

Blue Ridge Environmental Defense League

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RE: Buckingham Compressor Station (ACP-2) Atlantic Coast Pipeline, LLC; Registration No. 21599

On behalf of the Blue Ridge Environmental Defense League, our chapter Concern for the New Generation in Buckingham County and all our members in Virginia, I write to provide comments against the granting of an air permit application for the proposed Buckingham Compressor Station.

Background

On September 16, 2015, Atlantic Coast Pipeline, LLC (“ACP”) submitted the first in a series of applications to the Virginia Department of Environmental Quality (“DEQ”) to construct and operate a compressor station to be located on the route of the proposed Atlantic Coast Pipeline in Buckingham County, Virginia. On May 25, 2018 a major update was submitted. The DEQ deemed the application complete on July 13, 2018. The permit applicant seeks permission to build and operate the Dominion Energy Buckingham Compressor Station at 5297 S. James River Hwy., Wingina, VA 24599.

The ACP permit application states that the facility is classified under SIC Code 4922, “Establishments engaged in the transmission and/or storage of natural gas for sale,” and NAICS Code 486210, Pipeline Transportation of Natural Gas.”¹ The purpose of the plant would be “to provide compression to support the transmission of natural gas.”²

Comments

Virginia DEQ Improperly Designates Facility a Minor Source

In its application, ACP seeks to have the facility permitted as a minor source of air pollution pursuant to state administrative code at 9 VAC Chapter 80 Article VI, subject to new source review (NSR). However, the natural gas compressor station proposed for Buckingham would emit large amounts of pollution and does not meet the requirements to be considered a minor source of air pollution.

Under federal law, the emission threshold for major sources of air pollution is 100 tons

¹ Air Permits Form 7 Application, May 25, 2016, page 9

² Air Permits Form 7 Application, May 25, 2016, page 8

per year. The Clean Air Act³ definition states:

Except as otherwise expressly provided, the terms “major stationary source” and “major emitting facility” mean any stationary facility or source of air pollutants which directly emits, or has the potential to emit, one hundred tons per year or more of any air pollutant (including any major emitting facility or source of fugitive emissions of any such pollutant, as determined by rule by the Administrator).

See 42 U.S. Code § 7602(j).

Further, a small source, or minor source, is defined as follows:

The term “small source” means a source that emits less than 100 tons of regulated pollutants per year, or any class of persons that the Administrator determines, through regulation, generally lack technical ability or knowledge regarding control of air pollution.

See 42 U.S. Code § 7602(x).

Virginia law also sets the benchmark for criteria pollutants and hazardous air pollutants:

Minor NSR permits are for facilities that emit less than 100 tons per year of any criteria pollutant (PM, PM-10, PM 2.5, CO, NO_x, SO₂, and VOC) and for facilities that emit toxic pollutants more than state toxic exemption levels but less than 10 tons per year of one toxic pollutant or 25 tons per year of a combination of toxics pollutants.⁴

However, the potential to emit air pollutants at the proposed Buckingham Compressor Station exceeds the benchmarks to a considerable degree. Our analysis indicates the potentials to emit are significantly above major source thresholds.

Table 1 and Table 2 contain the results of our pollutant emission analysis based on heat input rates provided by the permit application and US EPA air pollution emission factors for natural gas-powered turbines operating at high loads. To achieve maximum thermal efficiency, natural gas-powered turbines are typically operated at or above 80% of their rated capacity.

³ U.S. Code, Title 42, Chapter 85, Subchapter III, § 7601

⁴ Website: Virginia Dept. of Environmental Quality, *Minor New Source Review (NSR) Permits*, at <http://www.deq.virginia.gov/Programs/Air/PermittingCompliance/Permitting/TypesofAirPermits/MinorNewSourceReviewNSRPermits.aspx>

Table 1. Buckingham C2 Station Turbine Power Ratings

Turbine Type Manufacturer: Solar	Emission Unit	Heat input ⁵ mmBTU/hour
Mars 100-16000S	CT 01	129.64
Taurus 70-10802S	CT 02	85.62
Titan 130-20502S	CT 03	157.2
Centaur 50L-6200LS	CT 04	54.98
	Total =	427.44

The hourly heat input rate measured in millions of BTUs per hour, times the pollution emission factor in pounds per million BTUs, times 8760 hours per year, divided by 2000 pounds per ton yields the annual air emissions in tons per year, results in Table 2.

Table 2: Buckingham C2 Station Annual Emissions

Pollutant	Heat Input mmBTU/hour	EPA Emission Factor ⁶ lb/mmBTU	Air Emissions Tons/year
Nitrogen Oxides	427.44	3.2 e-01	599
Carbon Monoxide	427.44	8.2 e-02	153

These air pollution levels are projections. They could be higher. The actual emissions can be affected by many things, including weather conditions, operator ability, control devices, regulations and load factors. ACP admits this in their application:

At very low load and cold temperature extremes, the turbine system must be controlled differently in order to assure stable operation. The required adjustments to the turbine controls at these conditions cause emissions of NOx, CO and VOC to increase (emission rates of other pollutants are unchanged).⁷

The state cannot allow the fiction that the compressor is a minor source. We hereby request that the DEQ take immediate steps to correct this mistake.

Permitting Should Be Suspended until the Supreme Court of Virginia Rules on the Appeal of the Special Use Permit

The Buckingham County Planning Commission and the Board of Supervisors did not fulfill their statutory obligations to consider the disproportionate impacts of the compressor station on minority communities. Based on this failure, in 2017 the Blue Ridge Environmental Defense League, its chapter Concern for the New Generation and fourteen local residents filed a petition in circuit court which is now working its way through the legal system. A Petition for Appeal to the Supreme Court of Virginia was filed on July 17, 2018 and oral arguments are expected late this year.

⁵ Buckingham Compressor station air permit application, May 25, 2018, Table C-11

⁶ AP-42 Table 3.1-1, "Emission Factors for Nitrogen Oxides (NOx) and Carbon Monoxide (CO) from Stationary Gas Turbines," 4/00, lb/MMBTU, Natural Gas-Fired

⁷ Buckingham Compressor station air permit application 9/17/15, page 6-7

Virginia statutes governing energy development articulate support for environmental justice. One of the stated objectives is “developing energy resources and facilities in a manner that does not impose a disproportionate adverse impact on economically disadvantaged or minority communities.”⁸

The Virginia statutes direct various state agencies to work together to create a comprehensive 10-year energy plan that reinforces the EJ and other objectives.⁹ The state’s 10-Year Plan, among other things, must include the following information: an analysis of siting of energy facilities to identify any disproportionate adverse impact of such activities on economically disadvantaged or minority communities. In considering which parcels of land are suitable for energy facility development, the agencies must consider, in addition to technical matters, “potential impacts to natural and historic resources and to economically disadvantaged or minority communities and compatibility with the local land use plan.”¹⁰

The Buckingham County Planning Commission heard evidence of environmental injustice from local residents and regional organizations during the public hearings on the special use permit for the Buckingham Compressor Station. Although information to correct the oversight has been put before the County, it improperly approved the granting of a Special Use Permit.

The “Local Governing Body Certification Form” is a necessary basis for an air permit. Under the present circumstances, a permit cannot be granted by Virginia DEQ. Virginia zoning statutes and regulations allow the Air Pollution Control Board to revisit the matter:

No provision of this part or any permit issued thereunder shall relieve any owner from the responsibility to comply in all respects with any existing zoning ordinances and regulations in the locality in which the source is located or proposes to be located; provided, however, that such compliance does not relieve the board of its duty under 9VAC5-170-170 and § 10.1-1307 E of the Virginia Air Pollution Control Law to independently consider relevant facts and circumstances.¹¹ [emphasis added]

See 9VAC5-80-1230. The Atlantic Coast Pipeline LLC requested a Special Use Permit under the Public Utility Exception in the A-1 Zone ordinance. To qualify for this exception, a facility must be a public utility. However, the compressor station proposed by Atlantic Coast Pipeline, LLC is not a public utility. The company’s air permit

⁸ VA. CODE ANN. § 67-101 (2009); *see also Id.* at § 67-102, stating that to achieve the objectives of § 67-101, it shall be the policy of the Commonwealth to “ensure that development of new, or expansion of existing, energy resources or facilities does not have a disproportionate adverse impact on economically disadvantaged or minority communities.”

⁹ *Id.* at § 67-201

¹⁰ *Id.* at § 67-201(d)

¹¹ 9VAC5-80-1230 “Compliance with local zoning requirements” accessed at <http://www.deq.virginia.gov/Portals/0/DEQ/Air/Regulations/806.pdf>

application states that the Buckingham Compressor Station will not be subject to federal Clean Air Act acid rain regulations because it will not sell electricity and therefore “is a non-utility facility.”¹²

On the utility status issue, ACP’s air permit application to Virginia DEQ states one thing; the company’s request for a Buckingham County Special Use Permit states another. The Local Governing Body Certification Form provides the legal basis for permit review by the state. The state cannot issue the permit until this issue is resolved.

Conclusion

If permitted, the Buckingham Compressor Station would be a major source of air pollution. The Virginia Department of Environmental Quality has incorrectly determined that it would be a minor source. We recommend immediate steps be taken to correct this error. Further, unless and until the Virginia Supreme Court rules, and local governing bodies in Buckingham County to do a proper assessment of the disproportionate impacts on economically disadvantaged or minority communities in and around Union Hill, any air permit issued by Virginia DEQ would lack the necessary legal basis.

Respectfully,



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¹² Buckingham Compressor application 9/17/15, Section 4.7, page 19