



GROUP AGAINST SMOG & POLLUTION

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August 20, 2012

VIA EMAIL

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

**Re: Group Against Smog and Pollution (GASP) and Clean Air Council Comments
Regarding the Peoples Natural Gas Company, LLC's Laurel Ridge/Rager Mountain
Compressor Station (PA-11-00356C)**

Dear Mr. Binder,

Please accept these comments regarding Plan Approval PA-11-00356C for Peoples Natural Gas Company, LLC's Laurel Ridge/Rager Mountain Compressor Station located in Jackson Township, Cambria County (noticed on Saturday, July 21, 2012 at 42 Pa.B. 4590) on behalf of the Group Against Smog and Pollution (GASP) and Clean Air Council.

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

Sincerely,

Lauren M. Burge, Esq.
Staff Attorney
Group Against Smog and Pollution

Joseph Otis Minott, Esq.
Executive Director
Clean Air Council

**GROUP AGAINST SMOG AND POLLUTION (GASP) AND CLEAN AIR COUNCIL
COMMENTS REGARDING PEOPLES NATURAL GAS COMPANY, LLC'S LAUREL
RIDGE/RAGER MOUNTAIN COMPRESSOR STATION (PA-11-00356C)**

I. The Laurel Ridge/Rager Mountain Facility Likely Violates the 1-Hour NO₂ National Ambient Air Quality Standard.

Operation of the Laurel Ridge/Rager Mountain (LRRM) facility will likely result in exceedances of the 1-hour NO₂ standard of 100 parts per billion. The 1-hour standard was set in 2010 in order to protect human health from NO₂ emissions with an adequate margin of safety.¹ It is based on “the 3-year average of the 98th percentile of the yearly distribution of 1-hour daily maximum concentrations.”² This standard is relatively new, and likely has not yet been considered in relation to this facility. Because large NO_x emissions from this facility will likely result in exceedances of the 1-hour standard, DEP cannot issue this plan approval until those violations have been addressed.

A. LRRM's NO_x emissions likely violate the 1-hour NAAQS.

LRRM is a relatively large source of NO_x, primarily due to emissions from aging compressor engines. While the two new engines (Rager Engines #4 and #5) will only add a combined total of 5.72 tons per year of NO_x to LRRM's potential to emit, its total potential to emit is still fairly large at 277.64 tpy.³ The older engines at this facility emit significantly greater quantities of NO_x than the new engines; for example, Rager Engines #1-#3 each emit 63.30 tpy of NO_x, compared to 2.86 tpy of NO_x for the new Rager Engines #4 and #5.

Air dispersion modeling performed at other compressor stations with relatively old engines has predicted violations of the 1-hour NO₂ standard, due to the combination of significant NO_x emissions and relatively short exhaust stacks.⁴ The 1-hour standard is likely violated here as well. Modeling must be conducted, either by Peoples Natural Gas or by the Department, in order to confirm whether exceedances will occur, and any violations must be addressed before this plan approval can be issued.

B. The Department is forbidden from issuing the plan approval until it is shown that LRRM complies with the 1-hour NO₂ standard.

The Department cannot issue this plan approval unless it is first demonstrated that the source will not violate the 1-hour NO₂ NAAQS. 25 Pa. Code § 127.12(a)(4) requires that a plan

¹ 75 Fed. Reg. 6,474 (Feb. 9, 2010).

² *Id.*

³ See Review of Plan Approval Application memo for Laurel Ridge/Rager Mountain Compressor Station, Table 8: Existing and Proposed Facility PTE, at 13 (June 26, 2012).

⁴ See Attachment A1 and A2 – GASP Comments on the Texas Eastern Transmission Holbrook Compressor Station, and attachment detailing NO_x AERSCREEN modeling for Holbrook using “grassland” setting; Attachment B – Letter from Francis J. Milfeit, Peoples Natural Gas Company, LLC, to Ronald Huffman, Allegheny County Health Department Air Quality Program, Re: Dice Compressor Station Letter of Intent (June 25, 2012).

approval application demonstrate that a source will comply with Pennsylvania air quality regulations and the federal Clean Air Act. Additionally, an application must show that the facility “will not prevent or adversely affect the attainment or maintenance of ambient air quality standards when requested by the Department.”⁵ The Department is required to deny the plan approval if it is “determined that the source is likely to cause air pollution or to violate the act, the Clean Air Act or the regulations promulgated under the act or the Clean Air Act applicable to the source.”⁶

Peoples Natural Gas has not demonstrated in its application that LRRM will operate in compliance with the 1-hour NO₂ standard. The Department has the duty to either request that the company show that it will be able to comply, or make its own determination as to whether compliance with the standard will occur. If it is not first demonstrated that the 1-hour standard will be met, the Department cannot issue this plan approval because this would clearly cause “air pollution” and would violate the Clean Air Act.

II. VOC Emissions from Storage Tanks are Underestimated.

The Applicant has provided condensate storage tank emission estimates based on the assumption that #2 fuel oil provides “a conservative surrogate for produced fluids in the TANKS runs.”⁷ The EPA TANKs entry for #2 fuel oil assumes a vapor pressure of 0.0049 psia.⁸ However, condensate vapor pressure is typically far higher,⁹ and produced water vapor pressure may exceed 0.0049 psia as well.¹⁰

PTE calculations are to err on the side of overestimating emissions. “Potential to emit means the *maximum* capacity of a stationary source to emit any air pollutant under its physical and operational design.”¹¹ PTE is to be based on “worst case” emissions, “the dirtiest fuels, and/or the highest emitting materials and operating conditions that the source is or will be permitted to use,”¹² and should take into account emissions from startups, shutdowns and malfunctions.¹³

⁵ 25 Pa. Code § 127.12(a)(6).

⁶ 25 Pa. Code § 127.13b(a)(1).

⁷ Memo from Tracey Moore, URS Corporation, at 2, attached to Peoples Natural Gas, Response to Technical Incomplete Notice Plan Approval Application 11-00356C (June 7, 2011).

⁸ TANKs. V 4.0.9d.

⁹ See, e.g., ConocoPhillips, Condensate MSDS, at 6, available at

http://www.conocophillips.com/EN/products/safetydata/Documents/MSDS%20Canada/775184%20Sweet%20Condensate%20_Canada_.pdf.

¹⁰ See, e.g., Devon, Produced Water MSDS, at 4, available at

[http://www.devonenergy.com/CorpResp/ehs/Documents/msds/DVN%20MSDS%20NA%20-%20Produced%20water%20\(sweet\).pdf](http://www.devonenergy.com/CorpResp/ehs/Documents/msds/DVN%20MSDS%20NA%20-%20Produced%20water%20(sweet).pdf);

Encana, Produced Water MSDS at 1, available at

<http://www.encana.com/pdf/business/contractors/msds/produced-water-sweet-crude-deep-gas.pdf>.

¹¹ 40 CFR § 70.2 [emphasis added]; 40 CFR. §§ 52.21(b)(4), 51.165(a)(1)(iii), 51.166(b)(4); 25 Pa.Code § 121.1 – definition of potential to emit.

¹² U.S. EPA, NSR Workshop manual p. A.19, available at <http://www.epa.gov/ttn/nsr/gen/wkshpman.pdf>.

¹³ Letter from Steven Riva, USEPA Region 2, to NJDEP, *Accounting for Emergency Generators in the Estimate of Potential to Emit* (Feb. 14, 2006), at 2, available at <http://www.epa.gov/region7/air/nsr/nsrmemos/generator.pdf>.

In keeping with the typical range of condensate and produced water vapor pressures and the need to ensure that PTE calculations are truly conservative, condensate and produced water storage tank PTE calculations typically assume much higher vapor pressures (e.g. ~1–1.5 psi for produced water,¹⁴ ~6–7 psia for condensate).¹⁵ Using the same TANKs inputs but substituting gasoline RVP 13 (a liquid with a vapor pressure of 5.9616 psia – more consistent with natural gas condensate) for #2 fuel oil results in storage tank emissions of 1739.47 lbs/yr,¹⁶ significantly higher than the Applicant’s estimate of 1.78 lbs/yr. Unless the Applicant can provide representative analyses of the produced water and condensate stored at the facility to justify their use of #2 fuel oil in their PTE calculations, the storage tank PTE must be increased to account for the significantly higher vapor pressure of typical produced water and condensate.

III. Applicant has Failed to Account for VOC Emissions from Condensate and Produced Water Truck Loadout.

The Applicant has failed to account for VOC emissions from condensate and produced water truck loadout. VOC emissions from truck loading can be significant.¹⁷ The Applicant must account for VOC emissions from truck loading. AP-42 provides a straightforward calculation method that should be employed for this facility.¹⁸

¹⁴ Attachment C – Facility emissions calculations from Keystone Midstream Services, LLC Bluestone Compressor Station Plan Approval Application (Dec. 27, 2010), at 16; Attachment D – Facility emissions calculations, from Laurel Mountain Midstream, LLC, Shamrock Compressor Station Plan Approval Application (Nov. 2, 2011), at 13.

¹⁵ Attachment E – Tank emissions calculations for Atlas Deemston (Nov. 28, 2010).

¹⁶ Attachment F – TANKs runs for Laurel Ridge/Rager assuming gasoline RVP 13.

¹⁷ Attachment D, *supra* note 14, at 13; Attachment C, *supra* note 14, at 16.

¹⁸ EPA AP-42, Chapter 5.2.