



GROUP AGAINST SMOG & POLLUTION

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March 20, 2017

VIA U.S. Mail and e-Mail (jparihar@pa.gov)

Jesse S. Parihar, Air Quality Engineering Specialist
Pennsylvania Department of Environmental Protection
Southwest Regional Office
400 Waterfront Drive
Pittsburgh, PA 15222

Re: Proposed Revision to the State Implementation Plan
for Oxides of Nitrogen, Volatile Organic Compounds;
Reasonably Available Control Technology Plan for
Lilly Compressor Station (#11-00258)
Cresson Township, Cambria County

Dear Mr. Parihar:

Please accept these comments regarding the proposed revision to Pennsylvania's State Implementation Plan for Oxides and Nitrogen and Volatile Organic Compounds concerning the Reasonably Available Control Technology determination for the Lilly Compressor Station in Cresson Township, Cambria County, which I am submitting on behalf of the Group Against Smog and Pollution. According to the notice published in the Pennsylvania Bulletin on February 18, 2017, the Pennsylvania Department of Environmental Protection is accepting comments on the determination through March 20, 2017.

Thank you for your consideration of these comments. If you have any questions regarding them, please email (john@gasp-pgh.org) or call (412-924-0604 x 202) me.

Very truly yours,

/s

John K. Baillie

**COMMENTS OF THE GROUP AGAINST SMOG AND POLLUTION
REGARDING THE PROPOSED REVISION TO PENNSYLVANIA'S STATE
IMPLEMENTATION PLAN CONCERNING REASONABLY AVAILABLE CONTROL
TECHONOLOGY FOR THE LILLY COMPRESSOR STATION
(PERMIT # 11-00258)**

I. MAJOR SOURCES OF NO_x AND VOCs IN PENNSYLVANIA MUST IMPLEMENT RACT

Pennsylvania is included in the Ozone Transport Region created by Section 184(a) of the Clean Air Act.¹ Consequently, stationary sources in Pennsylvania with the potential to emit at least 50 tons per year of volatile organic compounds (“VOCs”) or 100 tons per year of oxides of nitrogen (“NO_x”) are subject to the Clean Air Act’s requirements for major stationary sources in areas classified as moderate nonattainment of the National Ambient Air Quality Standards (“NAAQS”) for ozone,² including the requirement that such sources implement “reasonably available control technology” (“RACT”).³ Under Pennsylvania law, RACT is “[t]he lowest emission limit for VOCs or NO_x that a particular source is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility.”⁴

The NAAQS for ozone were revised in 2008.⁵ EPA’s Final Rule implementing the 2008 NAAQS for ozone required states in the Ozone Transport Region to submit revisions to their State Implementation Plans to include revised RACT determinations for major sources of NO_x and VOCs by July 20, 2014.⁶ RACT requirements for the 2008 ozone NAAQS were to have been implemented by January 1, 2017.⁷

¹ See 42 U.S.C. § 7511c(a).

² 42 U.S.C. § 7511c(a)(2) (imposing requirements on major stationary sources of VOCs); 42 U.S.C. § 7511a(f)(1) (imposing requirements on major stationary sources of NO_x).

³ 42 U.S.C. § 7511a(b)(2)(C); see 40 C.F.R. § 51.912(a) (imposing a RACT requirement under the 2008 NAAQS for ozone).

⁴ 25 Pa. Code § 121.1.

⁵ National Ambient Air Quality Standards for Ozone, 73 Fed. Reg. 16436 (March 27, 2008).

⁶ See 40 C.F.R. § 51.1116(b).

⁷ See Implementation of the 2008 National Ambient Air Quality Standards for Ozone; State Implementation Plan Requirements; Final Rule, 80 Fed. Reg. 12264, 12280 (March 6, 2015) (explaining 40 C.F.R. § 51.1116(b)(2)).

II. THE DEPARTMENT'S RACT DETERMINATIONS FOR THE GE FRAME 5 AND DC 990 TURBINES AT THE LILLY COMPRESSOR STATION DOES NOT REDUCE THE ANNUAL EMISSION LIMITS FOR THOSE SOURCES

There are five sources of NO_x and/or VOCs at the Lilly Compressor Station: two Westinghouse 52 turbines, each rated at 6,040 horsepower (“hp”); a General Electric Frame 5 turbine rated at 19,800 hp (the “GE Frame 5”); a Dresser Rand DC 990 turbine rated at 5,800 hp (the “DC 990”); and an emergency engine. Each of those sources has the potential to emit at least 100 tons of NO_x per year. Accordingly, the Department must determine what controls and measures must be implemented for each of the sources to satisfy the RACT requirement.

The Department's RACT determination for the Lilly Compressor Station appears to reduce emission limits on NO_x emissions from the Westinghouse 52 turbines, so that they each will be subject to an annual emission limit of 107 tons,⁸ down from the 162 ton annual limit in the last revision of the Lilly Compressor Station's Title V Operating Permit.⁹ The Department's RACT determination appears to retain the GE Frame 5's existing NO_x emissions limits: the Department's notice in the February 18, 2017 Pennsylvania Bulletin states that “Alternative RACT” for the GE Frame 5 will be an emission limit of 292 tons per year of NO_x,¹⁰ which is the same as the annual NO_x emission limit in the last revision of the Lilly Compressor Station's Title V Operating Permit.¹¹ The Department's RACT determination also appears to retain the DC 990's existing NO_x emissions limits: the Department's notice in the February 18, 2017 Pennsylvania Bulletin states that “Presumptive RACT” for the DC 990 will be an emission limit of 116 tons per year of NO_x,¹² which is the same as the annual NO_x emission limit in the last revision of the Lilly Compressor Station's Title V Operating Permit.¹³ Although the annual NO_x emission limitation for the DC 990 purportedly would remain unchanged by the Department's

⁸ 47 Pa. Bull. 1023 (Feb. 18, 2017).

⁹ TVOP 11-00258, at 21 and 23 (Rev. March 8, 2010), available at <http://gasp-pgh.org/projects/air-permits/cambria-county-air-permits/>.

¹⁰ 47 Pa. Bull. 1023 (Feb. 18, 2017)

¹¹ See TVOP 11-00258, at 25.

¹² 47 Pa. Bull. 1023 (Feb. 18, 2017).

¹³ See TVOP 11-00258, at 27.

RACT determination, the allowable rate of NO_x emissions from that source purportedly would be reduced from 180 ppmvd to 150 ppmvd.¹⁴

III. THE DEPARTMENT CANNOT AUTHORIZE ALTERNATIVE RACT FOR THE GE FRAME 5 WITHOUT REQUIRING COMPLIANCE WITH THE APPLICABLE PRESUMPTIVE RACT EMISSION LIMITATIONS WITHIN THREE YEARS

25 Pa. Code § 129.97(g)(2) establishes a presumptive NO_x RACT emission limitation of 42 ppmvd @ 15% O₂ for natural-gas fired turbines rated at 19,800 horsepower.¹⁵ Sources that are unable to meet an applicable presumptive RACT emission limitation “without installation of an air cleaning device” may be eligible to operate under an alternative compliance schedule pursuant to 25 Pa. Code § 129.97(k):

The owner or operator of a major NO_x emitting facility or a major VOC emitting facility subject to § 129.96 that includes an air contamination source subject to one or more of subsections (b) - (h) that cannot meet the applicable presumptive RACT requirement or RACT emission limitation without installation of an air cleaning device may submit a petition, in writing, requesting an alternative compliance schedule in accordance with [§ 129.97(k)(i) – (v)].¹⁶

However, to be eligible for such an alternative compliance schedule, a source’s operator must (among other requirements) propose to achieve compliance with the applicable RACT requirement or emission limitation “as soon as possible but not later than 3 years after” the Department approves the alternative compliance schedule.¹⁷ Chapter 129 does not authorize the Department to grant waivers from applicable presumptive RACT requirements that are established by § 129.97, except as specified in 25 Pa. Code § 129.97(k) - (m).

The alternative RACT requirement imposed on the GE Frame 5 would violate § 129.97(k)(v) because it does not require the GE Frame 5 to comply with presumption NO_x RACT emission limits within three years of the Department’s approval of an alternative

¹⁴ Compare *id.* (imposing a NO_x emission limitation of 180 ppmvd on the DC 990) with 47 Pa. Bull. 1023 (requiring the DC 990 to comply with the presumptive NO_x RACT limitation of 150 ppmvd).

¹⁵ See 25 Pa. Code §§ 129.97(g)(2)(i)(A) (combined cycle turbines rated between 1,000 hp and 180 MW) and 129.97(g)(2)(iv)(A) (simple cycle and regenerative turbines rated higher than 6,000 hp).

¹⁶ 25 Pa. Code § 129.97(k).

¹⁷ 25 Pa. Code § 129.97(k)(2)(v).

compliance schedule for the GE Frame 5 as the regulation requires. The Department's RACT determination retains the same annual emissions limit (and, in the apparent absence of any other operating restrictions, presumably the same 120 ppmvd limit on NO_x emissions), and would allow the GE Frame 5 to operate subject to that limit until January 1, 2024.¹⁸ Indeed, the GE Frame 5 may never be required to comply with the applicable presumptive RACT emission limitation established by § 129.97(g).

Accordingly, the Department should revise its RACT determination for the Lilly Compressor Station to require that the GE Frame 5 comply with the applicable presumptive RACT emission limitation of 42 ppmvd NO_x within three years as required by § 129.97(k)(v).

IV. THE ANNUAL NO_x EMISSION LIMIT FOR THE DC 990 SHOULD BE REDUCED TO REFLECT THE DC 990'S COMPLIANCE WITH THE PRESUMPTIVE NO_x RACT LIMITATION OF 150 PPMVD

The Department's RACT determination for the DC 990 purportedly would retain the annual NO_x emission limit of 116 tons that is imposed by the most recent revision to the Lilly Compressor Station's Title V Operating Permit, but would also reduce the rate of allowable NO_x emissions by the DC 990 from 180 to 150 ppmvd.¹⁹ This creates an apparent discrepancy: a 16.6% reduction in the allowable instantaneous rate of NO_x emissions by a unit that is not subject to hours or throughput restrictions should trigger a similar reduction in the annual NO_x emission limit for the unit. The Department should resolve this apparent discrepancy by reducing the DC 990's annual NO_x emission limit to accurately reflect the source's compliance with the presumptive RACT limitation of 150 ppmvd NO_x @ 15% O₂.

¹⁸ See 47 Pa. Bull. 1023 (Feb. 17, 2017). Presumably, January 1, 2024 will be more than three years after the Department finally approves an alternative compliance schedule for the GE Frame 5.

¹⁹ Compare *id.* (requiring the DC 990 to comply with the presumptive NO_x RACT limitation of 150 ppmvd) with TVOP # 11-00258 (imposing a NO_x emission limitation of 180 ppmvd on the DC 990).