

August 22, 2020

Dear Pennsylvania DEP Environmental Quality Board,

I would like to thank DEP for proposing to strengthen guidance related to Plan Approval and Operating Exemptions, *DEPARTMENT OF ENVIRONMENTAL PROTECTION, Bureau of Air Quality, DOCUMENT NUMBER: 275-2101-003, TITLE: Air Quality Permit Exemptions, AUTHORITY: Air Pollution Control Act (APCA), 35 P.S. § 4001 et seq. and 25 Pa. Code § 127.14 (relating to exemptions).*

Protect Northern PA is a group of concerned individuals who came together this year when a facility to manufacture LNG in Wyalusing Township, Bradford County, was permitted by DEP. As we looked into trends in the LNG industry, we learned about well-mounted stationary and well-mounted mobile devices to make LNG at the well pad, as well as truck and rail transport.

Our concerns with the exemption process fall into these areas:

1. Inadequate and unrealistic Federal guidance, with respect to Pennsylvania and industry realities. Non-aggregation of onsite and adjacent equipment; no definition of mobile sources and unclear guidance as to portable equipment.
2. Insufficient promulgation of rules, potentially leading to an operation commencing before engaging with DEP.
3. Inability of the public to view RFD determinations on the DEP website.
4. Inability of the public to see the market purpose (industry/product) of “gas-processing” facilities.
5. Lack of any Act 13 impact fee compensation to counties bearing impacts of pipelines and gas-processing facilities, when the counties are not the source of the fracked gas.
6. No consideration of boil-off gasses (BOG) from LNG transport.
7. Lack of an environmental assessment to consider safety hazards of LNG being transported to market.

1. Inadequate and unrealistic Federal guidance, with respect to PA and industry realities; non-aggregation of onsite and adjacent equipment; no definition of “mobile sources”; and unclear guidance as to portable equipment.

To figure the emissions of a gas-processing plant, DEP makes an accounting of the emissions from each machine and totals these (taking into consideration control technologies).

New Source Review (NSR) and title V programs in the Clean Air Act (CAA or Act) (1)

For sources in the oil and natural gas sector, this rule clarifies the meaning of the term “adjacent” that is used to determine the scope of a “stationary source” for purposes of the Prevention of Significant Deterioration (PSD) and Nonattainment NSR (NNSR) preconstruction permitting programs and the scope of a “major source” in the title V operating permit program in the onshore oil and natural gas sector.

The revised definitions are based on the proximity of emitting activities and consideration of whether the activities share equipment. We believe that this clarification will provide greater certainty for the regulated community and for permitting authorities.

II. Background for Final Rulemaking: This action affects the determination of what constitutes a “stationary source” for the PSD and NNSR preconstruction permit programs under title I of the

CAA, and the determination of what constitutes a “major source” for the title V operating permit program. Under the PSD and NNSR programs, a “stationary source” is defined as a “building, structure, facility, or installation” that emits or may emit a “regulated NSR pollutant.”

The rules go on to say that:

Building, structure, facility, or installation means 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 two-digit code) as described in the Standard Industrial Classification Manual, 1972, as amended by the 1977 Supplement (U.S. Government Printing Office stock numbers 4101–0065 and 003–005–00176–0, respectively).

We see DEP’s approach to exception is modeled after the federal.

- Facility, as defined in 25 Pa. Code Section 121.1, is “An air contamination source or a combination of air contamination sources located on one or more contiguous or adjacent properties and which is owned or operated by the same person under common control”.
- Facilities with different standard industrial codes (SIC) are not aggregated at a site and are not considered a part of 38(c). *Oil and gas exploration, development, and production facilities and associated equipment and operations.*

We recently inquired about one exempt facility. Edge Gathering Virtual Pipelines 2, LLC (Edge) is located at the Exco Resources (PA), LLC (Exco) Chaapel Hollow Hunt Club Well Pad #1 located in Gamble Township, Lycoming County. (2) Edge is exempt by reason of request for determination (RFD), completed April 27, 2020. We see DEP’s application of the above guidelines: A well-top LNG processor was exempted due to meeting the following criteria: different industrial code; different common control (Tax ID Number) and transfer of the ownership of the gas; emissions below the threshold for a separate facility. We were pleased to see that DEP did figure aggregated emissions of both exempt and nonexempt operations at a site. Therefore, we are not implying that DEP has used exemption to allow harmful air emissions at a particular site. Rather, we take issue with the inability of current regulations to *require* aggregation sources at a site.

Issues and Recommendations

It is unrealistic in Pennsylvania to apply the federal definition of a *facility*: activities that are of the same *industrial grouping* and *under the control of the same person*. This definition amounts to having no air quality regulations at all. Is DEP allowed to be more strict than federal? With the high concentration of gas-related activities in some parts of Pennsylvania, these federal definitions amount to big loopholes that leave the public exposed to worsening air quality.

- Having more than one industrial grouping does not reduce combined air emissions from a site or contiguous sites. There are different SIC codes for gas production (well pad activities), as opposed to production and distribution. At a site or contiguous sites, one might find a well pad, compressor, pipeline, LNG processor, storage tanks and truck-loading operation. In terms of the air quality in the neighborhood, these are one facility. But, the differences in SIC codes precludes aggregating fracking production with LNG-based distribution or pipelines. We see no

common-sense basis for segregating emitting sources at the same site on the basis of industrial code.

- Companies can and do readily form subsidiaries and informal partnerships to limit the reach of regulations. The fact of different persons (companies) operating at a site or contiguous sites does not reduce combined air emissions. Say, one company is there operating a well pad and another company comes to that well pad with a LNG processing apparatus: The LNG unit is there to get the well pad's gas to market. The two companies are an integrated business arrangement. Perhaps DEP can develop a workaround to this federal loophole by requiring that articles of incorporation be drawn up to treat the different persons as one company.

Whereas DEP could make a site-specific determination for exemption of a gas-processing facility at one well pad, what happens when exempt operations proliferate in a given geographic area? The single-company-is-a-single-source does not account for increased emissions from each well pad, where each well pad includes operations related to distribution such as LNG operations and pipelines. Edge Gathering Virtual Pipelines 2, according to the company website, anticipates expanding its business model with the deployment of additional "cryobox" liquefaction units. (3)

Mobile sources: We see that PA DEP's 275-2101-003, *TITLE: Air Quality Permit Exemptions* refers to and exempts "mobile sources". No definition is present for mobile sources. We looked in the federal *New Source Review (NSR) and title V programs in the Clean Air Act (CAA or Act)* (1) but still could not find a definition of mobile sources. We do see in this federal guidance reference to "installation": *Under the PSD and NNSR programs, a "stationary source" is defined as a "building, structure, facility, or installation" that emits or may emit a "regulated NSR pollutant."*

The industry will commonly move equipment from well pad to well pad. Portable equipment can include well-mounted gas-to-CNG/LNG processors, well-mounted compressors, LNG truck-loading equipment, and storage tanks. Thus, we recommend that DEP's definition of *mobile sources* not include portable equipment, because while being used at a well pad it is an "installation."

2. Insufficient promulgation of rules, potentially leading to an operation commencing before engaging with DEP.

We pulled up DEP's form for requesting the RFD. It appears to leave it up to the operator to determine the need to engage with DEP.

Who Must Submit an RFD. The owner/operator of a facility does not need to submit an RFD Form when a source is listed in the Air Quality Permit Exemptions List (Document No. 275-2101-003) and meets conditions or thresholds specified for that source. In instances where an exemption is not clear based on the regulations or the owner/operator wishes to have clarification or documentation, they may request the exemption through the RFD process which is handled on a case-by-case basis. Requests for exemptions from the Plan Approval or Operating Permit requirements of Chapter 127 for multiple sources or non-listed sources are determined on a case-by-case basis through the RFD process.

In the proposed exemption regulations (*Air Quality Permit Exemptions, AUTHORITY: Air Pollution Control Act (APCA), 35 P.S. § 4001 et seq. and 25 Pa. Code § 127.14*), we cannot find mention of "LNG".

Upon reading industry news (4) about Frontier Natural Resources' wellsite LNG operations, we inquired and learned from DEP that DEP is aware of a small mobile LNG project in West Keating Township on the Winner Pad, (5) but that the Northcentral Region AQ Program has not received a Request for Determination (RFD) regarding this activity.

Issues and Recommendations:

Why would a LNG operation in West Keating Township or anywhere be operating without first engaging with DEP? We recommend that DEP get out ahead of the LNG industry to update regulations to assume that LNG could go anywhere and require that all operations for any LNG production request a RFD, so that the RFD precedes the set-up of the operation. There should not be uncertainty by industry or by DEP (or by the public) as to whether these operations are regulated.

Operations may be producing a small amount or a large amount of LNG. When is a threshold crossed?

Section 127.14(a)(8) Exemptions that do not require the submission of an RFD form, lists various storage tanks and capacities. Given the unique properties of LNG, we recommend that the guidance be updated, to be clear about the requirements for a RFD. For example, the REV LNG facility has three 60,000-gallon LNG storage tanks for a total of 180,000 gallons, according to its website. (6) However, in eFACTS, we do not see a Storage Tank Registration/Permitting authorization. Is this because of exemption or oversight or is the web information incorrect? Are regulatory processes catching up to well-pad LNG operations? We, the public can't be sure the regulations, if applicable, have been applied.

3. Inability of the public to view RFD determinations on the DEP website

A DEP Community Relations Coordinator confirmed for us that exempt facilities do not appear in eFACTS. DEP in the Northcentral office was very accommodating of our request to see the RFD documents related to Edge Gathering Virtual Pipeline 2.

Issues and Recommendations:

We would prefer to be self-sufficient and have the ability to pull up RFD requests and determinations ourselves on the DEP website. A simple page of RFD correspondence could be set up that is searchable by county.

There are other concerns with gas operations other than those that DEP regulates. DEP does not regulate noise or traffic. The public, when experiencing noise, traffic, and other hazards that DEP does not regulate, needs to be able to pull up a list of activities in an area.

4. Inability of the public to see the market purpose (industry/product) of "gas-processing" facilities.

A source says that DEP estimates that there are ten natural gas processing facilities. (7)

DEP estimates there are approximately 435 midstream compressor stations, 120 transmission compressor stations and 10 natural gas processing facilities whose owners and operators may be subject to the proposed VOC emission reduction measures, work practice standards, and reporting and recordkeeping requirements.

The definition of a "gas processing" plant (25 PA. CODE CHS. 121 AND 129, Control of VOC Emissions from Oil and Natural Gas Sources, E. Summary of Regulatory Requirements, § 121.1. Definitions) does not seem to recognize LNG. *Natural gas processing plant or gas plant—*

(i) A processing site engaged in the extraction of natural gas liquids from field gas, fractionation of mixed natural gas liquids to natural gas products, or both. (ii) The term does not include a Joule-Thompson valve, a dew point depression valve or an isolated or standalone Joule-Thompson skid.

Currently, eFACTS obscures the nature of the facility with broad terminology such as Gas Processing, Minor Source Operating Permit, Major Facility Plan Approval, Minor Facility Plan Approval, New Source Performance Std, Storage Tank Registration/Permitting, AQ General Permit.

We are aware that air emissions are calculated based on the expected emissions for each component machine and control device. But what is obscured from public view is the volume of input (gas) and/or output (e.g., LNG). One must search industry websites or find articles in the press to see the size of an operation.

Although DEP is moving to electronic permits, Air Quality permitting does not appear to have a *public permit preview* in eFACTS.

It is a problem that Air Quality permitting is not disclosed in the Pennsylvania Bulletin until the step of *intent to issue the permit*, at which time the public has 30 days to comment prior to permitting. One can subscribe to eFACTS, but the links provided do not describe the facility or give a *Public Permit Preview*.

Issues and Recommendations:

- The public does not have a way, in eFACTS, to bring up a list of what DEP has classified as a natural gas processing plant or compressor station. This is a limitation in eFACTS that needs correction.
- Now that we have manufacturers of LNG, plastic components (ethane crackers), electricity (gas-fired power plants) and (soon) manufacturers of methanol and fertilizer components, the public deserves to be able to see in eFACTS what the Air Quality permit is for. Current terminology may work for DEP as it looks at air emissions compliance with federal and state regulations. However, these terms do not work for the public who deserve to know the nature of the activity creating emissions in a geographic area, and the size of the operation. Additional searchable fields in eFACTS as to the type of facility would be welcomed. Additional fields would also allow the public to use eNOTICES in a more informed way.

5. Lack of any Act 13 impact fee compensation to counties bearing impacts of pipelines and gas processing facility safety hazards and traffic.

Communities in which gas-processing facilities are located and the communities through which gas-derived products are hauled receive no Act 13 impact fees.

Only the “host community” negotiates payments from the facility, and sometimes not even they get anything.

A growing number of communities will bear the harmful impact of gas-processing, especially, with the recent passage of Act 66, whether these impacts be air pollution, traffic congestion, traffic pollution, safety hazards, expenses for emergency response preparation, etc.

Issue and Recommendations

Just as DEP collects records of gas output from wells (for purposes of Act 14 impact payments), there can be a public record of pipeline input to a facility and product output, matched with payments to impacted communities.

6. No consideration of boil-off gasses (BOG) from LNG truck and rail transport

Methane boil off gasses (BOG) are emitted during the transport of LNG, en route to destination. (8)

Players in the overland transport of LNG in northern Pennsylvania already include the following:

New Fortress Energy LLC, dba Bradford County Real-Estate Partners LLC, has plans to make 3.5 to 4 million gallons per day of LNG and move it by rail overland to a port in New Jersey, for export to foreign markets. As a LNG-for-export plan, this facility is the first of its kind to manufacture LNG in the Marcellus region and transport it overland via tanker truck or rail. The route could be 180 to 200 miles. (Note: The project has not yet commenced shipping LNG) (9)

UGI Energy Services makes 120,000 gallons per day of LNG in Mehoopany. (10, 11)
UGI maintains storage tanks in Bethlehem and Steelton. (12)

Edge Gathering Virtual Pipelines 2, LLC (Edge) located at the Exco Resources (PA), LLC (Exco) Chaapel Hollow Hunt Club Well Pad #1 located in Gamble Township, Lycoming County, includes LNG production units and storage containers. Edge is exempt by reason of request for determination (RFD), completed April 27, 2020. We estimate the volumes of LNG at around 23,000 gallons per day, based on DEP's RFD review. (13)

REV LNG of REV LNG SSL BC, using **Niche LNG** (approved for a Minor Facility Plan Approval New Source Performance Std) (14) makes 50,000 gallons per day and includes a truck-loading facility, according to the company. (6)

Frontier Natural Resources (15) is either operational or is gearing up for the Pennsylvania LNG operations with truck transport. Volumes of LNG are unknown because the company has not yet applied for a RFD. According to the company website on August 18, 2020, "We are pioneers in the innovative field of Liquefied Natural Gas (LNG). Our knowledge enables us to produce LNG from resources that have been previously unfeasible and therefore we can provide LNG locally at affordable prices."(4)

Issues and Recommendations:

Section 127.14(a) Exemptions that do not require the submission of an RFD form, lists "Mobile sources." A definition of mobile sources is not listed. We also cannot find a definition in [25 PA. CODE CHS. 121 AND 129], *Control of VOC Emissions from Oil and Natural Gas Sources, E. Summary of Regulatory Requirements, § 121.1. Definitions.*

Should we presume that by *mobile source*, the regulations are referring to combustion engines used for transportation? We are aware that other programs are looking at reducing emissions from the transportation sector.

The hauling of LNG creates a mobile source of boil-off gasses (BOG) in rail or truck transit. The container/package companies know the methane leakage rate from their containers. Someone in the LNG shipping business should be able to calculate the total leakage over time from the volume, trip duration, temperature, whether the BOG are captured and regassified, and other factors.

For stationary facilities, DEP requires capture and recirculation of BOG. Why not from mobile sources? BOG of mobile sources can be calculated and brought under regulation. There appear to be no regulations currently looking at this. With Pennsylvania about to be the locus of the overland LNG transport industry, DEP must develop suitable regulations to control BOG.

7. Lack of an environmental assessment to consider safety hazards of LNG being transported to market

- LNG, when spilled or leaked, regassifies and forms a vapor cloud that mixes with oxygen in the air. Upon encountering an ignition source, an explosion can reach 1-2 miles from the site of the spill, depending on vapor cloud movement. Neither rail transport nor truck transport of LNG has been studied for its safety.
- Federal Rulemaking for LNG transport by rail, completed in June 2020, requires route analysis and specifies container/"package", standards. (16)
- The Federal Motor Carrier Association (Title 49 Transportation, part 100-177 and 178-179, requires carrier registration, but does not specify the route. (17, 18)
- The Pennsylvania PUC has no jurisdiction over interstate trucking of hazardous materials.
- Hazardous truck traffic volumes, estimated from LNG volumes at 10,000 gallons per tanker are as follows: New Fortress Energy: 360 trucks or 100 rail cars daily. UGI: 12 trucks per day. REV-Niche: 5 trucks per day. Edge: 2+ trucks per day; Frontier: Unknown quantity of LNG. We have seen LNG trucks moving through the Clarks Summit business district and Interstate 81.

Issues and Recommendations:

Public safety cannot be omitted from DEP's permitting of LNG operations, as it is currently. Movement of this hazardous material must become part of the permitting process. Both the container, route, and community first responder equipping and training must be part of any permit. As it does for Municipal Waste Landfills, DEP's permitting processes for LNG operations must include an environmental assessment to include route analysis. If the federal government can require route analysis for LNG movement by rail, and if Pennsylvania can require route analysis of municipal waste brought from out-of-state locations, then Pennsylvania surely can, and must, require route analysis for the transportation of LNG on state roads. The State Police need to be equipped with procedures for the regulation of LNG-hauling trucks. Should convoying be allowed? Would 15 filled tankers leaving Wyalusing Township per hour form a convoy at some point on their journey?

Thank you for receiving our comments.

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