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VIA EMAIL AND FIRST CLASS MAIL

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May 26, 2011

Dear Mr. Trivedi,

I am writing on behalf of the Group Against Smog and Pollution (GASP), Stewards of the Lower Susquehanna, and Lower Susquehanna Riverkeeper regarding the Department of Environmental Protection's *Notice to Rescind and Remove from the Official List of Department Technical Guidance Documents and Policies Interim Guidance for Performing Single Stationary Source Determinations for the Oil and Gas Industries*, (DEP ID: 270-0810-006) and *Notice of Intent to Reopen Public Comment Period on Air Quality Permit Exemptions* (DEP ID: 275-2101-003).

Thank you for taking the time to consider our comments. If you have any questions please feel free to contact me.

Sincerely

A handwritten signature in black ink, appearing to read 'Joe Osborne', is written over a white background.

Joe Osborne
Legal Director
Group Against
Smog & Pollution

Guy Alsentzer
Director
Stewards of the Lower
Susquehanna

Michael Helfrich
Lower Susquehanna
Riverkeeper

COMMENTS REGARDING PROPOSED GUIDANCE FOR PERFORMING SINGLE STATIONARY SOURCE DETERMINATIONS FOR THE OIL AND GAS INDUSTRIES

The Energy Information Administration projects that by 2035, shale gas production will increase fourfold from 2009 levels.¹ Much of that increase will occur in the large and relatively untapped Marcellus Shale formation. While natural gas produces far less air pollution than coal when combusted, the compressor stations, condensate tanks, dehydrators and flares necessary to extract, process, and transmit natural gas emit significant quantities of nitrogen oxides (NOx) and volatile organic compounds (VOCs), among other pollutants.

When any one of these emissions units is considered in isolation, its emissions may seem relatively small. In fact, these sources are often permitted as minor sources or are entirely exempted from permit requirements as “sources of minor significance.”² However, when all of these emission units are considered together, the combined NOx and VOC emissions from the oil and gas production sector are enormous. For instance:

- A 2009 Southern Methodist University study found emissions of NOx and VOCs from the oil and gas sector in the Dallas-Fort Worth area likely exceed emissions from motor vehicles.³
- A 2008 analysis by the Colorado Department of Public Health and Environment concluded that NOx and VOC emissions from Colorado's oil and gas operations exceed vehicle emissions for the entire state.⁴
- In 2009, for the first time in the state's history, Wyoming failed to meet the National Ambient Air Quality Standard (NAAQS) for ozone. The Wyoming Department of Environmental Quality determined emissions from the state's growing oil and gas sector were to blame.⁵

If air emissions from Marcellus activity are not subjected to more rigorous control, Pennsylvania will experience NOx and VOC emissions increases of a similar magnitude, and the human health consequences will be significant. NOx and VOCs are

¹ Presentation by Richard G. Newell, Administrator, Energy Information Administration, *The Long-term Outlook for Natural Gas* (Feb. 2, 2011), available at:

http://www.eia.doe.gov/neic/speeches/newell_aeo_ng.pdf.

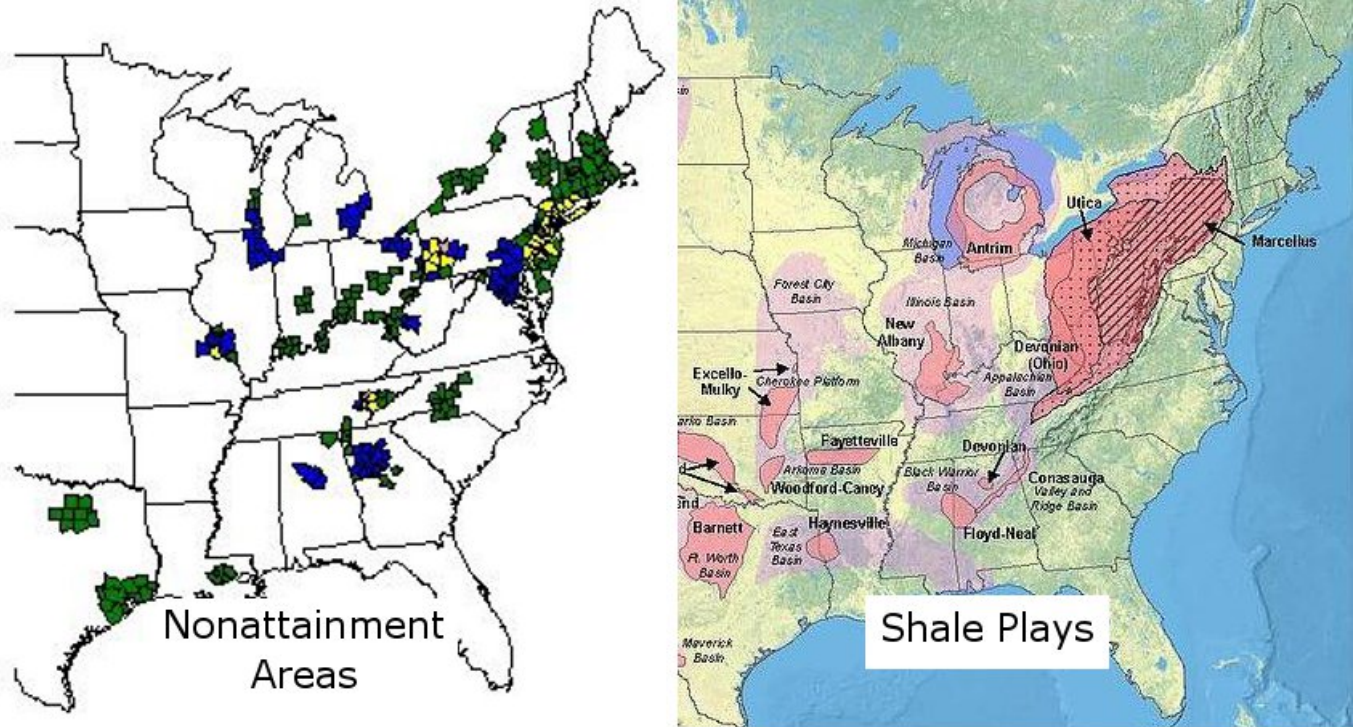
² PADEP, Air Quality Permit Exemption List, Category 38, pp. 6-7 (DEP ID#: 275-2101-003) (Jul. 26, 2003) available at: <http://www.elibrary.dep.state.pa.us/dsweb/Get/Document-80104/275-2101-003.pdf>.

³ Al Armendariz, Emissions from Natural Gas Production in the Barnett Shale Area and Opportunities for Cost-Effective Improvements (Jan. 26, 2009), available at: http://www.edf.org/documents/9235_Barnett_Shale_Report.pdf.

⁴ Attachment 1 - Colorado Dept. of Public Health & Environment, Air Pollution Control Division, Oil and Gas Emission Sources Presentation for the Air Quality Control Commission Retreat (May 15, 2008) at pages 3-4.

⁵ WYDEQ, Technical Support Document I for Recommended 8-Hour Ozone Designation For the Upper Green River Basin, WY, p. viii (Mar. 26, 2009), available at: http://deq.state.wy.us/out/downloads/Ozone%20TSD_final_rev%203-30-09_jl.pdf.

ozone and particulate matter precursors, and much of Pennsylvania and downwind states already struggle to meet federal health-based standards for ozone and PM_{2.5}. The geographic boundaries of the Marcellus Shale formation overlap with, or are just upwind of, a number of existing ozone and PM_{2.5} nonattainment areas. Given the nature of the pollutants at issue and the geographic area where the emission units must be located, Marcellus Shale activity is ideally suited to make our existing air pollution problems worse. Thus it is crucial that DEP act without delay to develop and implement policies to control air emissions from Marcellus Shale production activity.



I. Guidance for performing single stationary source determinations for the oil and gas industries

A. Introduction

Before an air permitting authority can determine whether an air pollution source is capable of generating sufficient pollution to exceed a major source emissions threshold, the permitting authority must first determine what emission units to include in the calculation. For PSD, NNSR and Title V permitting purposes, EPA defines a stationary source as “any building, structure, facility, or installation which emits or may emit a

regulated NSR [new source review] pollutant.”⁶ EPA defines a “building, structure, facility, or installation” as:

all of the pollutant-emitting activities which belong to the same industrial grouping, are located on one or more contiguous or adjacent properties, and are under the control of the same person (or persons under common control) Pollutant-emitting activities shall be considered as part of the same industrial grouping if they belong to the same “Major Group” (i.e., which have the same first two digit code).⁷

For typical pollution sources, it is relatively straightforward to apply this definition and identify the relevant emission units to include in a major source emissions threshold calculation; however, given the complexity of oil and gas operations and the wide spatial distribution of associated emission units, source determinations for oil and gas facilities often present unique and vexing challenges. Prompted by these challenges, in September 2009, EPA Assistant Administrator Gina McCarthy issued a memo clarifying the method for making source determinations for oil and gas operations.⁸ While the McCarthy Memo acknowledged the complexity of source determinations for the oil and gas industry, it reaffirmed that state and local air permitting authorities must consider the three factors from EPA’s “building, structure, facility, or installation” definition. In addition, the McCarthy Memo directed state and local air permitting authorities to consider the explanations in the preamble to the 1980 revisions to the PSD/NNSR rules⁹ and past determinations made by EPA Regional Offices¹⁰ when making oil and gas determinations.

DEP’s rescinded *Guidance for Performing Single Stationary Source Determinations for the Oil and Gas Industries* is an accurate and concise summary of the source determination requirements and considerations contained in the numerous documents the McCarthy Memo directs permitting authorities to rely on. Thus the rescinded guidance is a potentially useful tool for DEP staff to use to expedite the source determination process and ensure source determination analyses are performed properly. Further, the rescinded guidance places no new obligations or responsibilities on the Department. In order for DEP to retain its authority to oversee PSD, NNSR and Title V permitting in Pennsylvania, DEP’s major source permitting actions must be consistent with or more stringent than the requirements of the federal PSD, NNSR, and Title V permitting programs.¹¹

While the rescinded guidance document is valuable, it does little to address the numerous problems associated with oil and gas source determinations. The following

⁶ 40 C.F.R. § 52.21(b)(5).

⁷ 40 C.F.R. § 52.21(b)(6).

⁸ Memo from U.S. EPA Assistant Administrator Gina McCarthy to Regional Administrators, *Withdrawal of Source Determination for Oil and Gas Industries* (September 22, 2009), available at: <http://www.epa.gov/region7/air/nsr/nsrmemos/oilgaswithdrawal.pdf>.

⁹ 45 Fed. Reg. 52676, 52694–95 (Aug. 7, 1980).

¹⁰ Available at: <http://www.epa.gov/region7/air/policy/search.htm>.

¹¹ 42 U.S.C. §§ 7416, 7661a(d) & (i); 40 C.F.R. §§ 51.165(a)(1), 51.166(a)(7)(iv), 70.1(c).

sections of this document describe these problems and propose a revised Pennsylvania source determination policy that would largely address them. In the event DEP chooses not to implement a source determination policy similar to that proposed below we urge the Department to reinstate the rescinded guidance document.

B. Challenges and limitations of applying traditional source determination policies to the oil and gas industries

Traditional source determination policy is poorly suited to the oil and gas industry. As a result, oil and gas source determination analyses are prone to error, require excessive DEP staff time; and fail to adequately regulate air emissions from this industry.

1. *The common control inquiry is complicated by the numerous, nominally distinct business entities associated with interconnected oil and gas operations*

Unlike typical air pollution sources, the individual emission units that collectively make up an oil or gas operation are frequently owned by multiple business entities. For instance, an oil or gas production field may contain wells operated by different companies; or the wells, gathering lines, compressor stations, and processing plant may each be owned by a different business entity. The presence of such varied ownership interests does not rule out the possibility common control exists, but it does make the common control analysis much more complex and labor intensive to perform.

While EPA does not have a specific test for determining if common control exists, it adopts the SEC's definition of control: "the possession, direct or indirect, of the power to direct or cause the direction of the management and policies of a person, whether through ownership of voting shares, by contract, or otherwise."¹² "[C]ommon control can be established through ownership of multiple sources by the same parent corporation or by a parent and a subsidiary of the parent corporation."¹³ "[A]n ownership interest as low as 10 percent may result in control, while ownership of 50 percent necessarily results in control."¹⁴ If such a common ownership interest did not exist, a contract-for-service

¹² 17 C.F.R. § 210.1-02(g), 45 Fed. Reg. 59874, 59,878 (Sept. 11, 1980).

¹³ EPA Region 8, Single Source Determination for Coors/TriGen (Nov. 12, 1998) *available at* <http://www.epa.gov/region7/air/title5/t5memos/coorstri.pdf>.

¹⁴ EPA Region 8, Single Source Determination for KN Power/Front Range Energy Associates, pp. 4-5 (Oct. 1, 1999) (quoting 44 Fed. Reg. 3279 (January 16, 1979)) *available at*: <http://www.epa.gov/region07/air/nst/nstrmemos/frontran.pdf>; *See also*. EPA Region 2, Common Control Question - Dupont and Dupont Dow Elastomers (Nov. 25, 1997) *available at*: <http://www.epa.gov/region7/air/title5/t5memos/2-jntven.pdf>, (finding common control despite only 50% ownership); EPA Region 4, Common Control - United Technologies Corporation; (July 20, 1995),

relationship or support-dependency relationship between one natural gas emission unit and another may be sufficient to establish common control.¹⁵

Thus while different portions of a natural gas operation may be under the nominal oversight of different business entities, these operations may, and often are, still under common control. However, discovering such common control relationships is no simple task. The permit reviewer must gather information related to the other natural gas operations occurring in an area. DEP's Bureau of Air Quality has little reason to be familiar with oil and gas wells because emission units located at well pads are almost entirely exempt from air permitting requirements.¹⁶ The permit reviewer also must determine whether the operations are part of the same corporate structure or whether private contracts between the operators establish common control. The compliance review form included in the plan approval application is intended to collect this information, but the form does require disclosure of all information relevant to determining whether common control exists, such as contractual agreements, joint ventures, or functional dependency of one emission unit on another. Further, DEP and the public's ability to independently gather or verify this information is limited. This information can sometimes be pieced together from company reports and SEC filings, but often the relevant information is not publically available, such as when natural gas operation is partly owned by a private investment firm, which has no obligation to publically disclose its financial holdings.¹⁷

For example, the draft plan approval technical review document for a natural gas compressor station in DEP's Southwest Region stated that the permittee "and its parent company do not have an ownership stake in any of the production wells that supply natural gas" to the compressor station.¹⁸ However, Commenter identified over 70 nearby permitted wells operated by an entity that, through a complex tangle of subsidiaries and joint ventures possessed a 49% ownership interest in the compressor station permittee.¹⁹ While this ownership interest is strong enough to establish common control, the connection between the two entities is easy to miss given the complex arrangement of business entities commonly found in the oil and gas industry.

Commenter appreciates that it may be impractical for the Department to regularly engage in such detailed, time-consuming common control analyses; however, DEP

available at: <http://www.epa.gov/region7/air/title5/t5memos/site.pdf>, (finding common control despite only 50% ownership).

¹⁵ EPA Region 3, Single Source Determination – Northeast Hub Partners (Jun. 10, 1992) *available at:* <http://www.epa.gov/region07/air/nsr/nsrmemos/nehubltr.pdf> (finding emission units owned by Northeast Hub Partners and United Salt must be treated as a single source); EPA Region 8, Single Source Determination - Coors/Trigen (Nov 12, 1998) *available at:*

<http://www.epa.gov/region07/air/nsr/nsrmemos/coorstri.pdf> (finding emission units owned by Coors and Trigen must be treated as a single source).

¹⁶ PADEP, Air Quality Permit Exemptions List, p. 6, Category 38 (Jul. 26, 2003) *available at:* <http://www.elibrary.dep.state.pa.us/dsweb/Get/Document-80104/275-2101-003.pdf>.

¹⁷ See Attachment 2 – GASP Comments Regarding Welling Compressor Station at 3 (Jan. 31 2011).

¹⁸ PADEP, Review of Plan Approval Application Shamrock Compressor Station at 7 (Nov. 12, 2010, Revised Nov. 23, 2010).

¹⁹ See Attachment 3 - GASP Comments Regarding Shamrock Compressor Station, pp. 2-4 (Dec. 13, 2010).

cannot simply ignore these potential sources of common control and remain consistent with federal major source permitting requirements. To reduce its burden when evaluating the common control factor of oil and gas source determinations, the Department should routinely require applicants for oil and gas facility air permits to provide additional information related to common control beyond that requested in the standard compliance review form, including any contractual agreements, joint ventures, or functional dependencies between one unit and another that might establish common control.

2. *The contiguous or adjacent inquiry is complicated by the distance between emission units*

In the oil and gas industries, the emission units that make up a single industrial process are often separated by greater distances than is typical of most other stationary air pollution sources. For instance, wells in an oil or gas field might be located 4 or more miles from the compressor station they feed. The fact that one oil and gas emission unit might be separated from another by several miles and intervening surface owners does not rule out the possibility that the emission units are contiguous or adjacent. It is well established that Congress and EPA consider it necessary and appropriate to treat physically separated emission units, including those found in the oil and gas industries as single sources for major source determination purposes.²⁰ Like the effect of multiple ownership interests on common control, physical distance between emission units complicates the contiguous and adjacent inquiry significantly. When a contiguous or adjacent analysis is performed on emission units that are not located on the same property or properties that share a common boundary, the analysis ceases to be a predictable, bright line test²¹ and instead becomes a complex, case-by-case, multi-factor analysis.

In a 1998 memo to the Utah Division of Air Quality, EPA Region 8 notes that, in addition to proximity, “a determination of ‘adjacent’ should include an evaluation of whether the distance between two facilities is sufficiently small that it enables them to operate as a single ‘source.’”²² Region 8 went on to suggest several questions to help make this evaluation, any affirmative answers suggest adjacency and “[n]ot all the answers to these questions need be positive for two facilities to be considered adjacent.”²³

²⁰ For a more detailed discussion of the legal basis for oil and gas production field single source determinations see attachment 4.

²¹ “EPA policy does not include a bright line or numerical standard for determining how far apart activities may be and still be considered ‘contiguous’ or ‘adjacent.’ As explained in the preamble to the August 7, 1980 PSD rules, these decisions are made on a case-by-case basis.” EPA Region 5, Single Source Determination – Environmental Wood Supply at 3 (Mar. 23, 2010), *available at*: <http://epa.gov/region07/air/nsr/nsrmemos/single.pdf>.

²² EPA Region 8, Response to Request for Guidance in Defining Adjacent at 2 (May 21, 1998) *available at*: <http://epa.gov/region07/air/nsr/nsrmemos/util-trl.pdf>.

²³ *Id.*; To further complicate matters, EPA regional offices have also suggested these same questions be used to determine whether the common control factor is satisfied, *see e.g.* EPA Region 7, letter from William Spratlin to Peter Hamlin, Iowa Department of Natural Resources (Sep. 18, 1995) *available at*: <http://www.epa.gov/region7/air/nsr/nsrmemos/control.pdf>.

The questions to be considered are:

- Was the location of the new facility chosen primarily because of its proximity to the existing facility, to enable the operation of the two facilities to be integrated? . . .
- Will materials be routinely transferred between the facilities? Supporting evidence for this could include a physical link or transportation link between the facilities, such as a pipeline, railway, special-purpose or public road, channel or conduit.
- Will managers or other workers frequently shuttle back and forth to be involved actively in both facilities? . . .
- Will the production process itself be split in any way between the facilities, i.e., will one facility produce an intermediate product that requires further processing at the other facility, with associated air pollutant emissions? . . .²⁴

Further, the contiguous or adjacent factor can often be satisfied by functional interdependence of the emission units at issue.²⁵ For instance, in October 2010 EPA Region 5 determined a Summit Petroleum gas sweetening plant and its connected production wells should be considered a single source. The contiguous or adjacent factor was satisfied due to the functional interdependency of the emission units:

Summit has not presented any evidence to show that the ‘far flung well sites’ from the three fields do not provide product to the sweetening plant or that they do or can provide product to any other processing plants. . . . In fact, the information provided by Summit shows that the sour gas wells are truly interdependent on the sweetening plant—the wells provide all their sour gas to the sweetening plant, the sour gas cannot flow anywhere else, and Summit owns and operates the sweetening plant and well sites.²⁶

Given the wide spatial distribution of oil and gas emission units that must be subjected to source determinations, permitting authorities must engage in a time- and labor-intensive analysis of factors like those mentioned above to determine if the emission units at issue are contiguous or adjacent. Not only are these analyses time consuming, they often deprive regulated parties and interested members of the public of certainty and predictability and encourage the perception agency decisions are made arbitrarily.

²⁴ *Id.*

²⁵ *See, e.g.* EPA Region 5, letter from Cheryl Newton to Donald Sutton, Illinois Environmental Protection Agency (Mar. 13, 1998), *available at* <http://www.epa.gov/region07/air/nsr/nsrmemos/acme.pdf>, (“USEPA considers that the close proximity of the sites, along with the interdependency of the operations and their historical operation as one source, as sufficient reasons to group these two facilities as one.”)

²⁶ EPA Region 5, Source Determination – Summit Petroleum at 6 (Oct. 18, 2010), *available at*: <http://epa.gov/region07/air/title5/t5memos/singler5.pdf>.

3. *Oil and gas operations change frequently, with each change potentially requiring a new source determination analysis*

Compared to typical stationary air pollution sources, oil and gas operations tend to change more frequently than air pollution sources in other industries. These changes may alter which emission units must be included in a properly defined PSD, NNSR, or Title V “source” (potentially requiring the permitting authority to conduct a new source determination analysis) or whether the combined emission units exceed a major source permit threshold.

Oil and gas operations are not well-suited to estimates of routine or steady-state emissions calculations: Wells are shut in, new wells are created, NO_x and VOC emissions increase significantly when wells are vented or flared during well completions,²⁷ and emissions from any particular well and its associated emission units decline in proportion to the declining volume of natural gas a well produces from year to year. The decline in production is particularly drastic in the first few years of a well’s gas production. One recent estimate of the production decline from a typical Marcellus Shale horizontal well suggests a year one production volume of 400-500 MMCF, dropping to <200 MMCF by year three, and <100 MMCF by year ten.²⁸ These factors make it difficult to accurately estimate the potential to emit of many oil and gas emission units, and thus whether the source exceeds a major source emissions threshold.

As an oil or gas field expands and shrinks over time, wells, pipelines, and compressor stations come and go; as they do, functional interdependencies are created and destroyed. As discussed above, functional interdependencies can affect both the “common control” and “contiguous or adjacent” elements of a source determination. Thus every time a change occurs that may affect a functional interdependency in an oil or gas operation, a permitting authority must perform a new source determination for all affected emission units.

4. *Traditional source determination policy routinely allows oil and gas operations that produce emissions in excess of major source thresholds to avoid major source permitting requirements*

Even if a permitting authority performs thorough source determination analyses for oil and gas operations and regularly reconsiders its conclusions when functional changes occur, in many cases traditional source determination policy does not require oil and gas emission units to be aggregated, even when the operations that are capable of emitting pollution in quantities far in excess of major

²⁷ James Russel *et al.*, *An Emission Inventory of Nonpoint Oil and Gas Emissions Sources in the Western Region*, p. 9 (May 2006), available at: <http://www.epa.gov/ttn/chief/conference/ei15/session12/russell.pdf>

²⁸ Timothy Considine, *The Economic Impacts of the Marcellus Shale*, p. 6 (Jul. 14, 2010), available at: <http://www.api.org/policy/exploration/hydraulicfracturing/upload/API%20Economic%20Impacts%20Marcellus%20Shale.pdf>

source thresholds. For instance, assume a Pennsylvania natural gas operation consists of a number of wells owned by company A that can feed into a compressor station owned by company B or a compressor station owned by company C. Company A's well pad emission units have a potential to emit (PTE) 15 tons per year (TPY) of VOCs. Company B's compressor station has a PTE of 45 TPY of VOCs, Company C's compressor station has a PTE of 40 TPY of VOCs.

The entire operation has a PTE of 100 TPY of VOCs, double the major source emissions threshold; however, according to standard source determination policy, these sources would not be aggregated because there is no common control (the wells and each compressor station are controlled by different entities) and no functional interdependency (the wells may feed into either compressor station). Instead, company A's wells are exempted from any permitting requirements under category 38 of the air quality permit exemptions list, and the compressor stations are permitted as minor sources.

Such an outcome may be permissible based on the three part source determination test, but it will be disastrous for Pennsylvania and downwind areas that already struggle to meet the ozone and PM_{2.5} NAAQS. While traditional source determination policy might treat emissions from sources controlled by different entities or from processes that are not exclusively dependent on one another separately, the absence or presence of common control and functional interdependency have no bearing on NOx and VOCs potential to form ground-level ozone or threaten public health.

To get a sense of the magnitude of the problem, the table below²⁹ lists the PTE for the nine MarkWest compressor stations that supply the Houston gas processing plant. Each of these nine facilities is permitted as a minor source, but taken together they have the potential to emit more NOx than many major sources. For instance, in 2009 the Colver Power Project, a 118 megawatt coal-fired power

MarkWest Natural Gas Compressor Stations capable of supplying Houston Gas Plant – Max Allowable Emissions

Case File	Compressor Station Name	Township	Authorized Engines	Distance to Houston Gas Plant (Miles)	Permitted Emissions Facility Total (TPY)		
					NO _x	CO	VOC
63-933	Johnston	Chartiers	5 NG Engs, 1 Em. Diesel Eng	1.5	97.66	26.05	17.31
63-940	Shaw	Chartiers	5 NG Engs, 1 Em. Diesel Eng	2.2	97.74	26.32	29.76
63-945	Brigich	Chartiers	5 NG Engs, 1 Em. Diesel Eng	2.4	92.70	15.70	14.16
63-937	Fulton	Mt. Pleasant	5 NG Engs, 1 Em. Diesel Eng	2.9	97.74	26.32	29.76
63-934	Godwin	Canton	5 NG Engs, 1 Em. Diesel Eng	3.0	97.74	26.22	29.76
63-939	Nancy Stewart	Mt. Pleasant	5 NG Engs	5.2	92.38	15.61	15.18
63-947	Lowry	Hopewell	5 NG Engs, 1 Em. Diesel Eng	5.9	97.74	26.16	17.38
63-938	Hoskins	Blaine	5 NG Engs, 1 Em. Diesel Eng	10.0	97.74	26.36	17.40
63-942	Dryer	Independence	3 NG Engs, 1 Diesel Eng	11.6	50.99	12.43	11.88
TOTALS			43 SI NG Engines, 7 Em. & 1 Pri. Diesel Engines		822.43	201.17	182.61

²⁹ From PADEP, Review of Plan Approval Application Houston Gas Processing Plant at 8 (Feb. 4, 2011).

plant permitted as a major source emitted 728 tons of NO_x.³⁰

5. *Oil and gas operations can easily be structured to circumvent major source determinations*

As discussed in section I.B.3, above, as an oil or gas field develops, a new pipeline or compressor station may eliminate an existing functional interdependency. This may happen for entirely innocent reasons, such as to increase the reliability or flexibility of an oil or gas gathering operation; however, such a project may also be undertaken with the aim of circumventing major source permitting requirements. In most instances, even if a project were pursued primarily for the purpose of eliminating interdependency and escaping major source status, the project would still provide additional reliability and flexibility. As a result, it may be convenient and economical for an oil or gas operator to pursue a project for the purpose of avoiding major source status, and it is difficult, if not impossible, for a permitting authority to distinguish an innocent project from one designed specifically to circumvent major source permitting requirements.

C. *Proposed solution: presumptive aggregation at the regional office level*

To summarize the discussion from Section I.B, the existing source determination policy as applied to oil and gas operations:

- is difficult and time consuming to perform,
- is prone to error,
- leads to unpredictable outcomes,
- allows an industrial sector that has the capacity to generate massive amounts of pollution to operate its emission units under minor source permits or as unpermitted “sources of minor significance,” and
- allows oil and gas companies to readily avoid major source status by coincidence or by design.

This criticism is not intended to suggest DEP should stop performing source determination analyses for the oil and gas industry. Source determinations may be an imperfect tool for regulating this industry, but abandoning the policy entirely would only exacerbate the problem. Further, DEP must continue to perform these analyses as a condition of its federally approved major source permitting programs.

³⁰ PADEP, eFacts Facility Search, *available at*:
http://www.ahs2.dep.state.pa.us/eFACTSWeb/searchResults_singleFacility.aspx?FacilityID=280848.

While DEP cannot disregard its responsibility to perform source determinations, the Department is free to adopt an oil and gas source determination policy that exceeds federal requirements.³¹ EPA recently contended with the challenge of regulating oil or gas production systems in its greenhouse gas reporting rules.³² In order to efficiently regulate the many small, geographically separated well pad emission units in oil or gas production fields, EPA adopted a “basin-wide” definition of facility:

Facility . . . means all petroleum or natural gas equipment on a well pad or associated with a well pad . . . are under common ownership or common control including leased, rented, or contracted activities by an onshore petroleum and natural gas production owner or operator and that are located in a single hydrocarbon basin Where a person or entity owns or operates more than one well in a basin, then all onshore petroleum and natural gas production equipment associated with all wells that the person or entity owns or operates in the basin would be considered one facility.³³

Basin means geologic provinces as defined by the American Association of Petroleum Geologists (AAPG)³⁴

Almost all of Pennsylvania is contained in AAPG’s geologic province 160A, the Appalachian Basin (Eastern Overthrust area).³⁵ Commenters do not suggest DEP take the drastic step of employing a basin-wide definition for the purpose of making source determinations. Aggregation over such a large area may place undue burden on industry and would often result in entirely unrelated emission units being treated as a single unwieldy “source.” However, presumptive aggregation within a smaller geographic boundary would:

- result in source determinations that better coincide with the common sense notion of plant;
- replace the vague, unpredictable multi-factor contiguous and adjacent analysis with a predictable, bright line test based on clear, readily determined geographic boundaries;
- ease the administrative burden of conducting source determination analyses; and
- ensure that large emissions sources are subjected to major source permitting requirements.

³¹ 42 U.S.C. §§ 7416, 7661a(d) & (i); 40 C.F.R. §§ 51.165(a)(1), 51.166(a)(7)(iv), 70.1(c).

³² 75 Fed. Reg. 74458 (Nov. 30, 2010).

³³ 40 C.F.R. § 98.238

³⁴ *Id.*

³⁵ Richard F. Meyer *et al.*, *AAPG–CSD Geologic Provinces Code Map*: AAPG Bulletin, Volume 75, Number 10, p. 1651 (October 1991).

Commenters suggest presumptive aggregation apply to all oil and gas compressor stations and well pad emission units that are under common control and located in an area served by the same Department regional office (as defined in 25 Pa. Code § 1.3). Establishing presumptive aggregation at the regional office level offers administrative convenience, but county- or field-level³⁶ aggregation are two other obvious options to consider. While no predetermined geographic boundary will perfectly coincide with the actual boundaries of an oil or gas production operation, such operations often extend beyond county boundaries or draw from multiple overlapping fields.³⁷ Thus either option would be more likely to result in source determinations that do not correlate with the actual boundaries of a distinct oil or gas production operation and that are less stringent than federal law requires.

To be clear, Commenter's presumptive aggregation proposal would not eliminate the requirement that the PTE of the combined emission units exceed a major source permit threshold in order to be regulated as a combined major source. Larger operations are, by definition, responsible for more air pollution, meaning greater benefits would be derived from subjecting these sources to more stringent controls. Larger sources are also better equipped to bear the increased costs associated with meeting major source permit requirements. Major source permit requirements would continue to apply only to relatively large oil or gas operations and would not create an administratively unmanageable increase in the number of permits the Department must issue. In fact, because this presumptive aggregation policy would streamline the source determination analysis and replace the numerous permits large oil and gas operations now receive with a single major source preconstruction permit and Title V operating permit per DEP region, the Department may ultimately save time by implementing this proposal.

³⁶ Field boundaries can be defined with some consistency and precision by relying on a source such as the Energy Information Administration Oil and Gas Field Code Master List, *available at*: http://www.eia.doe.gov/oil_gas/natural_gas/data_publications/field_code_master_list/fcml.html.

³⁷ See e.g. Energy Information Administration, Barrel-of-Oil Equivalent Oil and Gas Field Map - Southern Ohio, Southwestern Pennsylvania, and Northwestern West Virginia, *available at*: http://eia.doe.gov/pub/oil_gas/natural_gas/analysis_publications/maps/Appalach4_southOH_BOE.pdf.

COMMENTS REGARDING AIR QUALITY PERMIT EXEMPTIONS

On June 25, 2010, GASP submitted comments in response to the Department's May 29, 2010 Pennsylvania Bulletin notice regarding the Air Quality Permit Exemptions List (DEP ID#: 275-2101-003). GASP incorporates its June 25, 2010 comments by reference and offers the following additional comments.

Given the rapid pace at which Marcellus Shale activity is growing and the industry's potential to worsen our existing PM_{2.5} and ozone nonattainment areas in Pennsylvania and the ozone transport region¹ it is crucial that the current, expansive permit exemptions for oil and gas exploration and production facilities at well pads be drastically narrowed, if not eliminated. In the absence of air permit requirements the Bureau of Air Quality (BAQ) is essentially blind to the emission units located at or associated with oil and gas well pads. BAQ has no basis to determine the number or type of well pad emission units at any given well, let alone whether those units are being operated in accordance with manufacturer specifications, meeting applicable emission rates, or whether total emissions exceed a major source threshold and render the air permit exemption inapplicable.

These numerous, relatively small units also currently avoid emissions reporting requirements. So long as this is the case, efforts in Pennsylvania and throughout the northeastern U.S. to develop control strategies to meet NAAQS standards will be compromised by the lack of reliable emissions information for this large and growing source of emissions.

I. The proposed engine NOx emission limit would result in an irresponsible and unjustifiable increase maximum allowable permit-exempt NOx emissions

Rather than narrowing the current exemption list, the proposed Section 38.i NOx emission limits for engines at well pad emission units would allow oil and gas produces to install and operate larger, more polluting engines at well pads without obtaining a permit. The current air quality permit exemption list requires plan approval for "gas compressor station engines equal to or greater than 100 HP"² Given the 100 HP limit, a natural gas fired engine <100 HP manufactured after July 1, 2008 must meet a HC+NOx emission limit of 2.8 g/bhp.³ Thus under the existing exemption rule, the worst case NOx emissions would be from a 99 HP natural gas fired engine. Even if we assume all 2.8 g/bhp emitted by such an engine is NOx, maximum NOx emissions would be 2.68 TPY.

$$(99 \text{ HP} * 2.8 \text{ g})/453 = 0.61 \text{ lb/hr} = 2.68 \text{ TPY}$$

¹ For a more detailed description of the problem, see pages 1-2 of GASP's contemporaneously filed Comments Regarding Guidance for Performing Single Stationary Source Determinations for the Oil and Gas Industries.

² PADEP, Air Quality Permit Exemption List, Category 38, pp. 6-7 (DEP ID#: 275-2101-003) (Jul. 26, 2003) *available at*: <http://www.elibrary.dep.state.pa.us/dsweb/Get/Document-80104/275-2101-003.pdf>.

³ 40 CFR 1048.101(c).

The new proposed NOx emission limit of 6.6 TPY would more than double the permissible stationary engine NOx emissions that may be emitted at a well pad without a permit.

Further, this 6.6 TPY emission rate would greatly increase the maximum horsepower of well pad engines that are permit exempt. The expanded permit exemption would include compressor engines that are currently permitted under minor source plan approvals or general permit 5. For example, in February the MarkWest Welling Compressor Station in Buffalo Township, Washington County received plan approval # 63-00958 to install four 1980 HP Waukesha P9390GSI natural gas compressor engines controlled by nonselective catalytic reduction.⁴ Each of these engines has an annual NOx emission rate of 3.82 TPY.⁵

Thus the proposed NOx emission rate would allow for an increase in the quantity of permit-exempt NOx emissions at well pads, increase the scope of engines subject to exemption, and may lead natural gas operators to shift from conducting compression activities at permitted compressor station facilities to permit-exempt well pads. The proposed NOx emission rate would result in a drastic decrease in BAQ's already inadequate ability to regulate oil and gas emission units. Given the rapid growth of the Marcellus Shale industry and our existing air pollution problems, such a policy change is unjustifiable.

II. Text omitted from page 9

Portions of the text from the current version of the exemption list appear to have been unintentionally omitted from the proposed revised exemption list. The 6th bullet point on page 9 of the proposed exemption list should be revised to include the deleted text, which reads, "Any sources claiming an exemption based on emission thresholds must keep adequate" before the text reading "records to clearly demonstrate to the Department that the applicable thresholds are not exceeded."

⁴ PADEP, Plan Approval # 63-00958, Markwest Welling Compressor Station, Buffalo Township, Washington County (Feb. 24, 2011).

⁵ PADEP, Review of Plan Approval Application, Markwest Welling Compressor Station, p. 9 (Dec. 29, 2010 (revised Jan. 12, 2011)).



Oil and Gas Exploration and Production Emission Sources

Presentation for the
Air Quality Control Commission Retreat

May 15, 2008

Air Pollution Control Division

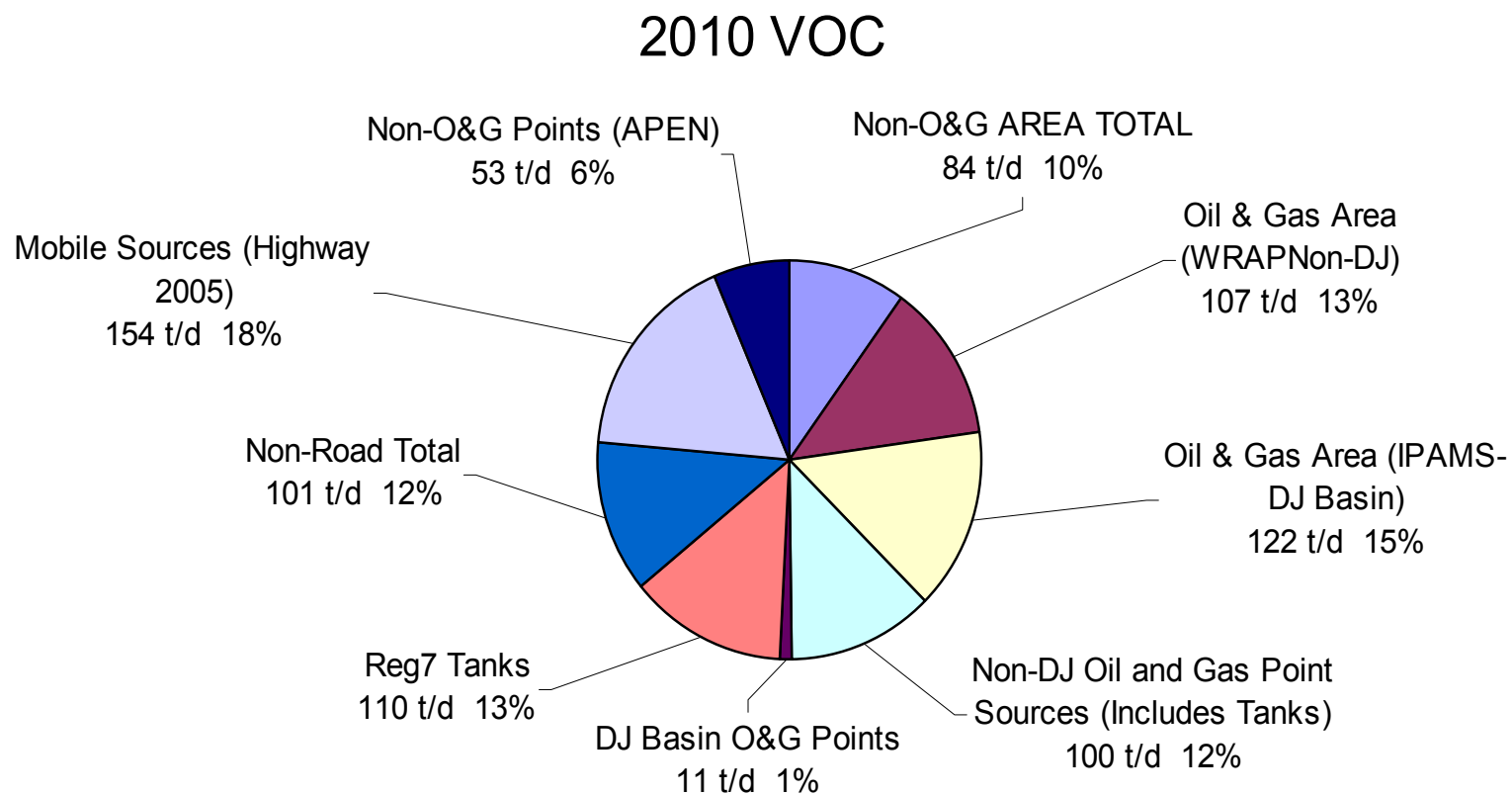


Approach to Statewide Oil and Gas Control Strategy Development

- Oil and gas is the largest VOC source category on the State
- Oil and gas development is rapid and projected to significantly expand – especially in western Colorado
- Strategies are being developed to control the growth in VOC and NO_x emissions from O&G
 - Pre-emptive – “keep clean areas clean”
 - Help prevent ozone nonattainment
 - Improve visibility

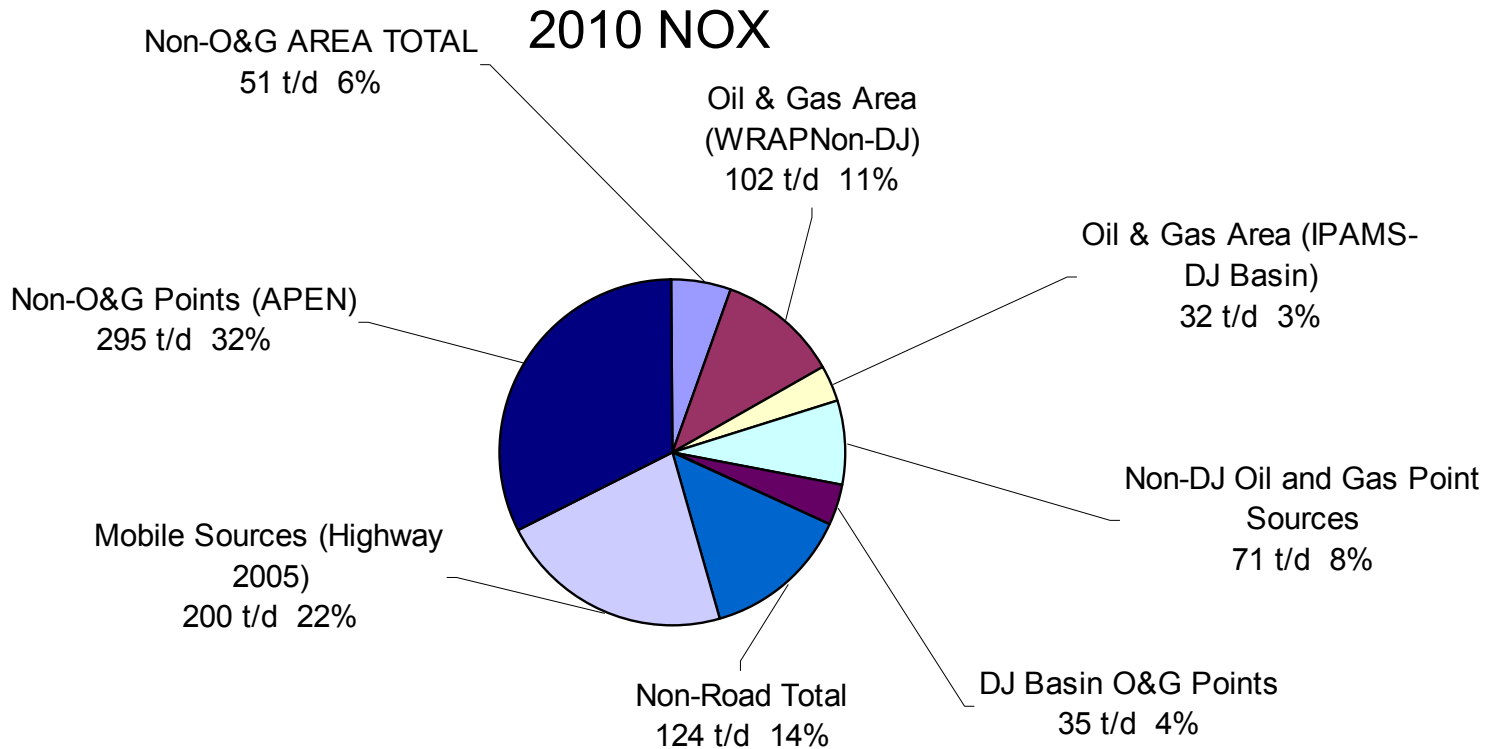
Statewide VOC Emissions – 2010

(4% increase since 2006)



Statewide NOx Emissions – 2010

(8% increase since 2006)





Approach to Statewide Oil and Gas Control Strategy Development

- All current regulatory programs remain in place
- Categorical Exemptions - Eliminate for Significant Oil and Gas Categories - New Sources (VOCs)
- Pneumatics – New, Modified (VOCs)
- Condensate Tanks – New, Modified (VOCs)
- Drill Rigs – New and Existing (NO_x, PM)
- Existing Engines – Retrofit (VOCs, CO, NO_x)



Elimination of Categorical Exemptions for Oil and Gas Sources

- Crude oil truck loading equipment
- Oil/gas production wastewater tanks
- Stationary Internal Combustion Engines meeting horsepower and hours of operation restrictions
- Condensate tanks with production 730 BBL/year or less
- Fuel burning equipment (includes heater treaters, separators, and dehydrator reboilers)
- Petroleum industry flares less than 5 tons per year (tpy) emissions
- Storage of butane, propane, LPG
- Crude oil storage tanks
- Surface water storage impoundment
- Internal combustion engines on drill rigs
- Venting of natural gas lines for safety purposes (for APEN purposes only)
- Oil and gas production activities including: well drilling, workovers, and completions (for APEN purposes only)



GROUP AGAINST SMOG & POLLUTION

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VIA EMAIL

Alan Binder
Pennsylvania Department of Environmental Protection
400 Waterfront Drive
Pittsburgh, PA, 15222
abinder@state.pa.us

January 31, 2011

Group Against Smog & Pollution Comments Regarding Plan Approval 63-00958: MarkWest Liberty Midstream and Resources, LLC Welling Compressor Station, Buffalo Township, Washington County.

Dear Mr. Binder

Please accept these comments regarding Plan Approval 63-00958 for MarkWest Liberty Midstream and Resources, LLC Welling Compressor Station, Buffalo Township, Washington County (41 Pa.B. 52; Jan. 1, 2011) on behalf of the Group Against Smog and Pollution.

If you have any questions or require any additional information please do not hesitate to get in touch.

Sincerely,

Lauren Burge
Joe Osborne
Group Against Smog & Pollution
5604 Solway St., Suite 204
Pittsburgh, PA 15217

Erika Staaf
PennEnvironment
1831 Murray Ave. Ste. 219
Pittsburgh, PA 15217

**GROUP AGAINST SMOG & POLLUTION COMMENTS REGARDING PLAN
APPROVAL 63-00958 FOR MARKWEST LIBERTY MIDSTREAM AND
RESOURCES, LLC WELLING COMPRESSOR STATION, BUFFALO
TOWNSHIP, WASHINGTON COUNTY**

**1. The Source Determination Analysis for the Compressor Station and
Associated Well Sites is Inadequate**

Aggregation Policy Background

A stationary source is defined as “any building, structure, facility, or installation which emits or may emit a regulated NSR pollutant.”¹ A “building, structure, facility, or installation” is defined as:

All of the pollutant-emitting activities which belong to the same industrial grouping, are located on one or more contiguous or adjacent properties, are under the control of the same person (or persons under common control) except the activities of any vessel. Pollutant-emitting activities shall be considered as part of the same industrial grouping if they belong to the same “Major Group” (i.e., which have the same first two digit code).²

If pollutant emitting activities are part of the same “building, structure, facility, or installation,” their emissions must be aggregated and treated as a single source for permitting purposes.³ In September 2009, EPA issued a memo (the McCarthy Memo) clarifying the method for making source determinations for oil and gas operations.⁴ While the McCarthy Memo acknowledged the complexity of source determinations for the oil and gas industry, it reaffirmed that the three factors from EPA’s “building, structure, facility, or installation” definition – whether facilities have the same SIC code, are under common control, and are contiguous or adjacent – must be considered on a case-by-case basis in making such determinations. In addition to applying these three criteria, the explanation in the preamble to the 1980 revisions to the PSD/NNSR rules⁵ and past determinations made by Regional Office should be considered in making these determinations.⁶

¹ 40 C.F.R. §§ 51.165(a)(1)(i); 52.21(b)(5).

² 40 C.F.R. §§ 51.165(a)(1)(ii); 52.21(b)(6); while federal title V rules do not define “building, structure, facility, or installation,” the definition of “stationary source” is to be interpreted consistent with the definition in the PSD program, Memo from Assistant Administrator Gina McCarthy to Regional Administrators, “Withdrawal of Source Determination for Oil and Gas Industries” (September 22, 2009) [hereinafter “McCarthy Memo”].

³ 40 C.F.R. §§ 51.165(a)(1)(iv)(A); 52.21(b)(1)(i).

⁴ McCarthy Memo, *supra* note 2.

⁵ 45 Fed. Reg. 52676, 52694-95 (Aug. 7, 1980).

⁶ McCarthy Memo, *supra* note 2.

a. Same SIC Code

As stated in the application review document associated with the Welling Plan Approval, the Welling Compressor Station and associated natural gas production wells share the same two-digit SIC Code.⁷

b. Common Control

The permit review document states that the “Welling Compressor Station and any upstream natural gas production wells will not be under common ownership. Neither the station nor the well owners will have an ownership stake in the other.”⁸ However, the lack of a direct ownership interest is not determinative of whether common control exists.

Common control is a fact-specific inquiry that EPA conducts on a case-by-case basis.⁹ It involves “the power of one business entity to affect the construction decisions or pollution control decisions of another business entity.”¹⁰ While EPA does not have a specific test for determining if common control exists, it adopts the SEC’s definition of control, which “means the possession, direct or indirect, of the power to direct or cause the direction of the management and policies of a person, whether through ownership of voting shares, by contract, or otherwise.”¹¹

EPA guidance has established a method by which it can be determined whether common control exists. Common control can be established if:

- (1) There is “ownership of multiple sources by the same parent corporation or by a parent and a subsidiary of the parent corporation,” or if
- (2) “an entity such as a corporation has the power to direct the management and policies of a second entity, thus controlling its operations, through a contractual agreement or a voting interest.”

If neither of these conditions exist, then the permitting authority should:

- (3) “consider whether there is a contract for service relationship between the two companies or if a support/dependency relationship exists between the two companies.”¹²

⁷ PADEP, Review of Plan Approval Application Welling Compressor Station (Dec. 29, 2010, Revised Jan. 12, 2011) at 8 [hereinafter *Review of Welling Plan Approval*].

⁸ *Id.* at 7.

⁹ 45 Fed. Reg. 59874, 59878 (Sept. 11, 1980).

¹⁰ *Id.*

¹¹ 17 C.F.R. § 210.1-02(g), 45 Fed. Reg. at 59,878.

¹² EPA Region 8, *Single Source Determination for Coors/TriGen*, Nov. 12, 1998, at 2, available at <http://www.epa.gov/region7/air/title5/t5memos/coorstri.pdf>; John S. Seitz, Memorandum, *Major Source Determinations for Military Installations under the Air Toxics, New Source Review, and Title V Operation Permit Programs of the Clean Air Act (Act)*, Aug. 2, 1996, at 3-4, available at <http://www.epa.gov/region7/air/nsr/nsrmemos/dodguid.pdf>.

PADEP's "Interim Guidance for Performing Single Stationary Source Determinations for the Oil and Gas Industries" recognizes each of these sources of common control:

First, common control can be established by ownership. That is, both facilities are owned by the same parent company or a subsidiary of the parent company. Second, common control can be established if an entity such as a corporation has decision-making authority over the operation of a second entity through a contractual agreement or voting interest. If common control is not established by the first two ways, then one should next look at whether there is a contract for service relationship between the two companies⁴¹ or if a support/dependency relationship exists between the two companies, as discussed above, in order to determine if a common control relationship exists.¹³

To be consistent with the federal definition of source and PADEP's source determination guidance the DEP's common control analysis for the Welling Compressor Station must consider each of these potential avenues of common control (direct ownership, ownership through parent-subsidiary relationships, power to direct through voting interest or contract, in its source determination, or if a support or dependency relationship exists between the pollutant emitting activities).

A relationship between the facilities and thus common control can be established if, for example: the facilities share workforces, managers, or executive officers; the facilities share equipment or other property; decisions made at one facility affect pollution control at the other facility; facilities have common payroll, employee benefits, or administrative functions; operations at one facility support operations at the other; or if one facility is dependent on the other.¹⁴ These are just some factors that can indicate that common control exists; EPA will also look to contracts, lease agreements, or other relevant documents to determine the nature of the relationship between facilities.¹⁵

In this case, the operations at the natural gas production wells support the operations at the Welling Compressor Station, and these facilities are dependent on each other for services that allow continued operation. If the production wells did not exist, the Welling Compressor Station would not have product to process and would not have a reason to exist; likewise, if the compressor station did not exist, unless the wells have pipeline connections to additional compressor stations, the well would not be able to produce natural gas and move it off site. There is an operations support and/or dependency relationship between the Welling Compressor Station and associated natural gas production wells. This relationship alone could be sufficient to establish common control.

¹³ PADEP, *Interim Guidance for Performing Single Stationary Source Determinations for the Oil and Gas Industries* (Dec. 25, 2010) at 12-13 (citations omitted).

¹⁴ William Spratlin letter to Peter Hamlin, Sept. 18, 1995, at 1-2, *available at* <http://www.epa.gov/region07/air/policy/control.pdf>.

¹⁵ *Id.*

Further, these facilities presumably have entered into contracts that demonstrate the nature of their support or dependency on each other. For instance, MarkWest Energy Partners L.P. 2009 Form 10-K states, “MarkWest Liberty Midstream currently provides gathering and processing services under an agreement with an affiliate of Range Resources Corporation (“Range”) and has agreements to begin providing these processing services to several other producers in 2010.”¹⁶ PADEP cannot limit its common control inquiries to direct ownership. Consistent with EPA guidance, DEP must also consider contractual control, effective control, or stock ownership.

Additionally, MarkWest Energy Partners L.P. 2009 Form 10-K describes MarkWest Liberty Midstream as “a joint venture with M&R MWE Liberty LLC (“M&R”), an affiliate of NGP Midstream & Resources, L.P. and its affiliated funds, which is a private equity firm.”¹⁷ Commenters note that because a significant ownership stake in MarkWest Liberty Midstream is held by a private equity firm, it is challenging to determine if common ownership exists, because privately-held firms have very limited obligations to disclose their business interests relative to publicly traded companies. Does DEP’s assertion that “neither the station nor the well owners will have an ownership stake in the other” include an investigation of the ownership interests of “M&R MWE Liberty LLC (“M&R”), an affiliate of NGP Midstream & Resources, L.P. and its affiliated funds”?

c. Contiguous or Adjacent

Citing a lack of common control, PADEP did not perform a contiguous and adjacent analysis for the well sites and Welling Compressor Station. As stated in the section above, commenters believe the common control analysis was too narrow because it failed to consider other potential avenues of common control such as contractual control, effective control, or ownership through private equity firms. If, upon further analysis DEP deems the common control factor to be satisfied, the contiguous and adjacent factor must be considered as well.

2. Because the Welling Compressor Station is a “Petroleum and Natural Gas System,” the Greenhouse Gas Reporting Requirements in the Plan Approval Must Also Include Reporting Requirements in 40 C.F.R. Part 98, Subpart W.

Plan Approval Conditions C.IV.008 through C.IV.010 list the Mandatory Greenhouse Gas Reporting requirements found in 40 C.F.R. Part 98. These conditions in the Plan Approval only apply the general GHG reporting requirements and the Subpart C requirements for General Stationary Fuel Combustion Sources. However, because the Welling Compressor Station also qualifies as a “Petroleum and Natural Gas System,” the

¹⁶ MarkWest Energy Partners L.P., 2009 Form 10-k at 7, *available at*: <http://www.sec.gov/Archives/edgar/data/1166036/000104746910001643/a2196773z10-k.htm#ITEM1>

¹⁷ *Id.*

Plan Approval must also include the Subpart W requirements that apply to sources in this category.

The Welling Compressor Station qualifies as an “onshore natural gas transmission compression” facility because it is a “stationary combination of compressors that move natural gas at elevated pressure from production fields or natural gas processing facilities in transmission pipelines to natural gas distribution pipelines or into storage.”¹⁸ It also qualifies as an “onshore natural gas processing” facility because it “separates and recovers natural gas liquids (NGLs) and/or other non-methane gases and liquids from a stream of produced natural gas . . .”¹⁹ As such, the operator must report emissions from a number of additional sources. Notably, this includes reporting GHGs released via equipment leaks from “valves, connectors, open ended lines, pressure relief valves, and meters.”²⁰ Other sources from which GHG emissions must be reported are: reciprocating compressor rod packing venting; centrifugal compressor venting; blowdown vent stacks; dehydrator vents; acid gas removal vents; flare stack emissions; transmission storage tanks; and natural gas pneumatic device venting.²¹

Also, 40 C.F.R. § 98.230(j) requires that sources in the Petroleum and Natural Gas Systems category report CO₂, CH₄, and N₂O emissions from all flares associated with the source. The Subpart C requirements relating to General Stationary Fuel Combustion Sources still apply and require reporting of CO₂, CH₄, and N₂O emissions from all stationary fuel combustion units.²² The Plan Approval must be amended to include these additional monitoring and reporting requirements, in addition to those already outlined in the Draft Plan Approval.

3. The Facility-Wide Potential to Emit Table Fails to Account for All Hazardous Air Pollutant (HAP) Emissions

Table 7 of the permit review document fails to account for all HAP & VOC emissions generated at the facility.²³ Table 7 facility-wide HAP emissions figures do not include non-formaldehyde HAPs generated by the compressor engines (1.02 additional TPY²⁴). Formaldehyde emissions from the dehydrator appear to have been excluded as well.

4. The Facility-Wide Potential to Emit Table Fails to Account for All Volatile Organic Compound (VOC) Emissions

¹⁸ 40 C.F.R. § 98.230(a)(4) (2010).

¹⁹ 40 C.F.R. § 98.230(a)(3).

²⁰ 40 C.F.R. § 98.232(d)(7), (e)(7).

²¹ 40 C.F.R. § 98.232(d), (e).

²² 40 C.F.R. 98.232(k).

²³ *Review of Welling Plan Approval*, *supra* note 7 at 11.

²⁴ AP-42 Tables 3.2-2 & 3.2-3,

Table 7 of the permit review document fails to include compressor station formaldehyde emissions in total facility-wide VOC emissions.²⁵ While formaldehyde emissions are not included in VOC emissions for the Stationary Spark Ignition Internal Combustion Engines NSPS, formaldehyde emissions must be considered in the VOC PTE calculation for Title V/NSR applicability.²⁶ Thus, compressor engine formaldehyde emissions should be included in table 7 of the Welling TSD (as well as all future PADEP facility-wide PTE calculations for compressor stations) in order to ensure a source that exceeds the 50 TPY VOC major source permit threshold does not avoid major source permitting requirements.

5. No Emissions from Saltwater and Condensate Truck Loading are Included in the Permit Record

The block diagram included in the permit application indicated saltwater and condensate will be loaded on trucks at this facility.²⁷ Condensate loadout can be a significant source of VOCs. The permit record contains no discussion of emissions associated with truck loading; however, the block diagram shows no vapor recovery equipment associated with this activity. Emissions associated with truck loading must be quantified and included in the permit.

²⁵ *Review of Welling Plan Approval, supra* note 7 at 11.

²⁶ 40 C.F.R. § 51.100(s); 40 C.F.R. § 70.2.

²⁷ MarkWest, Welling Compressor Station Plan Approval Application (Nov. 23, 2010) Section 6 – Site Map & Block Diagrams at 3.



GROUP AGAINST SMOG & POLLUTION

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VIA EMAIL AND FIRST CLASS MAIL

Alan Binder
Pennsylvania Department of Environmental Protection
400 Waterfront Drive
Pittsburgh, PA, 15222

December 13, 2010

Group Against Smog & Pollution Comments Regarding Plan Approval (PA-26-00588) Laurel Mountain Midstream Operating, LLC Air Pollution Control Permit for Shamrock Compressor Station, German Township, Fayette County.

Dear Mr. Binder

Please accept these comments regarding Plan Approval (PA-26-00588) for Laurel Mountain Midstream Operating, LLC Air Pollution Control Permit Shamrock Compressor Station, German Township, Fayette County, (40 Pa.B. 6537, Saturday, November 13, 2010) on behalf of the Group Against Smog and Pollution.

If you have any questions or require any additional information please do not hesitate to get in touch.

Sincerely,

Joe Osborne, Esq.
Legal Director
Group Against Smog & Pollution

**GROUP AGAINST SMOG & POLLUTION COMMENTS REGARDING PLAN
APPROVAL (PA-26-00588) FOR SHAMROCK COMPRESSOR STATION,
GERMAN TOWNSHIP, FAYETTE COUNTY**

1. The Department’s Aggregation Analysis Contains Multiple Serious Flaws and Fails to Meet Minimum Federal Requirements for SIP-Approved Title V and NSR Permit Programs

In order to administer its own major source Title V and NSR program, PADEP’s regulations must be at least as stringent as EPA’s requirements for each program.¹ EPA defines a stationary source as “any building, structure, facility, or installation which emits or may emit a regulated NSR pollutant.”² EPA defines a “building, structure, facility, or installation” as:

all of the pollutant-emitting activities which belong to the same industrial grouping, are located on one or more contiguous or adjacent properties, and are under the control of the same person (or persons under common control) except the activities of any vessel. Pollutant-emitting activities shall be considered as part of the same industrial grouping if they belong to the same “Major Group” (i.e., which have the same first two digit code)³

If pollutant-emitting activities are part of the same “building, structure, facility, or installation,” their emissions must be aggregated and treated as a single source for permitting purposes.⁴ In September 2009 EPA issued a memo (the McCarthy Memo) clarifying the method for making source determinations for oil and gas operations.⁵ While the McCarthy Memo acknowledged the complexity of source determinations for the oil and gas industry, it reaffirmed that the three factors from EPA’s “building, structure, facility, or installation” definition—whether facilities have the same SIC code, are under common control, and are contiguous or adjacent—must be considered on a case-by-case basis in making such determinations. In addition to applying these three criteria, the explanations in the preamble to the 1980 revisions to the PSD/NNSR rules,⁶ and past determinations made by Regional Offices should be considered in making these determinations.⁷

¹ 40 C.F.R. § 51.165; 45 Fed. Reg. 52676 (Aug. 7, 1980); 40 C.F.R. § 70.1(c).

² 40 C.F.R. §§ 51.165(a)(1)(i); 52.21(b)(5).

³ 40 C.F.R. §§ 51.165(a)(1)(ii); 52.21(b)(6); while federal title V rules do not define “building, structure, facility, or installation,” the definition of “stationary source” is to be interpreted consistent with the definition in the PSD program, Memo from Assistant Administrator Gina McCarthy to Regional Administrators, “Withdrawal of Source Determination for Oil and Gas Industries” (September 22, 2009) [hereinafter “McCarthy Memo”].

⁴ 40 C.F.R. §§ 51.165(a)(1)(iv)(A); 52.21(b)(1)(i).

⁵ McCarthy Memo *supra* note 3.

⁶ 45 Fed. Reg. 52676, 52694–95 (Aug. 7, 1980).

⁷ McCarthy Memo *supra* note 3.

PADEP’s technical review memo does discuss the three source aggregation factors EPA identified; however, the Department’s aggregation analysis for Shamrock contains several critical flaws. PADEP correctly observes that the Shamrock compressor station and production wells share the same SIC code,⁸ but the Department’s consideration of the other two factors—common control and location on contiguous or adjacent properties—rely on an excessively narrow interpretation of these factors to conclude Shamrock need not be aggregated with associated production wells. PADEP’s interpretation of these factors is inconsistent with the plain language of EPA’s definition of stationary source, the preamble to the 1980 revisions to the PSD/NNSR rules, and numerous EPA regional office source determinations.

1.1. PADEP’s Common Control Analysis is Inadequate

Neither federal nor Pennsylvania PSD/NNSR or title V regulations define “control.” Instead, EPA relies on the SEC’s definition of control.⁹ The SEC definition states:

“Control is the possession, direct or indirect, of the power to direct or cause the direction of the management and policies of a person (or organization or association) whether through the ownership of voting shares, contract, or otherwise.”¹⁰

Other EPA air regulations include a similar definition, for instance 40 CFR § 66.3 (concerning collection of Clean Air Act § 120 noncompliance penalties) states that, “[c]ontrol (including the terms controlling, controlled by, and under common control with) means the power to direct or cause the direction of the management and policies of a person or organization, whether by the ownership of stock, voting rights, by contract, or otherwise.”¹¹

1.1.1. PADEP’s Common Control Analysis Ignores Atlas Energy’s Ownership Stake in Laurel Mountain Midstream

PADEP’s common control discussion states “LMM [Laurel Mountain Midstream and its parent company (The Williams Companies, Inc.) do not have an ownership stake in any of the production wells that supply natural gas to Shamrock Compressor Station.”¹² Regardless of whether LMM or the Williams Companies exert control over any production wells feeding Shamrock, this statement ignores the fact that the common

⁸ PADEP, Review of Plan Approval Application Shamrock Compressor Station (Nov. 12, 201, (Revised Nov. 23, 2010) p. 7. [hereinafter Review of Shamrock Plan Approval].

⁹ 45 Fed. Reg. 59874, 59878 (Sept. 11, 1980).

¹⁰ 17 C.F.R. § 240.12b-2.

¹¹ 40 CFR § 66.3(f).

¹² Review of Shamrock Plan Approval *supra* note 8, at p. 7.

control factor is also satisfied if the owner of production wells feeding the compressor station has an ownership stake in the Shamrock Compressor Station.

Commenters have identified 73 nearby permitted wells operated by Atlas Resources LLC (see Attachment 1: Table of Atlas Resources LLC Wells Near Shamrock Compressor Station; and Figure 1, below). Given their proximity to the Shamrock site, we believe most, if not all, of these well sites are or will eventually be connected to the Shamrock Compressor Station.

Figure 1: Map of Atlas Resources LLC Wells Near Shamrock Compressor Station¹³



Atlas Resources LLC is a subsidiary of Atlas Energy Inc.¹⁴ Atlas Energy Inc. has a large ownership stake in and the ability to exert significant control over Laurel Mountain Midstream LLC through a complex web of subsidiaries and joint ventures: other subsidiaries of Atlas Energy Inc. include Atlas Pipeline Holdings, L.P (AHD) and Atlas Pipeline Partners, L.P. (APL).¹⁵ Atlas Energy Inc. owns a 64.3% ownership

¹³ Derived from Attachment 1: Table of Atlas Resources LLC Wells Near Shamrock Compressor Station.

¹⁴ Atlas Energy, Inc., Form 10-k, Exhibit 21.1: Subsidiaries of Atlas Energy, Inc., (filed Feb. 26, 2010) pdf p. 228, available at: <http://phx.corporate-ir.net/phoenix.zhtml?c=176445&p=irol-sec>, [hereinafter Atlas Energy Form 10-k].

¹⁵ *Id.*

interest in AHD and a 100% ownership interest in its general partner.¹⁶ AHD, in turn, owns at 13.2% ownership interest in APL and a 100% ownership interest in APL's general partner.¹⁷ This is in addition to Atlas Energy's direct 2.2% ownership interest in APL.¹⁸ Or, to put the relationship more simply using Atlas Energy's own words: "Our consolidated financial statements contain the financial statements of AHD, *which we control*, and APL, *which is controlled by AHD*."¹⁹

In its most recent form 10-k SEC filing, Atlas Energy Inc. describes Laurel Mountain Midstream LLC as: "a newly-formed joint venture between APL and The Williams Companies, Inc."²⁰ and notes that APL has "a 49.0% ownership interest" in Laurel Mountain Midstream LLC. Thus Atlas Energy Inc. controls both Atlas Resources LLC—which has obtained permits for 73 wells in close proximity to Shamrock—and owns a 49% stake in Laurel Mountain Midstream LLC, the operator of the Shamrock Compressor Station. This ownership interest is likely sufficient in itself to establish common control.²¹

1.1.2. PADEP's Common Control Analysis Ignores Atlas Energy's Contractual Relationship With Laurel Mountain Midstream

While an ownership interest like the Atlas/LMM relationship described above is likely sufficient in itself to establish common control, common control may also be established when there is no common ownership involved.²² Common control can also be established through contractual relationships,²³ such as "contract-for service"

¹⁶ *Id.* at p. 51.

¹⁷ *Id.*

¹⁸ *Id.*

¹⁹ *Id.* at p. 23.

²⁰ *Id.* at p. 56.

²¹ See e.g. Letter from Richard R. Long, U.S. EPA Region 8 to Margie Perkins, Colorado Department of Public Health and the Environment (Oct. 1, 1999) pp. 4-5, *available at*: <http://www.epa.gov/region7/air/nsr/nsrmemos/frontran.pdf>, (finding a 50/50 or 51/49 percent ownership arrangement sufficient to establish common control and noting "EPA guidance published in 1979 indicates that an ownership interest as low as 10 percent may result in control, while ownership of 50 percent necessarily results in control. See 44 Fed. Reg. 3279 (January 16, 1979).").

²² Letter from Judith M. Katz, Director Air Protection Division EPA Region III to James Salvaggio, PADEP Director of Air Quality (Jun. 10, 1992) *available at*: <http://www.epa.gov/region07/air/nsr/nsrmemos/nehubltr.pdf> (finding emission units owned by Northeast Hub Partners and United Salt must be treated as a single source) [hereinafter United Salt]; Letter from Richard R. Long Director, Air Program, EPA Region VIII to Julie Wrend, Legal Administrator, Air Pollution Control Division, CDPHE, Single Source Determination for Coors/Trigen (Nov 12, 1998) p. 2, *available at*: <http://www.epa.gov/region07/air/nsr/nsrmemos/coorstri.pdf> (finding emission units owned by Coors and Trigen must be treated as a single source).

²³ 17 C.F.R. § 240.12b-2.

activities,²⁴ single purchaser contracts,²⁵ or the contractual right to exert direct control over another facility.²⁶

Atlas Energy's Form 10-k describes the gathering agreements between Atlas and Laurel Mountain Midstream, LLC:

Under the Gathering Agreements, [Atlas] will dedicate [its] natural gas production in the Appalachian Basin to Laurel Mountain for transportation to interstate pipeline systems, local distribution companies, and/or end users in the area, subject to certain exceptions. In return, Laurel Mountain is required to accept and transport our dedicated natural gas in the Appalachian Basin subject to certain conditions²⁷

The obligations of each party are described in greater detail in the gathering agreements themselves: Atlas Energy Resources LLC “dedicates to LMM for Gathering all . . . present and future right, title, and interest in Gas” in the Appalachian Basin.²⁸ Under these agreements, virtually all Appalachian Basin natural gas produced by Atlas Energy Inc. and its subsidiaries will be transported via LMM infrastructure—in other words, a single purchaser contract indicative of common control.

Though the relevant time period and geographic scope are redacted, an additional, independent basis for establishing common control exists in all areas where LMM is obligated to dedicate 100% of its gathering capacity to Atlas:

“LMM hereby reserves for the sole benefit of the Shippers one hundred percent (100%) of the capacity of the Gathering System (as currently existing and in the future expanded) in the following townships located in [Redacted], Pennsylvania: [Redacted].”²⁹

Atlas Energy's Form 10-k also includes pipeline construction obligations constituting a contractual right to exert direct control over another facility:

²⁴ Letter from John S. Seitz, “Major Source Determinations for Military Installations,” (Aug. 2, 1996) p. 3, *available at*: <http://www.epa.gov/region7/air/title5/t5memos/dodguid.pdf>.

²⁵ Letter from Richard R. Long, U.S. EPA Region 8 to Margie Perkins, Colorado Department of Public Health and the Environment (Oct. 1, 1999) pp. 2-4, *available at*: <http://www.epa.gov/region7/air/nsr/nsrmemos/frontran.pdf>.

²⁶ *Id.*

²⁷ Atlas Energy Form 10-k, *supra* note 13, at pp. 18-19.

²⁸ Gas Gathering Agreement for Natural Gas on the Legacy Appalachian System dated as of June 1, 2009 between Laurel Mountain Midstream, LLC and Atlas America, LLC, *et al.*, condition 1.1.1(a), p.3 [hereinafter Legacy Agreement]; Gas Gathering Agreement for Natural Gas on the Expansion Gathering System dated as of June 1, 2009 between Laurel Mountain Midstream, LLC and Atlas America, LLC, *et al.* condition 1.1.1(a), p.3, [hereinafter Expansion Agreement]. (Both agreements are publically available in Atlas Energy, Inc., Form 10-q, (filed Aug. 10, 2009) at pages 64 and 110 respectively, *available at*: <http://phx.corporate-ir.net/phoenix.zhtml?c=176445&p=irol-sec>.)

²⁹ Legacy Agreement *supra* note 27 condition 1.1.3 p.5; Expansion Agreement *supra* note 27 condition 1.1.5 p.5.

To the extent that we own wells or propose wells that are within 2,500 feet of Laurel Mountain's gathering system, we must at our cost construct up to 2,500 feet of flowline as necessary to connect the wells to the gathering system. For wells more than 2,500 feet from Laurel Mountain's gathering system, if we construct a flow line to within 1,000 feet of Laurel Mountain's gathering system, then Laurel Mountain must, at its own cost, extend its gathering system to connect to such flowline.³⁰

1.1.3. PADEP's Common Control Analysis Ignores Several Other Factors Indicative of Common Control

For cases where ownership is insufficient to establish common control, EPA has assembled a list of questions permitting authorities should consider.³¹ Answering any of these questions in the affirmative is indicative of common control.³² The relationship between Laurel Mountain Midstream and Atlas Energy at the Shamrock Compressor Station clearly demands "yes" answers to at least two of the questions EPA suggests:

Do the facilities share common workforces?³³

Atlas Energy Inc.'s form 10-k states, "[w]e perform regular inspection, testing and monitoring functions on our operated wells and Laurel Mountain's gathering systems with our own personnel."³⁴

What is the dependency of one facility on the other? If one shuts down, what are the limitations on the other to pursue outside business interests?³⁵

Atlas Energy Inc.'s form 10-k states, "Our Appalachia business depends on the gathering and transportation facilities of Laurel Mountain Midstream, LLC ("Laurel Mountain"). Any limitation in the availability of those facilities would interfere with our ability to market the natural gas we produce and could reduce our revenues and cash flows. Laurel Mountain gathers more than 71% of our current Appalachia production."³⁶

Using previous EPA source determinations as a guide, it is likely that the ownership interest alone or the contractual obligations alone are each independently sufficient to establish common control. Considered together, along with the additional factors identified in section 1.1.3 the common control factor is undeniably satisfied.

³⁰ *Id.*

³¹ Letter from William A. Spratlin, U.S. EPA Region 7, to Peter Hamlin, Iowa Department of Natural Resources (Sep. 18, 1995) p. 1-2, *available at*: <http://www.epa.gov/region7/air/title5/t5memos/control.pdf> [hereinafter Spratlin Letter].

³² *Id.*

³³ *Id.*

³⁴ Atlas Energy Form 10-k, *supra* note 13, at p. 15.

³⁵ Spratlin Letter *supra* note 30, at pp. 1-2.

³⁶ Atlas Energy Form 10-k, *supra* note 13, at p. 35.

1.2. PADEP's Adjacent and Contiguous Analysis is Inadequate

Source aggregation decisions made by EPA Regional Offices over the last thirty years concerning whether facilities are “contiguous or adjacent,” generally focus on proximity, dependency or interdependence, and the existence of a physical connection, such as a pipeline, between facilities. These considerations represent how EPA determines if source aggregation is necessary to ensure the equipment and activities being permitting conform to the common sense notion of a plant. In addition, even if one of the criteria, such as proximity, is somewhat weak, particularly strong facts in another category, such as dependency or the existence of a physical connection, can weigh in favor of the facilities being considered contiguous or adjacent.³⁷

1.2.1. PADEP's Contiguous and Adjacent Analysis Fails to Consider Dependency of Production Wells on the Shamrock Compressor Station

PADEP mistakenly concludes that the Shamrock Compressor Station is not contiguous and adjacent with physically connected production wells by restricting the “dependency” inquiry to whether the compressor station is dependent on any single production well: “Natural gas production wells are directly connected to the Shamrock Compressor Station by pipeline through which natural gas flows in only one direction. The Shamrock Compressor Station is dependant on no single well in particular.”³⁸ Commenters agree the Shamrock Compressor Station is not dependent on a single production well; however, this fact does not affect the adjacent and contiguous analysis because the dependency test is also satisfied if production wells are dependent on the compressor station. In October 2010, EPA Region V addressed a similar gas well configuration, concluding “the sour gas wells are truly interdependent on the sweetening plant—the wells provide all their sour gas to the sweetening plant, the sour gas cannot flow anywhere else”³⁹

Lacking from the Region V analysis was any requirement that the sweetening plant be dependent on any one specific production well (or on all production wells for that matter). Commenters have not identified any guidance or regulatory language to indicate that satisfying the adjacent and contiguous test via dependency requires *mutual* dependence, but we have identified many instances where unilateral dependence was

³⁷ Letter from Richard R. Long, Director Air and Radiation Program EPA Region 8 to Dennis Myers, Construction Permit Unit Leader, Colorado Department of Public Health and Environment, Air Pollution Control Division (Apr. 20, 1999), *available at*: <http://www.epa.gov/region07/air/nsr/nsrmemos/amersoda.pdf>, (“we believe that the distance alone does not preclude these two being considered adjacent for PSD permitting purposes.”)

³⁸ Review of Shamrock Plan Approval *supra* note 8, at p. 7.

³⁹ Letter from Cheryl L. Newton, Director, EPA Region 5 to Scott Huber, Summit Petroleum Corp., (Oct. 18, 2010) p.6, *available at*: <http://www.epa.gov/region7/air/title5/t5memos/singler5.pdf> [hereinafter Summit Petroleum].

deemed sufficient.⁴⁰ Thus Commenters do not believe mutual dependency is necessary to satisfy the adjacent and contiguous factor. Further, even if mutual dependency were necessary, the appropriate inquiry would be the dependency of the compressor station on the gas field it serves, not its dependency on each and every individual well. A mutual dependency requirement based on each individual production well could never be satisfied because compressor stations are rarely, if ever, established to serve a single production well. If mutual dependency on a well-by-well basis were the test, oil and gas production wells could never possibly be aggregated and considered a single source. A dependency test rendering oil and gas production well aggregation impossible is clearly contrary to EPA's regulatory intent given that EPA has regularly acknowledged the potential for oil and gas production wells to be aggregated.⁴¹

Unless the production wells surrounding the Shamrock Compressor Station also have separate pipeline connections to other compressor stations or directly to a natural gas transmission line, each production well has no means other than via Shamrock to transport natural gas from the production well to market—meaning the well is entirely dependent on Shamrock.

2. VOC Emissions from the Shamrock Compressor Station and Aggregated Production Wells Likely Exceed the 50 TPY VOC Major Source Threshold

In southwestern Pennsylvania the title V/NSR Major Source Threshold for VOCs is 50 TPY.⁴² Commenters believe that after accounting for additional VOC emissions at the compressor station and VOC emissions at or near the associated production wells, total source VOC PTE will exceed the 50 TPY VOC Major Source Threshold.

2.1. The VOC Potential to Emit Calculations for the Compressor Engines Do Not Include Formaldehyde

While formaldehyde emissions are not included in VOC emissions for the Stationary Spark Ignition Internal Combustion Engines NSPS, formaldehyde emissions are included in the VOC PTE calculation for title V/NSR applicability.⁴³ Thus based on the formaldehyde emissions estimates provided by the applicant, 6.88 additional TPY

⁴⁰ See e.g. Summit Petroleum *supra* note 38; United Salt *supra* note 21 (finding United Salt dependent on Northeast Hub and acknowledging that without United Salt facility Northeast Hub could use subsurface reinjection/disposal of the brine); EPA Office of Air Quality Planning and Standards, Analysis of the Applicability of Prevention of Significant Deterioration (PSD) to the Anheuser-Busch, Inc. Brewery (Aug. 27, 1996) *available at*: <http://www.epa.gov/region07/air/nsr/nsrmemos/abnt.pdf> (finding Brewery's dependence on landfarm sufficient to establish adjacency).

⁴¹ See e.g. McCarthy Memo *supra* note 3; Summit Petroleum *supra* note 38; US EPA, Order Responding to Petitioners; Request that the Administrator Object to Issuance of a State Operating Permit, Permit No. VIII-2008-02, Oct. 8, 2009, *available at*: <http://www.cdphe.state.co.us/ap/down/A-1EPAOrderAnadarkoFrederickStation10.08.09.pdf>.

⁴² 40 C.F.R. § 51.165(a)(1)(iv)(A)(1)(ii); 25 Pa. Code § 127.201(c).

⁴³ 40 C.F.R. § 51.100(s); 40 C.F.R. § 70.2.

should be added to the Shamrock Station VOC PTE, meaning total VOC PTE from the compressor station alone is 26.24 TPY.

2.2. Condensate Tank Venting and Other VOC Emissions at or Near Associated Production Wells Will be Substantial

PADEP concludes its flawed aggregation analysis by stating that “[t]he natural gas analysis provided by the applicant for the inlet of this compressor station is "dry" with a low VOC weight percent. Combined VOC emissions from the compressor station and supplying natural gas wells would be expected to be less than the 50 TPY major source threshold in any case.”⁴⁴

Commenters disagree and note that compressor inlet gas composition provides no basis for determining the natural gas liquid (NGL) content, and attendant VOC emissions, of gas at the wellhead. By the Department’s own admission, southwestern Pennsylvania is a “wet gas” area.⁴⁵ If the inlet gas composition data supplied by the applicant is representative of typical compressor inlet gas composition it is almost certainly due to condensate removal at or near the wellhead. Condensate tank venting is a significant source of VOC emissions: for instance, the 476 bbl condensate tank located at the Shamrock Compressor Station is projected to emit 1.02 TPY VOCs.⁴⁶

As stated in Section 1, commenters believe the majority of the 73 permitted production wells and related emission units operated by Atlas Resources LLC near the Shamrock station must be aggregated with Shamrock. Other sources of VOC emissions at or near the production wells that must be considered include: flares, well completions, dehydrators, process heaters, and component leaks. Potential VOC emissions from these activities could easily exceed the 23.76 TPY necessary to bring the aggregated source above the 50 TPY VOC major source threshold.

3. PADEP Must Perform a New Aggregation Analysis For The Shamrock Compressor Station

As stated in the sections above, under an appropriate aggregation analysis the common control and continuous and adjacent aggregation factors are satisfied for those production wells that are:

- 1) operated by Atlas Resources LLC, and
- 2) capable of piping natural gas solely to the Shamrock Compressor Station

⁴⁴ Review of Shamrock Plan Approval *supra* note 8, at p.7

⁴⁵ PADEP, Southwest Pa. Marcellus Shale Short-Term Air Sampling Report (Nov. 1, 2010) p.21 *available at*: http://www.dep.state.pa.us/dep/deputate/airwaste/aq/aqm/docs/Marcellus_SW_11-01-10.pdf.

⁴⁶ Review of Shamrock Plan Approval *supra* note 8, at p. 9.

Therefore PADEP must perform a new aggregation analysis for the Shamrock Compressor Station and associated production wells. Further, if the flawed interpretation of federal major source determination requirements performed for the draft Shamrock plan approval is representative of the Department's typical source aggregation analyses it may be grounds for an EPA finding that PADEP is failing to implement its SIP⁴⁷ and may result in sanctions.⁴⁸

4. The Draft Permit Contains No Practically Enforceable Requirements Limiting Formaldehyde and Total HAP PTE

According to application materials submitted by Laurel Mountain Midstream LLC, "The Shamrock Compressor Station will have the potential to emit pollutants in major amounts without federally enforceable emission limitations As such, and in order to maintain the potential to emit below major source thresholds, enforceable restrictions on emissions for all Shamrock Compressor Station emission units will need to be established in a plan approval."⁴⁹ Among the pollutants with a PTE in excess of major source thresholds were formaldehyde and total HAPs.⁵⁰ However, the final permit contains no emission limits on formaldehyde or total HAPs and no monitoring, or reporting requirements which might serve to verify formaldehyde and total HAPs emissions remain below their respective major source thresholds.

Section H of the permit does contain a blanket emission limit prohibiting the source from exceeding major source thresholds,⁵¹ however, such restrictions alone cannot be used to limit potential to emit because they are not enforceable as a practical matter;⁵² rather a PTE limitation must be a "physical or operational limitation,"⁵³ such as a "restriction[] on hours of operation or on the amount of material which may be combusted or produced,"⁵⁴ or a limit derived from pollution control equipment coupled with enforceable emission rates included in the permit.⁵⁵

In the absence of practically enforceable emission limits prohibiting the source from exceeding a HAPs major source threshold (such as formaldehyde emission rates for the compressor oxidation catalysts) control device capture efficiencies cannot be included

⁴⁷ 42 U.S.C. § 7509(a)(4).

⁴⁸ 42 U.S.C. § 7509(b).

⁴⁹ Laurel Mountain Midstream LLC, Attachment A - Shamrock Compressor Station Plan Approval Application Supplement (Aug. 19, 2010) p. 1.

⁵⁰ *Id.* at Table 1 p. 1.

⁵¹ PADEP application p.35.

⁵² *U.S. v. Louisiana-Pacific Corp.*, 682 F. Supp. 1122 (D. Colo. Oct. 30, 1987) , 682 F. Supp. 1141 (D. Colo. March 22, 1988).

⁵³ 40 C.F.R. §§ 52.21(b)(4), 51.165(a)(1)(iii), 51.166(b)(4).

⁵⁴ *U.S. v. Louisiana-Pacific Corp.*, 682 F. Supp. at 1132.

⁵⁵ U.S. EPA, NSR Workshop Manual, Prevention of Significant Deterioration and Nonattainment Area Permitting (Oct. 1990) p. A.6, *available at*: <http://www.epa.gov/ttn/nsr/gen/wkshpman.pdf>.

in PTE calculations.⁵⁶ In the absence of practically enforceable HAP limits in the final permit the Shamrock Compressor Station PTE must be calculated to exceed the 10 TPY major source PTE threshold for formaldehyde and the 25 TPY threshold for combined HAPs and must be treated as a CAA § 112 major source.

5. The Draft Permit Does not Contain the Pressure Relief Valve Requirements for VOC-Containing Storage Tanks

25 Pa. Code § 129.57 establishes pressure relieve valve requirements for VOC-containing storage tanks with capacities between 2000 and 40000 gallons. These requirements should apply to the condensate tank located at the Shamrock Station; however, the § 129.57 requirements do not appear to be listed or referenced in the draft permit.

⁵⁶ Letter from John S. Seitz, Director Stationary Source Compliance Division U.S. EPA, Guidance on Limiting Potential to Emit in New Source Permitting, (Jun. 13, 1989) pp. 18-19, *available at*: http://www.epa.gov/ttn/atw/pte/june13_89.pdf.

**Attachment 1: Table of Atlas
Resources LLC Wells Near
Shamrock Compressor Station**

#	Operator	Site Name	County	Municipality	Auth Id	Date Disposed	Other Id	Sub Fac Id	Latitude	Longitude
1	Atlas Resources LLC	not listed	Fayette	Franklin	725468	5/30/08	051-24005	969236	39.94472222	-79.73351111
2	Atlas Resources LLC	not listed	Fayette	Franklin	725464	5/30/08	051-24007	969233	39.92805556	-79.72777778
3	Atlas Resources LLC	Chess 33 og well	Fayette	Georges	814349	12/18/09	051-24285	1004224	39.83546111	-79.79855833
4	Atlas Resources LLC	Chess 34 og well	Fayette	Georges	814388	12/16/09	051-24286	1004268	39.84050000	-79.79696389
5	Atlas Resources LLC	Chess 35h og well	Fayette	Georges	814368	12/18/09	051-24287	1004262	39.84053611	-79.79697500
6	Atlas Resources LLC	Chess 36h og well	Fayette	Georges	814377	12/16/09	051-24288	1004266	39.84046944	-79.79695556
7	Atlas Resources LLC	Bobbish 4 og well	Fayette	German	780377	3/4/09	051-24190	985576	39.92570556	-79.85906389
8	Atlas Resources LLC	Croushore 10h og well	Fayette	German	848759	9/27/10	051-24392	1020455	39.90288056	-79.90873889
9	Atlas Resources LLC	Croushore 11h og well	Fayette	German	848740	9/27/10	051-24391	1020445	39.90284167	-79.90873611
10	Atlas Resources LLC	Croushore unit 12h og well	Fayette	German	848956	9/28/10	051-24393	1020530	39.90280000	-79.90873611
11	Atlas Resources LLC	JuroSCO 1 og well	Fayette	German	781642	3/13/09	051-24195	986155	39.90400833	-79.82051389
12	Atlas Resources LLC	Kirchner unit 2h og well	Fayette	German	800976	8/19/09	051-24261	996844	39.84846944	-79.87853056
13	Atlas Resources LLC	Kirchner unit 3 og well	Fayette	German	800379	7/24/09	051-24258	996530	39.84845556	-79.87856944
14	Atlas Resources LLC	Kirchner unit 4h og well	Fayette	German	800410	7/24/09	051-24259	996538	39.84844167	-79.87860833
15	Atlas Resources LLC	Kovach unit 24 og well	Fayette	German	790424	6/8/09	051-24226	990553	39.91952500	-79.84661667
16	Atlas Resources LLC	Kovach unit 34h og well	Fayette	German	790431	6/10/09	051-24225	990564	39.91952500	-79.84658889
17	Atlas Resources LLC	Macar 3 og well	Fayette	German	789212	5/14/09	051-24215	989908	39.90113611	-79.81534167
18	Atlas Resources LLC	not listed	Fayette	German	734664	9/12/08	051-24056	973533	39.82805556	-79.88738889
19	Atlas Resources LLC	not listed	Fayette	German	734699	9/15/08	051-24058	973552	39.89472222	-79.88575278
20	Atlas Resources LLC	not listed	Fayette	German	740083	9/12/08	051-24080	975981	39.87805556	-79.8599
21	Atlas Resources LLC	not listed	Fayette	German	728314	6/24/08	051-24023	970623	39.89472222	-79.85738611
22	Atlas Resources LLC	not listed	Fayette	German	727060	6/9/08	051-24009	970023	39.89472222	-79.85168889
23	Atlas Resources LLC	Giles 3 og well	Fayette	Luzerne	831142	5/7/10	051-24354	1012240	39.97642778	-79.96946667
24	Atlas Resources LLC	National Mines Corp 26h og well	Fayette	Luzerne	835570	6/7/10	051-24365	1014525	39.95401944	-79.94236111
25	Atlas Resources LLC	Fairbank Rod & Gun Club 3 og well	Fayette	Menallen	793024	6/26/09	051-24238	992311	39.94020833	-79.83576389
26	Atlas Resources LLC	Fairbank Rod & Gun Club 6 og well	Fayette	Menallen	793009	6/26/09	051-24239	992300	39.93529722	-79.84209444
27	Atlas Resources LLC	Maruszewski unit 1 og well	Fayette	Menallen	844554	9/15/10	051-24380	1018415	39.95816667	-79.77985556
28	Atlas Resources LLC	Bertovich 25 og well	Fayette	Nicholson	807336	10/21/09	051-24272	1000894	39.82718611	-79.91038056
29	Atlas Resources LLC	Filiaggi 7 og well	Fayette	Nicholson	801202	8/19/09	051-24262	997012	39.83680556	-79.87629167
30	Atlas Resources LLC	Genovese 10 og well	Fayette	Nicholson	788901	5/19/09	051-24212	989686	39.83833889	-79.88123056
31	Atlas Resources LLC	Ludrosky 3 og well	Fayette	Nicholson	810084	11/12/09	051-24277	1002275	39.81624167	-79.87666944
32	Atlas Resources LLC	Ludrosky 4 og well	Fayette	Nicholson	829889	4/28/10	051-24351	1011666	39.81995556	-79.87504167
33	Atlas Resources LLC	Yasenosky unit 4 og well	Fayette	Nicholson	789198	5/27/09	051-24216	989889	39.83935833	-79.86114444
34	Atlas Resources LLC	Cardine unit 5h og well	Fayette	Redstone	817342	1/5/10	051-24311	1005626	39.95862575	-79.84037019
35	Atlas Resources LLC	Cardine unit 6 og well	Fayette	Redstone	817365	1/5/10	051-24312	1005633	39.95859242	-79.84036742
36	Atlas Resources LLC	Cardine unit 7h og well	Fayette	Redstone	817371	1/5/10	051-24313	1005636	39.95855908	-79.84036742
37	Atlas Resources LLC	Congelio 5 og well	Fayette	Redstone	779851	3/2/09	051-24187	985325	39.98873333	-79.85416111
38	Atlas Resources LLC	Dancho/Brown 4 og well	Fayette	Redstone	756305	1/14/09	051-24152	982901	39.99125556	-79.80155833
39	Atlas Resources LLC	Dancho/Brown 5 og well	Fayette	Redstone	756306	1/14/09	051-24153	982902	39.99100278	-79.80731389

#	Operator	Site Name	County	Municipality	Auth Id	Date Disposed	Other Id	Sub Fac Id	Latitude	Longitude
40	Atlas Resources LLC	Faverio unit 4 og well	Fayette	Redstone	816280	12/24/09	051-24304	1005174	39.94831389	-79.83065556
41	Atlas Resources LLC	Faverio unit 5h og well	Fayette	Redstone	851131	11/24/10	051-24305	1005183	39.94828333	-79.83065556
42	Atlas Resources LLC	Faverio unit 5h og well	Fayette	Redstone	816303	12/29/09	051-24305	1005183	39.94828333	-79.83065556
43	Atlas Resources LLC	Faverio unit 6h og well	Fayette	Redstone	851149	11/3/10	051-24306	1005189	39.94834722	-79.83065556
44	Atlas Resources LLC	Faverio unit 6h og well	Fayette	Redstone	816315	12/29/09	051-24306	1005189	39.94834722	-79.83065556
45	Atlas Resources LLC	Grant unit 12h og well	Fayette	Redstone	842250	8/5/10	051-24378	1017502	39.93947500	-79.87652500
46	Atlas Resources LLC	Grant unit 13h og well	Fayette	Redstone	842246	8/5/10	051-24379	1017495	39.93946111	-79.87657500
47	Atlas Resources LLC	Grant unit 15h og well	Fayette	Redstone	839114	7/16/10	051-24371	1016046	39.94424444	-79.87434167
48	Atlas Resources LLC	Grant unit 16h og well	Fayette	Redstone	839132	7/16/10	051-24370	1016072	39.94424444	-79.87438611
49	Atlas Resources LLC	Jackson Farms 26 og well	Fayette	Redstone	784663	4/8/09	051-24198	987622	39.96816111	-79.81464444
50	Atlas Resources LLC	Jackson Farms 30 og well	Fayette	Redstone	791204	6/4/09	051-24229	991003	39.96908056	-79.83866111
51	Atlas Resources LLC	Jackson Farms unit 29 og well	Fayette	Redstone	790906	6/10/09	051-24227	990835	39.96868889	-79.83418056
52	Atlas Resources LLC	Jackson Farms unit 30 og well	Fayette	Redstone	831730	5/24/10	051-24359	1012543	39.96908056	-79.83866111
53	Atlas Resources LLC	Jackson Farms unit 31h og well	Fayette	Redstone	792504	6/16/09	051-24235	991889	39.96440000	-79.82388611
54	Atlas Resources LLC	Jackson Farms unit 32h og well	Fayette	Redstone	792506	6/19/09	051-24234	991892	39.96435278	-79.82382500
55	Atlas Resources LLC	Jackson Farms unit 33 og well	Fayette	Redstone	792289	6/19/09	051-24233	991748	39.96437778	-79.82385556
56	Atlas Resources LLC	Jackson Farms unit 36h og well	Fayette	Redstone	791004	6/10/09	051-24228	990901	39.96869444	-79.83422222
57	Atlas Resources LLC	Jackson Farms unit 37h og well	Fayette	Redstone	839003	6/30/10	051-24369	1015998	39.96907778	-79.83868889
58	Atlas Resources LLC	Jackson Farms unit 38h og well	Fayette	Redstone	839070	7/8/10	051-24373	1016032	39.96908056	-79.83863056
59	Atlas Resources LLC	Jackson Farms unit 39h og well	Fayette	Redstone	839105	7/8/10	051-24372	1016050	39.96908056	-79.83860278
60	Atlas Resources LLC	Keslar 10 og well	Fayette	Redstone	802663	8/11/09	051-24265	997964	39.94148056	-79.85803333
61	Atlas Resources LLC	Meese 1 og well	Fayette	Redstone	815245	12/22/09	051-24297	1004680	39.99966111	-79.88556944
62	Atlas Resources LLC	Skovran unit 26h og well	Fayette	Redstone	828135	6/28/10	051-24344	1010886	39.95431667	-79.84942778
63	Atlas Resources LLC	Skovran unit 27h og well	Fayette	Redstone	828148	6/28/10	051-24343	1010888	39.95435833	-79.84943056
64	Atlas Resources LLC	Skovran unit 28h og well	Fayette	Redstone	828127	6/28/10	051-24342	1010885	39.95440000	-79.84943056
65	Atlas Resources LLC	Skovran unit 29 og well	Fayette	Redstone	817684	2/2/10	051-24315	1005797	39.93523056	-79.85358333
66	Atlas Resources LLC	Skovran unit 30h og well	Fayette	Redstone	828157	6/21/10	051-24341	1010891	39.95444167	-79.84943333
67	Atlas Resources LLC	Skovran unit 31h og well	Fayette	Redstone	828164	6/21/10	051-24340	1010894	39.95427500	-79.84942778
68	Atlas Resources LLC	Skovran unit 32h og well	Fayette	Redstone	817686	2/2/10	051-24316	1005802	39.93524722	-79.85361944
69	Atlas Resources LLC	Skovran unit 33h og well	Fayette	Redstone	817691	2/2/10	051-24317	1005806	39.93521389	-79.85354722
70	Atlas Resources LLC	Skovran unit 34h og well	Fayette	Redstone	848319	10/6/10	051-24388	1020231	39.95448333	-79.84943333
71	Atlas Resources LLC	Skovran unit 35h og well	Fayette	Redstone	848328	10/6/10	051-24389	1020255	39.95423611	-79.84942500
72	Atlas Resources LLC	Skovran unit 36h og well	Fayette	Redstone	848343	10/6/10	051-24390	1020263	39.95419444	-79.84942500
73	Atlas Resources LLC	not listed	Fayette	Redstone	737692	9/12/08	051-24062	974880	39.91138889	-79.86317222

Attachment 4 - Basis For Oil And Gas Production Field Single Source Determinations

It is well established that Congress and EPA consider it necessary and appropriate to treat physically separated emission units, including those found in the oil and gas industries as single sources for major source determination purposes. For instance, § 112 of the Clean Air Act specifically exempts “emissions from any oil or gas exploration or production well (with its associated equipment)” from aggregation with other associated emission units for the purpose of making § 112 HAP major source determinations.¹ Section 112 does not apply to “regulated NSR pollutants” like NO_x and VOCs,² so this exemption language does not prohibit permitting authorities from aggregating oil and gas wells and associated equipment for purposes of making major source determinations for regulated NSR pollutants. In fact, because the § 112 definition of stationary source incorporates the same “building, structure, facility, or installation” language as the PSD, NNSR, and Title V permitting programs,³ the section § 112 aggregation exemption indicates that Congress intended physically separated oil and gas wells and associated equipment to be covered by the terms “building, structure, facility, or installation” in the absence of an explicit exemption. Neither the Clean Air Act nor EPA’s implementing regulations or guidance for the PSD, NNSR, or Title V programs contain such an exemption.

In the 1980 PSD preamble EPA uses an oil field as an example of an industrial activity that may be considered a single source.⁴

Numerous, EPA regional office determinations include consideration of oil or gas wells and associated equipment in Title V and PSD source determination analyses:

- EPA Region 5, Single Source Determination - Summit Petroleum Corp., (Oct.18, 2010),¹ (sour gas wells, sweetening plant, and flares—some separated by over 8 miles—“constitute a single source for purposes of permitting under Title V”).⁵
- EPA Region 8, Single Source Determinations – Florida River Compression Facility (Oct. 18, 2010), (oil and gas wells and compression facilities ultimately not a single source for Title V purposes, but oil and gas wells included in source aggregation analysis).⁶
- EPA Region 10, Permitting of Forest Oil's Kustatan and Osprey Facilities, (Aug. 21, 2001), (offshore oil platform and onshore production facility considered a single source for PSD purposes).⁷
- EPA Region 8, Source Determination - Citation Oil & Gas Corp. (Dec. 9, 1999), (In an oil and gas production field occupying “an approximate 12-mile radius . . . each tank battery with its associated emitting units (e.g. wells, pumps, line heaters, dehydration equipment, combustion equipment, tanks, etc.) comprises a ‘group of stationary sources’

¹ 42 U.S.C. § 7412(n)(4).

² 40 C.F.R. §§ 52.21(b)(50)(v).

³ 42 U.S.C. § 7412(a)(3).

⁴ 45 Fed.Reg. 52676, 52695 (Aug. 7, 1980).

⁵ Available at: <http://epa.gov/region07/air/title5/t5memos/singler5.pdf>.

⁶ Available at: <http://epa.gov/region07/air/title5/t5memos/singler8.pdf>.

⁷ Available at: <http://epa.gov/region07/air/nsr/nsrmemos/20010821.pdf>.

and would be considered a single source for purposes of determining Title V applicability.”⁸

- EPA Region 8, Source Determinations - EnerVest San Juan Operating Co. (July 8, 1999),¹ (wells, tanks, dehydrators and other associated equipment to be included in source aggregation analysis for oil and gas field.).⁹

Finally, in February of 2008, the EPA Administrator granted a Title V objection petition for the Kerr-McGee/Anadarko Petroleum Corporation, Frederick Compressor Station in Weld County, Colorado, remanding the permit to the Colorado Department of Public Health and Environment (CDPHE) with instruction to perform a more complete aggregation analysis.¹⁰ In October of 2009, the EPA Administrator granted a second Title V petition for this facility, again remanding the permit to CDPHE with instruction to perform a more complete aggregation analysis.¹¹ In Feb. 2, 2010, EPA denied a third petition again challenging the CDPHE’s most recent decision not to aggregate this facility.¹² EPA held the more thorough CDPHE source determination conducted after the Oct. 8, 2009 decision was adequate. Despite EPA’s conclusion in its most recent decision, the fact that EPA twice rejected the Frederick Compressor Station Title V permit for failure to conduct an adequate aggregation analysis clearly indicates EPA considers oil and gas production operations among the types of industrial activities where aggregation may be appropriate.

⁸ Available at: <http://epa.gov/region07/air/title5/t5memos/citation.pdf>.

⁹ Available at: <http://epa.gov/region07/air/title5/t5memos/enervest.pdf>.

¹⁰ *In re Kerr-McGee/Anadarko Petroleum Corporation, Frederick Compressor Station, Order Granting Petition for Objection to Permit*, Petition No. VIII-2007-__ (Feb. 7, 2008), available at: http://www.epa.gov/Region7/air/title5/petitiondb/petitions/anadarko_response2008.pdf.

¹¹ *In re Kerr-McGee/Anadarko Petroleum Corporation, Frederick Compressor Station, Order Granting Petition for Objection to Permit*, Petition No. VIII-2008-02 (Oct. 8, 2009), available at: http://www.epa.gov/Region7/air/title5/petitiondb/petitions/anadarko_response2008.pdf.

¹² U.S. EPA, *In re Kerr-McGee/Anadarko Petroleum Corporation, Frederick Compressor Station, Order Denying Petition for Objection to Permit*, Petition No. VIII-2010-4 (Feb. 2, 2011) available at: http://www.epa.gov/region7/air/title5/petitiondb/petitions/anadarko_response2010.pdf.