



GROUP AGAINST SMOG & POLLUTION
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August 1, 2017

VIA ONLINE SUBMISSION: <http://www.ahs.dep.pa.gov/eComment/>

Policy Office
Department of Environmental Protection
Rachel Carson State Office Building
P.O. Box 2063
Harrisburg, PA 17105-2063

Re: Pennsylvania's 2017 Annual Ambient Air Monitoring Network Plan

To Whom it Concerns:

Kindly accept for consideration the following comments of the Group Against Smog and Pollution ("GASP") regarding Pennsylvania's 2017 Annual Ambient Air Monitoring Network Plan (the "2017 Network Plan"). The online comment submission website noted above states that the comment period ends August 1, 2017.

Thank you in advance for your consideration of these comments.

Very truly yours,

/s

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**COMMENTS OF GROUP AGAINST SMOG & POLLUTION REGARDING
THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION'S
2017 ANNUAL AMBIENT AIR MONITORING NETWORK PLAN**

The Clean Air Act requires each state implementation plan to “provide for establishment and operation of appropriate devices, methods, systems, and procedures necessary to ... monitor, compile, and analyze data on ambient air quality.”¹ Title 40 of the Code of Federal Regulations, Part 58, specifies requirements for conducting “Ambient Air Quality Surveillance” capable of producing data to support “the State Implementation Plans (SIP), national air quality assessments, and policy decisions.”² In addition to compliance monitoring, objectives for a monitoring network also include providing “air pollution data to the general public in a timely manner” and supporting “air pollution research studies.”³

I. Monitoring Air Quality Impacts Associated with the Oil and Gas Industry

In 2013, DEP declared that it would “conduct monitoring of both the ambient air as well as emissions from shale gas facilities, conduct a thorough analysis of ... the data collected, and based on ... [that] data, install additional monitors as necessary.”⁴ DEP’s 2015 Network Plan noted “the agency’s continued commitment to ... assess air quality impacts related to shale gas activities in Pennsylvania, in both the southwestern and Northern Tier regions of the Commonwealth.”⁵ In a presentation the following Spring announcing DEP’s proposed

¹ 42 U.S.C. § 7410(a)(2)(B).

² 40 C.F.R. § 58.2(a)(5).

³ Office of Air Quality Planning and Standards, US EPA, *Quality Assurance Handbook for Air Pollution Measurement Systems, Volume II: Ambient Air Quality Monitoring Programs* § 1.0 (U.S.E.P.A Pub. No. EPA-454/B-17-001) (2017); *see also* 40 C.F.R. Part 58, App. D § 1.1.

⁴ Department of Environmental Protection, Commonwealth of Pennsylvania, *2013 Annual Ambient Air Monitoring Network Plan, Comment/Response Document*, at 5 (July 12, 2013).

⁵ Department of Environmental Protection, Commonwealth of Pennsylvania, *2015 Annual Ambient Air Monitoring Network Plan, Comment/Response Document*, at 1 (July 2015).

expansion of its particulate matter air monitoring network in these regions, then-DEP Secretary Quigley pronounced that “[b]y conducting more robust monitoring we will close a gap in our monitoring capacity and gather more data that will enable us to determine what is and what is not a problem.”⁶ While designing this program, DEP considered feedback from “Pennsylvanians living near natural gas activities and compressor stations who expressed concerns about air quality.”^{7, 8}

Unfortunately, there is limited evidence of DEP following through on these promises. In the past two years, DEP has only added PM_{2.5} monitors to the pre-existing Holbrook (Greene County), Towanda (Bradford County), and Norristown (Montgomery County) sites; there have been no new monitors installed in the oil and gas regions of the Commonwealth over the past 18 months.⁹ Rather than commit to taking immediate action or explain the lack of progress to date, the 2017 Network Plan merely assigned new anticipated installation dates for monitoring sites 6 to 18 months into the future.¹⁰ DEP also suggested modifications to existing monitoring sites that appear to go against oil and gas monitoring objectives.¹¹

DEP must establish, unequivocally, the specific details of its plan to monitor the air quality impacts of oil and gas industry in Pennsylvania. DEP has flouted the clear requirements

⁶ Department of Environmental Protection, Commonwealth of Pennsylvania, *DEP Expands Particulate Matter Air Monitoring Network* (webinar), at 2:07 (April 27, 2016). The related press release, slides from the webinar, and audio of the webinar are available online: <http://www.dep.pa.gov/DataandTools/Webinars/Pages/Air-Quality.aspx>.

⁷ *Id.*, at 1:46.

⁸ As stated by DEP, the commitment to monitor ambient air quality near oil and gas operations would be in keeping with the federal requirements that monitoring networks “[p]rovide air pollution data to the general public in a timely manner” and support “air pollution research studies.” 40 C.F.R. Part 58, App. D § 1.1(a), (c). *See also Quality Assurance Handbook, supra* at §1.0.

⁹ Department of Environmental Protection, Commonwealth of Pennsylvania, *2017 Annual Ambient Air Monitoring Network Plan*, at D-26, D-48, and D-65 (July 2017). The 2017 Network Plan does not state when PM_{2.5} monitoring began at the Norristown site but DEP’s online records indicate monitoring began in January 2017; data available online: http://www.ahs.dep.pa.gov/air_apps/aadata/Reports/MonthlyParamDetail.aspx.

¹⁰ *2017 Network Plan, supra* at 18 (Table 6).

¹¹ *See discussion infra* regarding specific monitoring sites.

of 40 C.F.R. § 58.10(b)¹² regarding these sites for several years. EPA should not accept or approve DEP's 2017 Network Plan until DEP corrects these deficiencies with respect to, at the very minimum, the subsequently listed sites.

A. Fayette County

In July of 2015, DEP declared that it would add a new monitoring site in Fayette County to address concerns over emissions from oil and gas activities.¹³ This marked the first instance of DEP violating 40 C.F.R. § 58.10(b). DEP's proposal for the Fayette County site did not include, among other requirements, the "AQS site identification number[;] ... location, including street address and geographical coordinates[;] ... sampling and analysis method(s) for each measured parameter[; or] ... operating schedules for each monitor."¹⁴

The 2016 Network Plan did not correct these deficiencies. In fact, the 2016 Network Plan merely repeated – almost verbatim – the claim made in the 2015 Network Plan: that DEP will establish “a new ambient air monitoring site in Fayette County,” which will include “monitors for ozone, NO₂, PM_{2.5}, carbonyls and VOC.”¹⁵ DEP went on to state that it intended “to establish this site by the end of 2016.”¹⁶ Worth noting is that GASP submitted a comment on the 2016 Network Plan citing DEP's failure to comply with 40 C.F.R. § 58.10(b).¹⁷ DEP

¹² This section describes the required “information for each existing and *proposed* site” that must be submitted in the annual monitoring network plan. (emphasis added).

¹³ *2015 Network Plan, supra* at 20-21 (“DEP will locate the new monitoring site west of Uniontown, PA.”).

¹⁴ 40 C.F.R. § 58.10(b)(1)-(4).

¹⁵ Department of Environmental Protection, Commonwealth of Pennsylvania, *2016 Annual Ambient Air Monitoring Network Plan*, at 18 (July 2016). For comparison, *see also 2015 Network Plan, supra* at 20-21.

¹⁶ *2016 Network Plan, supra* at 18.

¹⁷ Department of Environmental Protection, Commonwealth of Pennsylvania, *2016 Annual Ambient Air Monitoring Network Plan, Comment/Response Document* at 3, (August 2016).

responded stating “the Department will reopen the pertinent portion of the Network Plan for public comment” after DEP “completes its analysis and proposes new PM_{2.5} locations.”¹⁸

In the 2017 Network Plan, DEP again failed to comply with the requirements of 40 C.F.R. § 58.10(b). The fact that DEP included two maps of the generalized area in which DEP intends to install the monitors¹⁹ cannot serve as a substitute for the “location, including street address and geographical coordinates” required by 40 C.F.R. § 58.10(b)(2). In addition, DEP’s request for “public input to assist in siting the planned monitoring station in Fayette County”²⁰ must fail as the “public notice and comment” period required under 40 C.F.R. § 58.10(a). The roughly two-square-mile area DEP proposed is not specific enough for any reader to offer a substantive comment regarding a site location. Moreover, one of the “three facilities” depicted near the proposed area *does not exist*.²¹ If such inaccuracies are indicative of DEP’s commitment to monitor impacts from the oil and gas industry in Fayette County, EPA must now insist that DEP comply with 40 C.F.R. Part 58 and move more purposefully toward installing the promised monitors without further delay.

B. Susquehanna and Wyoming Counties

These two northeastern counties each currently have one VOC monitoring site: Mehoopany in Wyoming County and Springville in Susquehanna County.²² Both counties have

¹⁸ 2016 Comment Response, *supra* at 3.

¹⁹ 2017 Network Plan, *supra* at 21-22.

²⁰ 2017 Network Plan, *supra* at 22.

²¹ Google Earth satellite imagery dated 10/5/2016 shows no development at the southern-most “compressor station” indicated on the map on page 22 of the 2017 Plan. Data from DEP’s own eFACTS system lists this “compressor station” as “proposed but never materialized.” See *attached* satellite imagery, eMap, and eFACTS as Exhibit “A”.

²² 2017 Network Plan, *supra* at 9-11 (Figure 3, Table 3).

a great deal of oil and gas activity.²³ Accordingly, DEP indicated that both counties would be included in DEP's expansion of its PM_{2.5} monitoring network and that the monitoring sites would be installed "by the end of 2016."²⁴ Although the 2017 Network Plan lists a new installation date of January 1, 2018,²⁵ the unexplained delay is only one of several monitoring issues the 2017 Network Plan raises for these counties.

The proposed site locations suffer from a vagueness issue similar to the Fayette County site, but here made even worse by the multiple "potential site location" boxes drawn by DEP.²⁶ As was the case with the Fayette County site, the public has no way to make a meaningful comment when DEP's proposed sites are rough estimates that cover multiple square miles.

In addition, the sites grid and the individual site descriptions in Appendix D to the 2017 Network Plan indicate that the Mehoopany and Springville sites will be discontinued.²⁷ One section of the 2017 Network Plan explained that the existing sites are not capable of housing PM_{2.5} monitors so new sites must be established.²⁸ A separate section of the 2017 Network Plan, which also referred to these sites, stated that modifications to the monitoring network in the coming year would include relocations of "VOC sampling from Springville (Susquehanna County) and Mehoopany (Wyoming County) and ... [adding] Carbonyl sampling to each of these sites."²⁹ The use of the word "site" in this phrase is confusing insofar as it adds doubt to

²³ See *2017 Network Plan*, *supra* at 17 (Figure 4) (showing a large concentration of oil and gas facilities in these counties). See also ATSDR report highlighting adverse health effects of airborne oil and gas contamination, available online: https://www.atsdr.cdc.gov/HAC/pha/BrooklynTownship/BrooklynTwnsp_pm2-5_HC_Final_04-22-2016_508.pdf.

²⁴ *2016 Network Plan*, *supra* at 19 (Table 6).

²⁵ *2017 Network Plan*, *supra* at 18 (Table 6).

²⁶ *2017 Network Plan*, *supra* at 30-32 (Wyoming County), at 26-29 (Susquehanna County).

²⁷ *2017 Network Plan*, *supra* at 10-11 (Table 3), D-41 (Mehoopany), D-59 (Springville).

²⁸ *2017 Network Plan*, *supra* at 56.

²⁹ *2017 Network Plan*, *supra* at 16 (Table 5).

the prior declaration that the original monitoring sites are being discontinued; this reads as though the DEP is abandoning VOC monitoring and replacing it with carbonyl monitoring. Finally, a third statement declares that the new Susquehanna County site will monitor PM_{2.5} and the new Wyoming County site will monitor PM_{2.5} and carbonyls; this section did not mention VOC monitoring.³⁰ Taken together, there is no conceivable way for any member of the public to discern what DEP will to monitor in Susquehanna and Wyoming Counties. DEP must comply with 40 C.F.R. § 58.10(b), in particular the sections requiring definitive locations for monitors and a clear list of the parameters that will be monitored at those locations.

C. Clarion and Jefferson Counties

With respect to the proposed monitoring sites in Clarion and Jefferson Counties, the schedule listed for installation in the 2017 Network Plan mirrors the schedule established in the 2016 Network Plan.³¹ While admirable, the current proposal for these sites violates the requirements of 40 C.F.R. § 58.10(b). As was the case with Wyoming and Susquehanna Counties, the public cannot offer meaningful monitoring-site commentary on multiple, vast tracts of land in the vicinity of oil and gas activities.³² DEP must provide additional details regarding these proposed sites.

D. Indiana, McKean, and Lycoming Counties

Without any explanation, DEP moved McKean County's new monitor installation date from the "end of 2017" to "January 1, 2019," Indiana County's new monitor installation date from the "end of 2016" to "January 1, 2019," and Lycoming County's new monitor installation

³⁰ 2017 Network Plan, *supra* at 18 (Table 6).

³¹ 2017 Network Plan, *supra* at 18 (Table 6); 2016 Network Plan, at 19 (Table 6).

³² 2017 Network Plan, *supra* at 19-20 (Clarion County); 2017 Network Plan, at 23-25 (Jefferson County).

date from the “end of 2016” to “July 1, 2018.”³³ What is now a reoccurring theme in this section, DEP should provide an explanation for the delays in implementing these monitors and must comply with 40 C.F.R. § 58.10(b).

E. Washington County

Terminating the Washington, PA monitoring site³⁴ would be counter to DEP’s stated need to obtain ambient air quality data in areas with significant oil and gas activities. Data for the monitored parameters at this site – ozone and PM_{2.5} – appear to meet the criteria for site termination listed in 58 C.F.R. § 58.14(c), but not by an overwhelming degree. In addition, PM_{2.5} and ozone are parameters of concern in oil and gas regions. In southwestern Pennsylvania, Washington County likely has more oil and gas development over the past decade and any other county. DEP should reconsider outright termination of this site in light of the concerns DEP has noted concerning emissions from oil and gas activities. At the very least, DEP should consider relocating these monitors to a new site in Washington County.

F. Butler and Armstrong Counties

The map on page 17 of the 2017 Network Plan shows a distinct density of oil and gas activity across Butler and Armstrong Counties. These two counties have precisely one air quality monitor covering over 1,400 square miles. That site, Kittanning (Armstrong County), monitors PM_{2.5} and ozone. In addition to or in substitution for any of the above-mentioned counties, DEP should consider extending oil and gas monitoring to these counties.

³³ 2017 Network Plan, *supra* at 18 (Table 6); 2016 Network Plan, *supra* at 19 (Table 6).

³⁴ 2017 Network Plan, *supra* at 37-41.

II. Lead Monitoring Sites at Conemaugh (Westmoreland County), Shelocta (Indiana County), and Upper Strasburg (Franklin County)

DEP's 2016 Plan listed the Conemaugh, Shelocta, and Upper Strasburg monitoring sites under "Site Terminations" in the "Summary of Changes to the PA DEP Air Monitoring Network 2016-2017."³⁵ Each site only monitored lead³⁶ and the "Conemaugh ... and Shelocta lead sites [had] maintained emission rates below the 0.5 tpy threshold for the ... [previous] five years."³⁷ Although the rationale for eliminating the Upper Strasburg site was not the same, at that time DEP did "not expect higher rates of lead emissions from" the Letterkenny Army Depot.³⁸ Per 58 C.F.R. § 58.14(c)(1), DEP had adequate support for terminating these sites.

DEP's 2017 Plan noted that it "[d]iscontinued lead monitoring sites at Shelocta (Indiana County) and Upper Strasburg (Franklin County)"³⁹ Neither the Shelocta site nor the Upper Strasburg site appeared in Table C-19, listing DEP's lead monitoring sites.⁴⁰ This would appear to indicate that DEP terminated these two sites. However, both of these sites appeared on the map of statewide sites and on the matrix of sites showing parameters monitored.⁴¹ They are also listed in Appendix D to the 2017 Network Plan, which describes the details of each monitoring site.⁴²

With respect to the Conemaugh site, as noted above, DEP appeared to have had a valid basis for terminating the site. However, like Shelocta and Upper Strasburg, Conemaugh appears

³⁵ 2016 Network Plan, *supra* at 16 (Table 5).

³⁶ 2016 Network Plan, *supra* at 10-11 (Table 3).

³⁷ 2016 Network Plan, *supra* at 33.

³⁸ 2016 Network Plan, *supra* at 33.

³⁹ 2017 Network Plan, *supra* at 12 (Table 4).

⁴⁰ 2017 Network Plan, *supra* at C-22 (Table C-19).

⁴¹ 2017 Network Plan, *supra* at 9-11 (Figure 3, Table 3).

⁴² 2017 Network Plan, *supra* at D-57 (Shelocta) and D-66 (Upper Strasburg).

in the map of sites,⁴³ matrix of sites showing parameters,⁴⁴ and Appendix D.⁴⁵ However, unlike those sites, DEP listed Conemaugh in Table C-19. While it was not listed under site terminations for the past year in the 2017 Network Plan, DEP did not add an explanatory note in the Plan discussing a basis for continuing it (as it did with respect to the Norristown, Montgomery County site).⁴⁶ Given these contradictory indications as to the continued operation of these three sites, DEP must verify and state clearly the status of these sites.

III. Near-road NO₂ Monitoring in the Pittsburgh MSA

The text of 40 CFR §58.10(a)(5)(iii) requires a single near-road NO₂ monitor in any CBSA with a population greater than 1,000,000. To comply with this requirement, the Allegheny County Health Department (“ACHD”) – perhaps under the assumption that it would satisfy this minimum requirement for the entire Pittsburgh MSA – established a near-road NO₂ monitor in Allegheny County in 2014. However, “[f]ull monitoring requirements apply separately to each affected State or local agency in the absence of an agreement between the affected agencies and the EPA Regional Administrator.”⁴⁷ Having been informed by ACHD staff that no such agreement exists,⁴⁸ it follows that ACHD’s portion of the Pittsburgh MSA and the portion of the Pittsburgh MSA under DEP’s control should each meet “full monitoring requirements.”

⁴³ *2017 Network Plan, supra* at 9 (Figure 3).

⁴⁴ *2017 Network Plan, supra* at 10 (Table 3).

⁴⁵ *2017 Network Plan, supra* at D-14.

⁴⁶ *2017 Network Plan, supra* at 12 (“As stated in the 2016 Annual Network Plan, PA DEP planned to close the Norristown (Montgomery County) ozone monitoring site. However, PA DEP has retained this site”).

⁴⁷ 40 C.F.R. Part 58, App. D § 2(e).

⁴⁸ Per informal discussion between GASP Staff Attorney Ned Mulcahy and ACHD Monitoring Chief Mr. Darrel Stern on May 25, 2017, in ACHD offices. Also present was Allegheny County Assistant Solicitor Jeffrey Bailey.

Population figures from the 2010 census indicate that Allegheny County had a population of 1.22 million.⁴⁹ By subtracting Allegheny County's population from the population figure for the entire Pittsburgh MSA, the population of the remaining six counties would be 1.13 million.⁵⁰ By this reasoning, DEP must comply with 40 CFR §58.10(a)(5)(iii) and provide a second near-road NO₂ monitor in the Pittsburgh MSA.

In the alternative, ACHD, DEP, and the Region III Administrator should memorialize and make public an agreement covering any and all joint monitoring efforts. The lack of such an agreement is especially troubling given that DEP may be required to comply with monitor siting requirements under Appendix D § 4.3.2(a)(1). Meeting those requirements might require DEP to locate a monitor within or adjacent to the Allegheny County line. In keeping with the requirements set forth in Appendix D § 2(e), ACHD and DEP must work collaboratively to ensure an effective network design.

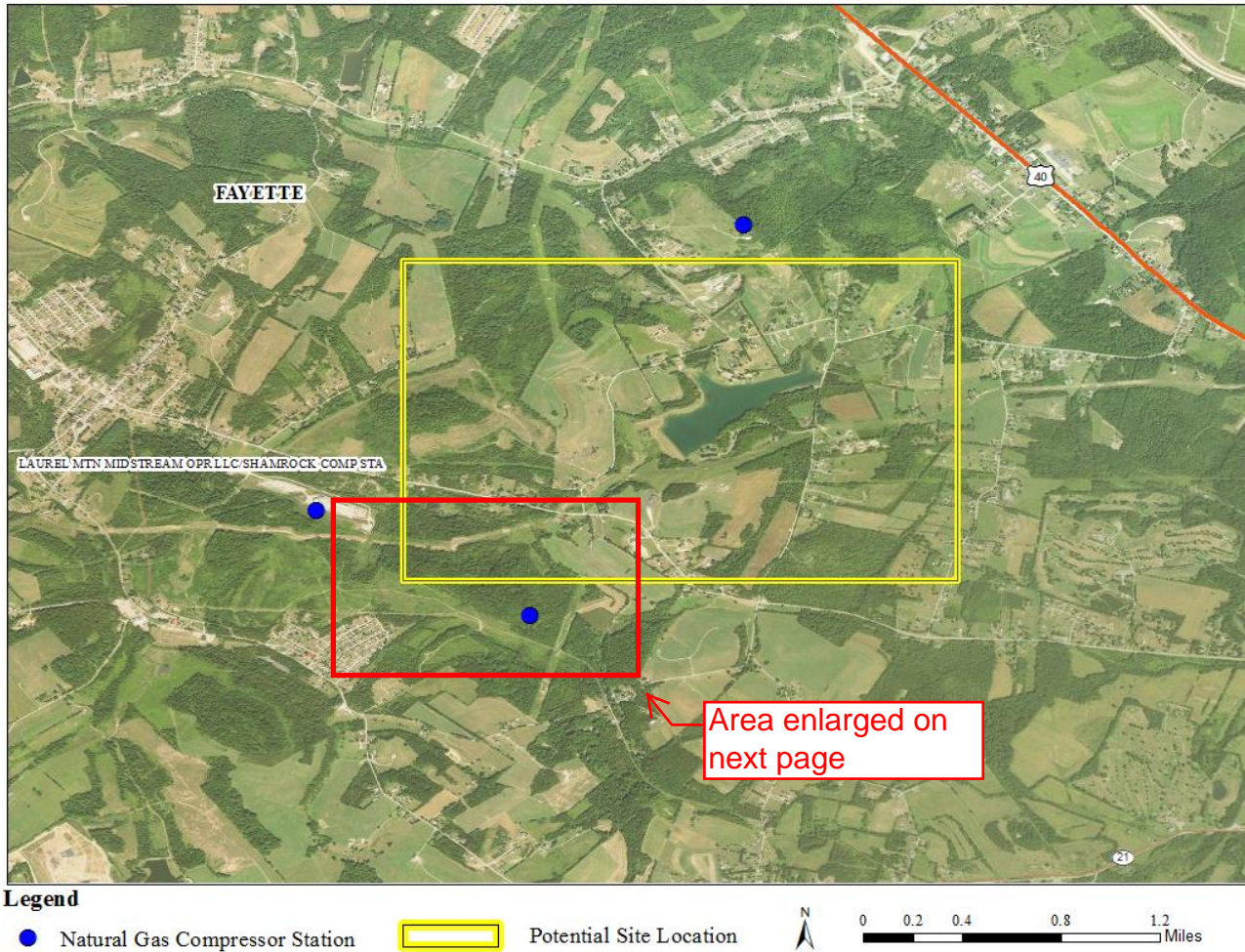
⁴⁹ All census data herein available online: <https://www.census.gov/data/tables/2016/demo/popest/total-metro-and-micro-statistical-areas.html>.

⁵⁰ The actual figure obtained by adding the population of all six named counties is 1,132,937.

Exhibit A

Figure 8 displays a zoomed-in satellite view of indicated compressor station region, along with an indication of potential site locations.

Figure 8. Natural Gas Compressor Stations and Potential Site Locations in Fayette County





The potential site location region in Figure 8 is the area downwind of the Shamrock compressor station owned by Laurel Mountain Midstream LLC, located in German Township. This facility reported 2015 PM_{2.5} emissions of 5.24 tpy. This facility reported the highest PM_{2.5} emissions from natural gas compressor stations located in Fayette County. In addition, the number and size of engines used at these three facilities are among the largest in the county. PA DEP requests public input to assist in siting the planned monitoring station in Fayette County.

emphasis added



Legend

-  Proposed Fayette County Monitor Area
-  Shamrock CS

Google Earth

© 2017 Google

Cottage St

New Salem Rd

Shamrock CS

Area "compressor station" indicated on previous page



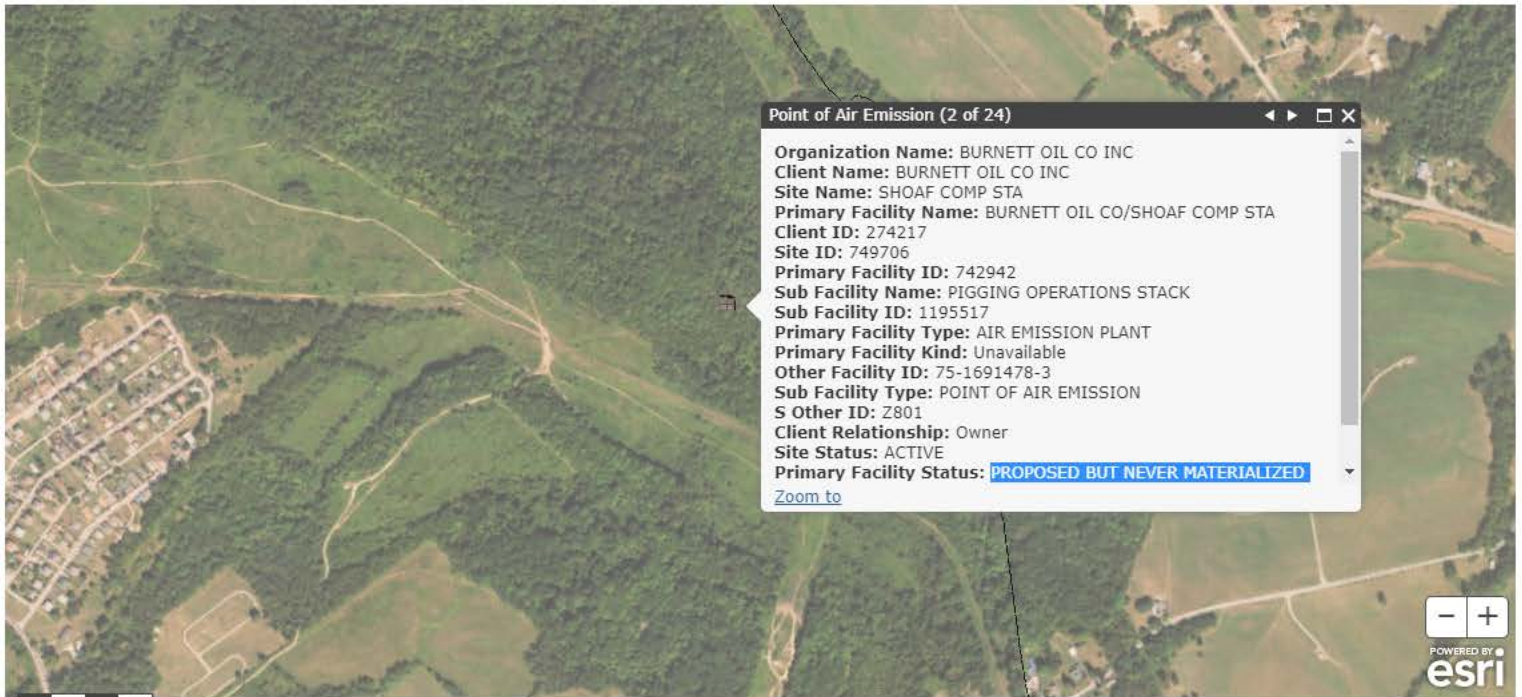
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- Buffer Sensitive Layer (Dat
- Extract Data
- Locate
- Measurement
- ▼ Print
- Print

Map eFacts Query Advanced Query

ESRI Streets & Imagery Topographic National Geographic
Streets Imagery



Point of Air Emission (2 of 24)

Organization Name: BURNETT OIL CO INC
Client Name: BURNETT OIL CO INC
Site Name: SHOAF COMP STA
Primary Facility Name: BURNETT OIL CO/SHOAF COMP STA
Client ID: 274217
Site ID: 749706
Primary Facility ID: 742942
Sub Facility Name: PIGGING OPERATIONS STACK
Sub Facility ID: 1195517
Primary Facility Type: AIR EMISSION PLANT
Primary Facility Kind: Unavailable
Other Facility ID: 75-1691478-3
Sub Facility Type: POINT OF AIR EMISSION
S Other ID: Z801
Client Relationship: Owner
Site Status: ACTIVE
Primary Facility Status: **PROPOSED BUT NEVER MATERIALIZED**

[Zoom to](#)

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Facility Search Details

Facility ID:	742942
Facility Name:	BURNETT OIL CO/SHOAF COMP STA
Address:	NEW SALEM & KRULOCK RD NEW SALEM, PA 15468 German Township, Fayette County
Status:	Proposed But Never Materialized
Program:	Air Quality

Facility Search Sub-Facility Details

Sub Facility Name	Type:	Other ID:	Status:	eMap PA Location:
25 MMSCFD DEHYDRATOR WITH 0.75 MMBTU/HR REBOILER 1	Process	401	Active	View Map in eMapPa
25 MMSCFD DEHYDRATOR WITH 0.75 MMBTU/HR REBOILER 2	Process	202	Active	View Map in eMapPa
ADMIN SF FOR:BURNETT OIL CO/SHOAF COMP STA	General Administrative Location	ADMIN	Active	
CATERPILLAR G3516B NATURAL GAS ENGINE 1	Process	101	Active	View Map in eMapPa
CATERPILLAR G3516B NATURAL GAS ENGINE 2	Process	102	Active	View Map in eMapPa
CATERPILLAR G3516B NATURAL GAS ENGINE 3	Process	103	Active	View Map in eMapPa
CATERPILLAR G3516B NATURAL GAS ENGINE 4	Process	104	Active	View Map in eMapPa
CATERPILLAR G3516B NATURAL GAS ENGINE 5	Process	105	Active	View Map in eMapPa
CATERPILLAR G3516B NATURAL GAS ENGINE 6	Process	106	Active	View Map in eMapPa

1 of 3 (23 records, 9 per page)

Facility Search Permit Details

Authorization	Status:	Permit Number:	Date Received:
AQ General Permit (884343)	Issued	75-1691478-3	06/20/2011

Facility Search Inspection Details

Inspection Type	Inspection Date	Result
Administrative/File Review (2497635)	07/01/2016	No Violations Noted
Administrative/File Review (2597941)	05/26/2017	No Violations Noted

Facility Search Tank Remediation

No records matched the criteria.

Corrective Action/Tank Closure requirements remain outstanding for incidents in Inactive status.

Facility Search Land Recycling Information

No records matched the criteria.

Facility Search Air Emissions

No records matched the criteria.
