuance, the Department may, in its discretion, hold a fact finding conference or hearing... however, that in no event will the Department be required to hold such a conference or hearing.” Based on the number of comments received and requests for a public hearing, substantial public interest has not been expressed. Of the six commenters requesting a public hearing, four commenters are located within approximately twenty five miles of the facility, the nearest being over ten miles away. This does not provide sufficient evidence of substantial local public interest to grant a public hearing. Therefore, in its discretion, the Department does not believe that a public hearing is warranted and that the existing plan approval review memorandum and this comment and response document are sufficient to address public interest. Thank you for your comment submittals and expressed interest in this proposed plan approval.

2. **Comment:** Extend the Public Comment Period: Two commenters have requested the Department extend the public comment period (5, 8).

**Response:** In accordance with 25 Pa. Code §§ 127.44-45 notice of intent to issue the plan approval was published in the *Pennsylvania Bulletin* on January 4, 2014. Per 25 Pa. Code §§ 127.46, “A protest to a proposed action shall be filed with the Department within 30 days of the date that notice of the proposed action was published under § 127.44 (relating to public notice).” The public comment period for this plan approval ended close of business February 3, 2014. The Department does not believe that extension of the public comment period is warranted.

3. **Comment:** VOC PTE: Three commenters have expressed concern that the facility-wide volatile organic compounds (VOCs) potential to emit (PTE) may exceed the major source threshold of 50 tpy (1, 6, 8).

**Response:** 25 Pa. Code § 121.1 defines *Potential to emit* (PTE) in relevant part as “The maximum capacity of a source to emit a pollutant under its physical and operational design.” This definition includes consideration of physical or operational limitations which are federally enforceable. This plan approval application has been reviewed according to the physical and operational designs proposed. Conditions have been included in the proposed plan approval to limit PTE and to require periodic demonstration of compliance with limits and annual emissions reporting. The Department relied on manufacturer warranted or “not to exceed” emission rates and control efficiencies when calculating PTE. These values represent either the maximum emission rate or minimum attainable control efficiency. This plan approval also includes monitoring and recordkeeping requirements to be used for compliance demonstration purposes. The post project facility-wide VOC PTE has been calculated to be 48.5 tpy which is below the major source threshold of 50 tpy. Actual emissions are expected to be less than PTE.

4. **Comment:** PA Constitution Article 1: Two commenters believe this facility causes a violation of Pennsylvania Constitution Article 1 Section 27 (1, 2).

**Response:** The Department’s issuance of this plan approval is consistent with applicable statutory and regulatory requirements. These requirements, as well as the considerations undertaken by the Department and the terms and conditions of this plan approval, satisfy Article I, Sec 27 of the Pennsylvania Constitution. This project results in a reduction of all criteria pollutants and total hazardous air pollutants (as shown in Table 1 below). Therefore, the Department intends to issue this plan approval.

**Table 1: Facility-Wide PTE Comparison**

Pollutant	Pre-Project PTE (tpy)	Post Project PTE (tpy)	Difference (tpy)
NO <sub>x</sub>	153.79	81.51	-72.28
CO	82.97	51.79	-31.18
PM <sub>10</sub>	7.07	5.75	-1.32
PM <sub>2.5</sub>	7.07	5.75	-1.32
SO <sub>x</sub>	3.59	2.90	-0.69
VOC	49.50	48.50	-1.00
Formaldehyde	2.74	0.38	-2.36
HAP <sup>b</sup>	8.01	5.06	-2.95
CO <sub>2e</sub>	153,101	129,851	-23,250

5. **Comment:** Cumulative Effect: Fayette County has 24 compressor stations but no air quality monitoring stations. Aggregation is not considered and the cumulative effect of these minor sources on air quality should be looked at (2, 8).

**Response:** A cumulative aggregate study of regional emissions is outside of the scope of this plan approval application review. The Department has performed a single source analysis and determination which is summarized in the Department’s review memo<sup>1</sup> for this plan approval application. The determination has been made in accordance the Department’s *Guidance for Performing Single Stationary Source Determinations for Oil and Gas Industries* effective on October 6, 2012. The Department has determined that emissions from Uniontown should not be aggregated with any other source.

<sup>1</sup> See Department of Environmental Protection Southwest Regional Office, Review of Plan Approval Application, PA-26-00413B, December 19, 2013, pages 11-12.

## Individual Comments and Responses

1. **Comment:** The proposed plan approval is in violation of Pennsylvania Constitution Article 1 Section 27 and a public hearing should be held.

**Response:** See responses to grouped comments #1 and 4 above.

2. **Comment:** Facility-wide volatile organic compound (VOC) potential to emit (PTE) is dangerously close to the Nonattainment New Source Review (NNSR) major source threshold of 50 tpy.

Fayette County has 24 compressor stations but no air quality monitoring stations. Aggregation is not considered and the cumulative effect of these minor sources on air quality should be looked at.

The proposed plan approval is in violation of Pennsylvania Constitution Article 1 Section 27 and a public hearing should be held.

**Response:** See responses to grouped comments #1, 4, and 5 above.

3. **Comment:** Commenter requests that the Department holds a public hearing.

Has the Department ensured that approving this station will not deteriorate regional air quality and jeopardize compliance with the National Ambient Air Quality Standards (NAAQS)?

Commenter insists the Department reviews the company's suggestions on technology and any calculation or analysis done by the company.

**Response:** The Department, in its discretion, does not believe that a public hearing is warranted. Please see response to grouped comment #1.

The Clean Air Act required EPA to set NAAQS for pollutants considered harmful to public health and the environment and establishes two levels of national air quality standards:

- a. Primary standards set limits to protect public health, including the health of "sensitive" populations such as asthmatics, children, and the elderly; and
- b. Secondary standards set limits to protect public welfare, including protection against decreased visibility, damage to animals, crops, vegetation, and buildings.

Per 25 Pa. Code 127.12(a)(6), "An application for approval shall... Show that the source will not prevent or adversely affect the attainment or maintenance of ambient air quality standards when requested by the Department." Minor sources of air contamination (with respect to criteria pollutants) are not expected to cause an exceedance of the NAAQS or exceed the significant impact levels for the NAAQS. Modeling demonstration is normally required for new air contamination sources subject to Prevention of Significant Deterioration (PSD) requirements. This plan approval results in a decrease in PTE of all criteria pollutants and is not subject to the requirements of PSD, therefore a modeling

demonstration will not be required. The Department has reviewed the proposed technology and emissions calculations which are summarized in the review memo for this plan approval.<sup>2</sup> The Department has found the proposed equipment and emissions calculations acceptable and intends to issue this plan approval.

4. See comment and response to individual comment #3 directly above.
5. **Comment:** Commenter requests the Department extends the public comment period for this plan approval.

**Response:** See response to grouped comment #2 above.

6. The commenter has submitted the following 8 comments:

**Comment 1:** There is a material omission from Application in failing to list a Notice of Violation for Inspection ID 2120319 in its Air Pollution Control Act Compliance Review Form.

**Response:** The applicant submitted an Air Pollution Control Act Compliance Review Supplemental Form on February 5, 2013, which includes the noted violation at the Bernville station. Also, see above response to grouped comment #3 above.

**Comment 2:** The decision not to evaluate VOC in Memo is incorrect, due to failure of the analysis of VOC for the prior permit to take account of all information (e.g. blowdown and malfunction).

**Response:** This facility is and will remain below the NNSR major source threshold for VOC as a result of this plan approval. Therefore a VOC NNSR applicability analysis was not required. Regardless, this project does not result in a significant increase or net significant increase of VOC. Also, see response to grouped comment #3 above.

**Comment 3:** A correct analysis of Plan PTE for VOC must conclude that Uniontown Compressor Station is a Major Source of VOC.

**Response:** See response to grouped comment #3 above.

**Comment 4:** Plan fails to meet DEP's own standard for Leak Detection BAT.

**Response:** In accordance with 25 Pa. Code § 127.1, new air contamination sources shall control emissions to the maximum extent, consistent with best available technology (BAT) as determined by the Department as of the date of issuance of the plan approval for the new source.

Per 25 Pa. Code § 121.1, a new source is a stationary air contamination source which:

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<sup>2</sup> See Department of Environmental Protection Southwest Regional Office, Review of Plan Approval Application, PA-26-00413B, December 19, 2013.

- (i) Was constructed and commenced operation on or after July 1, 1972.
- (ii) Was modified, irrespective of a change in the amount or kind of air contaminants emitted, so that the fixed capital cost of new components exceeds 50% of the fixed capital cost that would be required to construct a comparable entirely new source; fixed capital costs means the capital needed to provide the depreciable components.

BAT for the two turbines was established when they were originally authorized under plan approvals 26-399-001 and 26-399-005 on May 16, 1990, and April 23, 1992, respectively. The proposed uprate of the existing turbines does not meet the definition of new source; therefore BAT was not re-evaluated for this plan approval. Regardless, upon guidance from Central Office, the following leak detection and repair condition will be included in this plan approval:

*[25 Pa. Code §127.12b]*

*Plan approval terms and conditions.*

### **TESTING REQUIREMENTS.**

- (a) *Within 180 days after issuance of PA-26-00413B, and annually thereafter, the permittee shall develop and perform a leak detection and repair (LDAR) program that includes the use of an optical gas imaging camera such as a forward looking infrared (FLIR) camera or a gas leak detector capable of reading methane concentrations in air of 0% to 5% with an accuracy of +/- 0.2%. The permittee may request, in writing, the use of other leak detection monitoring devices, approved, in writing, by the Department.*
- (b) *The LDAR program must be conducted on valves, flanges, connectors, storage vessels/storage tanks, and compressor seals in natural gas or hydrocarbon liquids service. A release from any equipment or component designed by the manufacturer to protect the equipment, controller(s), safety of personnel, to prevent ground water contamination, to prevent gas migration, or an emergency situation is not considered a leak. Leaks shall be repaired no later than 15 calendar days after leaks are detected unless facility shutdowns or ordering of replacement parts are necessary for repair of the leaks.*
- (c) *The permittee must submit a written request to the Southwest Regional Office for an extension of LDAR deadlines. This includes extensions required due to facility shutdowns and/or the ordering of replacement parts. The written request shall also include the reason(s) for the extension request and the schedule for completion of the repairs. The Department may grant an extension of the LDAR deadlines based upon the written request.*
- (d) *The optical gas imaging camera or other Department-approved gas leak detection equipment shall be operated in accordance with manufacturer-recommended procedures.*
- (e) *A leak is considered repaired if one of the following can be demonstrated:*
  - (1) *No detectable emissions consistent with EPA Method 21 specified in 40 CFR Part 60, Appendix A;*
  - (2) *A concentration of 2.5% methane or less using a gas leak detector and a VOC concentration of 500 ppm or less;*
  - (3) *No visible leak image when using an optical gas imaging camera;*
  - (4) *No bubbling at leak interface using a soap solution bubble test specified in EPA Method 21; or a procedure based on the formation of bubbles in a soap solution that is sprayed on a potential leak source may be used for those sources that do not have continuously moving parts and that do not have a surface temperature greater than the boiling point or less than the freezing point of the soap solution; or*

- (5) Any other method approved, in writing, by the Department.
- (f) The permittee of a facility shall, at a minimum, on a monthly basis perform audible, visual, and olfactory (AVO) inspections.

### **Recordkeeping**

- (a) The permittee shall maintain a log for the results of each monthly AVO inspections, including date of each inspection performance and the name of the company representative performing the inspection.
- (b) Leaks, repair methods and repair delays shall be recorded and maintained for a period of five years.
- (c) All information generated to satisfy this recordkeeping condition shall be kept for a minimum of five years and shall be made available to the Department upon request.

**Comment 5:** There have been no submittals attesting to adequate training of all Texas Eastern personnel who work at Uniontown Compressor Station in the prevention of incidents such as Bernville 10/29/2012.

**Response:** The work practice standards included in the proposed plan approval are sufficient to adequately ensure good operating practices. Any violation of the plan approval conditions, the Clean Air Act, or Air Pollution Control Act will be assessed by the Department's compliance section.

**Comment 6:** Memo fails to evaluate Texas Eastern's air model for Uniontown Compressor Station submitted under FERC Docket CP13-84.

**Response:** Based upon Texas Eastern's submittal to FERC under Docket CP13-84 titled "Response to FERC June 5, 2013 Data Request, Resource Report 9, Question 5," the AERSCREEN results summary for Uniontown on page 24 of 27 shows it is below the NAAQS for 1-hour and annual NO<sub>2</sub>, 1-hour and 8-hour CO, 1-hour SO<sub>2</sub>, 24-hour PM<sub>10</sub>, 24-hour PM<sub>2.5</sub>, and annual PM<sub>2.5</sub>. Also, see response to individual comment #3 above.

**Comment 7:** There has been no proper analysis of probability of exposure to acute-effect toxic substance disease from amounts of pollution permitted as Uniontown Compressor Station PTE.

**Response:** Although outside of the scope of this plan approval application review, on November 1, 2010, the Department released findings obtained during a short-term five-week monitoring program conducted near several natural gas related facilities in the Washington and Greene County areas of Pennsylvania.<sup>3</sup> Sampling for carbon monoxide, nitrogen dioxide, and ozone, did not detect levels above National Ambient Air Quality Standards at any of the sampling sites. Canister sampling detected the following compounds which are most likely related to the Marcellus Shale drilling activities: acetone, benzene, n-heptane, propene, and toluene. Concentrations of these pollutants were at, or slightly higher than, levels detected at Department monitoring network sites. However, none were detected at levels of concern. Screening results found during the five-week study do not indicate a potential for major air-related health issues associated with the Marcellus Shale natural gas activities.

<sup>3</sup> [http://www.dep.state.pa.us/dep/deputate/airwaste/aq/aqm/docs/Marcellus\\_SW\\_11-01-10.pdf](http://www.dep.state.pa.us/dep/deputate/airwaste/aq/aqm/docs/Marcellus_SW_11-01-10.pdf)



Also outside of the scope of this plan approval application review, on July 23, 2012, the Department announced the commencement of a long-term, one-year air monitoring study of Marcellus Shale development in Washington County. On August 1, 2013, the Department announced<sup>4</sup> that its long-term air monitoring study in southwestern Pennsylvania will continue through the end of the year. The agency also released a technical support document<sup>5</sup> that provides additional information about the study's scope and process.

Also, see response to individual comment #3 above.

**Comment 8:** Because noise caused by blowdown and uncontrolled release is a perceptible indicator of emissions which may include regulated air pollutants, excessive blowdown noise must be explicitly included in the factors requiring reporting of malfunction.

**Response:** There are no regulations under the Pennsylvania Air Pollution Control Act or the Federal Clean Air Act that specify an acceptable level of noise associated with the construction or operation of a facility. Pennsylvania Act 13 of 2012 includes noise restrictions for compressor stations in local ordinances of 60 decibels (dBA) at the fenceline. FERC requires compressor stations to limit noise to 55 dBA. Consequently, noise that causes a public nuisance is not expected to result from this approval.

7. **Comment:** Clean Air Council (Council) has submitted the following comments:

- a. Paragraph 007 of Section C, Part 1, imposes an emissions cap that is not a legally and practically enforceable limit. The requirement states only that Texas Eastern must limit VOC emissions from the turbines, standing and working losses, truck loading losses, and gas release events to 37.28 tpy.

**Response:** Per 25 Pa. Code § 121.1, potential to emit is defined as “The maximum capacity of a source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the source to emit a pollutant, including air pollution control equipment and limitations on hours of operation or on the type or amount of material combusted, stored or processed shall be treated as part of the design if the limitation or the effect it would have on emissions is Federally enforceable or legally and practicably enforceable by an operating permit condition. The term does not include secondary emission from an offsite facility.”

This plan approval establishes short term emission limits, source testing requirements, fuel usage monitoring and recordkeeping, and hours of operation and throughput of pipeline liquids and natural gas recordkeeping that are legally and practicably enforceable in demonstrating compliance with the emission limits.

- b. PA DEP should not allow Texas Transmission to avoid NOx major source status through limiting its fuel usage...A technology requirement has the further benefit of being more easily enforced, as compared to a limitation on fuel.

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<sup>4</sup> [http://files.dep.state.pa.us/Air/AirQuality/AQPortalFiles/rls-DEP-AQStudyUpdate-073013\\_FINAL\\_DRAFT.pdf](http://files.dep.state.pa.us/Air/AirQuality/AQPortalFiles/rls-DEP-AQStudyUpdate-073013_FINAL_DRAFT.pdf)

<sup>5</sup> [http://files.dep.state.pa.us/Air/AirQuality/AQPortalFiles/TSD\\_for\\_Marcellus\\_LTMS\\_Final\\_August\\_2013.pdf](http://files.dep.state.pa.us/Air/AirQuality/AQPortalFiles/TSD_for_Marcellus_LTMS_Final_August_2013.pdf)

**Response:** In accordance with 25 Pa. Code § 127.206(k), this facility will continue to be treated as major source of NOx in the future when considering the applicability of Subchapter E related to New Source Review. Limiting the turbine fuel usage effectively limits the PTE and is legally and practically enforceable as this plan approval will require the applicant to monitor and keep records of turbine fuel usage which will be used to calculate actual emissions to demonstrate compliance.

8. **Comment:** Commenter requests an extension of the 30-day public comment period and that the Department holds a public hearing.

Fayette County has 24 compressor stations but no air quality monitoring stations. Cumulative effect of these stations should be considered.

PTE calculations should be revised and additional continuous monitoring conditions should be required.

**Response:** See responses to grouped comments #1, 2, 3, and 5 above. Also, see response to individual comment #6 above.

9. **Comment:** The commenter has submitted email attachments of comments provided on August 27, 2013, related to public participation during minor source determinations and Article 1 Section 27 of the PA Constitution.

**Response:** The Department appreciates the expressed interest in this proposed plan approval however the commenter has not provided specific comments to this plan approval application. Also see response to grouped comment #4 above.