

# Blue Ridge Environmental Defense League

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January 12, 2017

Shawn M. Garvin, Administrator  
US Environmental Protection Agency, Region 3  
1650 Arch Street  
Philadelphia, PA 19103-2029

## **RE: Buckingham Compressor Station New Source Review Air Permit**

Dear Mr. Gavin:

On behalf of the Blue Ridge Environmental Defense League, our chapter Concern for the New Generation in Buckingham County and all of our members in Virginia, I write to request that the United States Environmental Protection Agency exert its oversight power to correct errors we have identified in the air permit application for the proposed Buckingham Compressor Station now before Virginia Department of Environmental Quality.

### Background Information

On September 16, 2015, Atlantic Coast Pipeline, LLC (öACPö) submitted an application to the Virginia Department of Environmental Quality to construct and operate a compressor station to be located on the route of the proposed Atlantic Coast Pipeline in Buckingham County, Virginia. The purpose of the plant would be öto provide compression to support the transmission of natural gas.ö<sup>1</sup>

The ACP permit application states that the facility is classified under SIC Code 4922, öEstablishments engaged in the transmission and/or storage of natural gas for sale,ö and NAICS Code 486210, Pipeline Transportation of Natural Gas.ö<sup>2</sup>

### 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

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<sup>1</sup> Air Permits Form 7 Application, May 25, 2016, page 8

<sup>2</sup> Air Permits Form 7 Application, May 25, 2016, page 9

per year. The Clean Air Act<sup>3</sup> 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<sub>x</sub>, SO<sub>2</sub>, 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.<sup>4</sup>

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. To achieve maximum thermal efficiency, natural gas powered turbines are typically operated at or above 80% of their rated capacity, so we have bracketed this capacity rate with heat input data at 50% and 100% loads.

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<sup>3</sup> U.S. Code, Title 42, Chapter 85, Subchapter III, § 7601

<sup>4</sup> 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 <sup>5</sup> 50% load mmBTU/hour	Heat input <sup>6</sup> 100% load mmBTU/hour
Mars 100	CT 01	85.24 <sup>a</sup>	116.41 <sup>a</sup>
Taurus 70	CT 02	56.92 <sup>a</sup>	79.24 <sup>a</sup>
Titan 130	CT 03	105.64 <sup>b</sup>	142.45 <sup>b</sup>
Centaur 50L	CT 04	35.20 <sup>a</sup>	50.72 <sup>a</sup>
	Totals =	283.00	388.82

a. ACP Air Permit Application Sept. 17, 2015, Appendix D

b. ACP Air Permit Application May 25, 2016, Attachment 2

**Table 2: Buckingham C2 Station Annual Emissions**

Pollutant	Heat Input mmBTU/hour	Emission Factor <sup>7</sup> AP-42 uncontrolled	Air Emissions Tons/year
Carbon Monoxide	283 all loads	1.77 e-01	219.40
Nitrogen Oxides	283 all loads	2.95 e-01	365.66
Carbon Monoxide	389 high loads	8.23 e-02	140.16
Nitrogen Oxides	389 high loads	3.23 e-01	550.07

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 NO<sub>x</sub>, CO and VOC to increase (emission rates of other pollutants are unchanged).<sup>8</sup>

In a discussion with the permit engineers at the Virginia DEQ, we have come to understand that the state will allow the fiction that the compressor is a minor source. We hereby request that the EPA take immediate steps to correct this mistake.

<sup>5</sup> Buckingham Compressor station air permit application, Heat Input at 50% Load, Ambient Temp 59 degrees-F

<sup>6</sup> Buckingham Compressor station air permit application, Heat Input at 100% Load, Ambient Temp 59 degrees-F

<sup>7</sup> AP-42 Table 3.4-1, Summary of Emission Factors for Natural Gas-fired Gas Turbines, April 2000

<sup>8</sup> Buckingham Compressor station air permit application 9/17/15, page 6-7

### Permitting Should Be Suspended until Local Zoning Requirements are Satisfied

The Buckingham County Planning Commission and the Board of Supervisors have not fulfilled their statutory obligations to consider the disproportionate impacts of the compressor station on minority communities.

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.”<sup>9</sup>

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.<sup>10</sup> 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.”<sup>11</sup>

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 has improperly approved the granting of a Special Use Permit. The “Local Governing Body Certification Form” is a necessary component of the permitting process. Accurate and truthful representations to rule out conflicts with zoning regulations must be made before the state may approve 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

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<sup>9</sup> 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.”

<sup>10</sup> *Id.* at § 67-201

<sup>11</sup> *Id.* at § 67-201(d)

Virginia Air Pollution Control Law to independently consider relevant facts and circumstances.<sup>12</sup>

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 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.<sup>13</sup>

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 EPA cannot permit an ongoing violation.

### 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 believe that the EPA must take immediate steps to correct this error. Further, unless and until the state requires the 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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Blue Ridge Environmental Defense League

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<sup>12</sup> 9VAC5-80-1230 "Compliance with local zoning requirements" accessed at <http://www.deq.virginia.gov/Portals/0/DEQ/Air/Regulations/806.pdf>

<sup>13</sup> Buckingham Compressor application 9/17/15, Section 4.7, page 19