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Environmental Protection Agency
EPA Docket Center (EPA/DC)
Mail Code 28221T
1200 Pennsylvania Avenue, NW
Washington, DC 20460

RE: Docket ID No. EPAï HQï OARï 2016ï 0194

On behalf of the Blue Ridge Environmental Defense League, I write to comment on the proposed revisions to petitioning under Title V of the Clean Air Act. In our experience, the petitioning of the United States Environmental Protection Agency under Title V of the Clean Air Act is an unsatisfactory procedural exercise with an unacceptable outcome. In fact, we have filed numerous petitions under Clean Air Act § 505 over the last 20 years. However, response to our petitions has been slow to non-existent. The deadlines required of the interested public to file petitions are cast in concrete, but the statutory deadlines applying to the agency are written in sand. The addition of an electronic submittal system alone will not suffice. The EPA must respond to petitions in a timely and substantive manner, a practice common in the legal and business world. Further, we recommend that the EPA should act more as an arbiter between permit applicants and the public petitioners, rather than an advocate for state air pollution agencies. Federal law in agreement states is the bedrock of environmental protection, state work-arounds and noncompliance notwithstanding. The EPA should view petitioners as allies, not as adversaries. I have included in these remarks highlights from three of our most recent Title V petitions as examples in which state agencies have failed to adhere to federal law.

Background

Pursuant to 42 USC § 7661d, the Blue Ridge Environmental Defense League has submitted numerous petitions to the Environmental Protection Agency.

The federal Clean Air Act requires permitting authorities to submit a proposed title V permitð including initial permits, permit renewals, or permit modifications or revisionsð to the EPA Administrator for a 45-day review period before issuing the permit as final. During that review, if the Administrator determines that the permit contains provisions that are not in compliance with the applicable requirements under the Act, the Administrator must object. If the Administrator does not object to the permit during the 45-day EPA review period, any person may submit a title V petition to the Administrator within 60 days after the expiration of the 45-day review period seeking such an objection.

Comments

What follows are examples of valid concerns raised in petitions which EPA has failed to resolve.

Vogtle Electric Generating Plant—Southern Company

On August 10, 2010, pursuant to the Clean Air Act § 505(b)(2), Blue Ridge Environmental Defense League and its chapter Concerned Citizens of Shell Bluff filed a petition based on objections to the Part 70 Air Quality Operating Permit issued by the Georgia Environmental Protection Division for the Vogtle Electric Generating Plant.[1]

In brief, Georgia Environmental Protection Division approved a permit modification for the plant to add four new cooling towers for an expanding nuclear power plant. Radionuclide emissions to the atmosphere are regulated as hazardous air pollutants under Title III of the federal Clean Air Act. Although enforcement of the Clean Air Act regulations related to nuclear power plant licenses are delegated to the US Nuclear Regulatory Commission, the Part 70 Air Quality Operating Permit *for the cooling towers* issued by the Georgia Environmental Protection Division is authorized under the federal Clean Air Act,[2] not the Atomic Energy Act.

The Clean Air Act requires the maximum degree of reduction in emissions, including a prohibition on such emissions where achievable. For example, although emission rates from the cooling towers and other sources are measured, the millirem standard for maximum allowable dosage to the public is an ambient standard, not an emission limit. Without ambient measurements, EPD cannot assure the public that emissions of radionuclides are below the regulatory limits.

Aside from specific environmental issues, our petition sought to clarify the lines of authority and the accountability under the law. Cooling towers at nuclear power plants are granted operating permits under the Clean Air Act by statesô permitting agencies under agreement with the EPA.

Piedmont Natural Gas—Wadesboro Compressor Station

On October 3, 2014, pursuant to Title 42 U.S.C. § 7661 and on behalf of Petitioners Pee Dee Water Air Land and Lives and the Blue Ridge Environmental Defense League, we petitioned the United States Environmental Protection Agency to object to the issuance of the Title V Permit No. 10097T01 issued by the North Carolina Department of Environment and Natural Resources Division of Air Quality to the Wadesboro Compressor Station operated by Piedmont Natural Gas.

In brief, DAQ permit suffers from fatal flaws which result in excessive air pollution levels and place a disproportionate burden on low income and minority populations. As granted by DAQ, the permit for the Piedmont Natural Gas Wadesboro Compressor Station fails to comply with the air quality permitting program under Title V and 40 CFR Part 70. Therefore, Petitioners requested that the EPA require the NC Division of Air

[1] Permit No. 4911-033-0030-V-02-3
[2] Clean Air Act §502(a) and 40 CFR 70.3

Quality object to the Permit and require DAQ to 1) Hold a public hearing in the affected community, 2) Properly analyze criteria and hazardous pollutant emissions and opacity, 3) Include sufficient permit monitoring and compliance measures, and 4) Perform a cumulative and secondary impact analysis of environmental justice impacts.

The compressor station site is located in a county with a majority of African American residents and a high level of people below poverty level. The latest census data reveal Anson County is 48.5% black, 48.2% white. In Anson County 22.2% of the people are below poverty level, compared to the statewide level of 16.8%.[3]

Wadesboro, in addition to being the site of a Piedmont Natural Gas compressor station, is the location of several other significant sources of air pollution including Triangle Brick Company, Valley Proteins and Carolina By-Products. Also, Piedmont Natural Gas is a natural gas supply company with more than a million residential and business customers and their pipeline crosses Anson County. However, DAQ has not complied with its environmental justice obligations under the stateôs Administrative Procedure Act. See *Washington County v. U.S. Dep't of the Navy*.[4] North Carolina law and permit review procedures require the evaluation of the cumulative or secondary impacts.[5]

The EPAôs responsibility to review state permits for EJ compliance was stated clearly in a 2011 memorandum to Regional EPA Administrators which urged each EPA region to fully analyze the ñhealth, social and economic effectsò on minority and low income communities in its own work ñas well as our review of other agenciesô NEPA documentsò pursuant to the Clean Air Act Section 309, which authorizes EPA to review environmental actions and to make these reviews public.[6]

The permit as issued by the State of North Carolina is not in compliance with applicable requirements of the federal Clean Air Act and implementing regulations. Federal regulations at 40 CFR §70.8(c)(1) require the EPA to object to a proposed permit if it is not in compliance with the requirements of the relevant part. Further, failure of the permitting authority to meet procedural requirements for public participation under §70.7(h) constitute sufficient grounds for EPA to object to a proposed permit. Requests from the affected community for a public hearing were not granted by DAQ.

The DAQôs Permit has insufficient basis for determining compliance with NAAQS opacity standards. The DAQ Air Permit Review states: ñAs stated in the inspection report, typical opacities for these engine exhausts is zero.ò The facility inspection cited in the permit review occurred on April 22, 2014; however, at the time of inspection the inspector noted that the facility was not in operation. Petitionersô raised this issue with the DAQ, stating that a non-specific review of a typical facility is insufficient when the

[3] US Census Bureau Quick Facts, Anson County, http://quickfacts.census.gov/qfd/states/37/37007.html
[4] 317 F.Supp.2d 626 (E.D.N.C. 2004)
[5] North Carolina Environmental Policy Act of 1971, Chapter 113A, §§ 113A-1, *et. seq*
[6] Memorandum from EPA Assistant Administrator for Enforcement and Compliance Assurance Cynthia Giles to Regional Administrators re environmental justice reviews pursuant to NEPA and Clean Air Act Section 309, 42 U.S.C. §760, April 19, 2011. Accessed 10/1/14 at http://www.epa.gov/compliance/resources/policies/nepa/nepa-environmental-justice-memo-pg.pdf

matter at hand is a specific facility at a specific location. Therefore, the premise of the draft permit for compliance with the 20% opacity standard has no basis.

The DAQ air permit review states that emission rates for NO_x, VOC, CO and formaldehyde were provided by the engine supplier. (Other emission rates were derived from US EPAôs AP-42 section 3.2.) For example, the DAQ review states that the emission factor for NO_x used as a basis for the permit was 5.00e-01 g/hp-hr, or 0.5 grams/horsepower-hour. Use of this figure yields the NO_x level listed in the table above. However, Petitionersô review of the technical data sheet for the Caterpillar G3616 gas engine indicates a higher emission rate of 0.7 g/hp-hr.[7] Using this figure, facility-wide emissions of NO_x are 255 tons per year, or 40% higher. This information was provided to the DAQ by Petitioners during the public comment period.

Further, the lean-burn engine employed by Piedmont Natural Gas at the Wadesboro facility would have wide variations in nitrogen oxide (NO_x) and carbon monoxide (CO) emissions depending on the load placed on the engines. US EPA emission factors for this type of engine (presented in pounds/million BTU heat input) indicate the following:

Pollutant	**90-105% Load**	**<90% Load**	**Difference**
NO_x	4.08	0.847	482%
CO	0.317	0.557	76%

The differences indicated above are, of course, in opposite directions; i.e., NO_x levels are higher at about 100% load and CO levels are higher when the load is below 90%. Products of incomplete combustion (PICs) caused by rich-burning or lean-burning are known to include carbon monoxide and aldehydes. Changes in operating conditions explain the variations in air pollution emissions.

Pollutant emissions vary with load conditions. Engine efficiency is less when the engine is operating at full throttle (effective compression ratio is lower because the incoming fuel-air mixture cannot fill the combustion chamber as well). Lean-burn technologies are associated with increased carbon monoxide emissions.[8] Catalytic oxidizers may reduce CO from lean-burn internal combustion engines by converting it to carbon dioxide, CO_2; however, they do not reduce nitrogen oxides.

Even the engine manufacturer warns against the reliance on its technical data for regulatory compliance: ñThe nominal emissions data shown is subject to instrumentation, measurement, facility and engine to engine variations. Emissions data is based on 100% load and thus cannot be used to compare to EPA regulations which use values based on a weighted cycle.ò[9]

[7] Caterpillar, G3616 gas engine, technical data, http://pdf.cat.com/cda/files/2842978/7/LEHE0326FM-00.pdf

[8] AP-42, Stationary Internal Combustion Sources, Section 3.2.4.2 Control Techniques for Lean-burn Reciprocating Engines, page 3.2-5

[9] http://pdf.cat.com/cda/files/2195869/7/3512B%201750%20kVA%20Standby%20HD%20LowEmiss_EU_EMCP4.pdf, Caterpillar technical data sheet for emergency diesel generator set

The DAQ's permit as issued does not include adequate monitoring, recordkeeping and reporting requirements to ensure that the Piedmont Natural Gas Wadesboro Compressor Station will comply with NAAQS and the state implementation plan for NO_x, CO formaldehyde and other pollutants.

The Petitioner requested that the EPA Administrator object to the permit.

Richmond County Combustion Turbines

On January 17, 2014, the Blue Ridge Environmental Defense League and its chapter Concerned Citizens of Richmond County, petitioned the United States Environmental Protection Agency to object to the issuance of the Title V permit No. 08759T15 issued by the North Carolina Department of Environment and Natural Resources Division of Air Quality to the Richmond County Combustion Turbine Facility operated by Duke Energy Progress.

The DAQ has improperly sanctioned both the addition of new air pollution sources and the removal of others from the Permit. The DAQ did not perform a proper MACT analysis. Duke Energy Progress trimmed its application to escape requirements of BACT and MACT.

The Richmond County Turbines plant has three natural gas fired heaters (ES-21, ES-22 and ES-23) with a heat input of 8.75 MMBtu/hr each. In their permit application submitted in 2008, three additional natural gas fired heaters (ES-16, ES-17 and ES-18) with a heat rating of 5.0 MMBtu/hr were to be added to the permit. However, Duke requested that the DAQ remove all six of these natural gas fired units from their permit. These heaters are located within the fence line of the Richmond County facility but owned and operated by Piedmont Natural Gas.

The federal Clean Ait Act Title V operating permit program requires that major industrial sources and certain other sources obtain a permit that consolidates all of the applicable requirements for a facility into one document. The Richmond County Energy Complex is a single site with co-located air pollution emission sources. The purpose of title V permits is to reduce violations of air pollution laws and improve enforcement of those laws. We recommended that EPA not permit the six combustions sources to be separated from the extant permit.

According to 42 USC § 7412 - Hazardous air pollutants, the term ñmajor sourceò means ñany stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit considering controls, in the aggregate, 10 tons per year or more of any hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants.ò The DAQ has adopted a truncated view of the meaning for common control by labeling it ñlegal control.ò The state permit review holds that:

> Although these heaters are located within the RCCTF fence line, the equipment is owned, operated and maintained by Piedmont Natural Gas. Even though this equipment

> was originally included in the applicable permit application, the definition of ñstationary sourceò according to the DAQ indicates that inclusion of equipment owned, operated and maintained by Piedmont Natural Gas is not considered part of the stationary source that is owned, operated and maintained by Duke.
>
> 40 CFR 51.166(b)(5) defines ñstationary sourceò as any building, structure, facility, or installation which emits or may emit a regulated NSR pollutant.
>
> Additionally, 40 CFR 51.166(b)(6) defines ñbuilding, structure, facility, or installationò as 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....
>
> These two definitions outline three distinct and independent criteria that must all be satisfied in order to be considered part of a single stationary source:
>
> (1) Common legal control
> (2) Contiguous or adjacent properties
> (3) Part of the same 2-digit SIC code
>
> At RCCTF, the M&R Station will be located on contiguous property and share the same 2-digit SIC code, however, is not under common legal control. Therefore, the natural gas fired heaters are not required to be included in the RCCTF Title V permit and the heaters have been removed from the permit.

(emphases added)

The difference between ñlegal controlò and ñcommon controlò here seems to be the nexus of the stateôs allowing Duke Energy Progress to pare off six combustion units from the Permit. They are within the same fence line. Piedmont Natural Gas units are numbered consecutively with Duke Energy Progress units. If it were so that Duke and Piedmont were not under ñcommon legal control,ò would it have been necessary for Duke Energy Progress to modify its existing permit to remove certain combustion units, as the company requested in Application No. 7700070.11A?

> Under the definition the ñenterpriseò includes all related activities performed through ñcommon controlò for a common business purpose.... ñCommonò control includes the sharing of control and it is not limited to sole control or complete control by one person or corporation. ñCommonò control therefore exists where the performance of the described activities are controlled by one person or by a number of persons, corporations, or other organizational units acting together. This is clearly supported by the definition which specifically includes in the ñenterpriseò all such activities whether performed by ñone or more corporate or other organizational units.ò

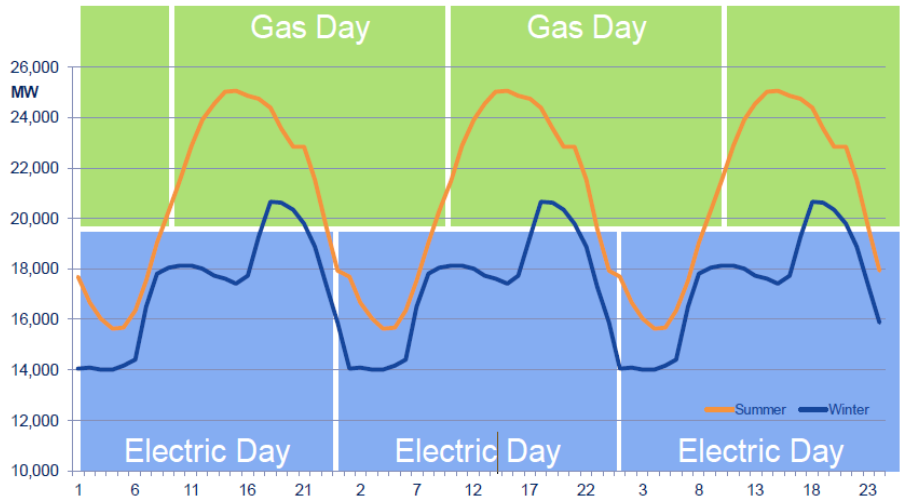
See 29 CFR § 779.221 ñCommon controlò defined. The DAQôs judgment call, that Piedmont and Duke lack common legal control at the Richmond Combustion Turbines, is not in compliance with § 779.221. Common control need not be sole or complete by one entity, but merely when performance is controlled for common business purposes. The common business purpose for Duke and Piedmont at Richmond Combustion Turbines is the production of electricity via the combustion of a common fuel.

Electric plants and pipelines have what is known in the industry as a ñplanning gap.ò

> [T]he gas day begins the day during the morning ñpick-upò, and the electric day begins during the midnight ñdrop-offò. The apparent phase shift observed during the two industryôs operating/planning days creates some inherent challenges during the coordination, scheduling, and nomination processes.

The planning gap exists because ñthe two industries operates on different schedules (local midnight-to-midnight for electric and 9 a.m. to 9 a.m. EST for gas), creating a planning gap because generators must estimate their gas needs several hours before they have finalized operational plans for the next day.ò See Figure A.[10]

Figure A. Typical Electric Load Patterns: Gas Day v. Electric Day

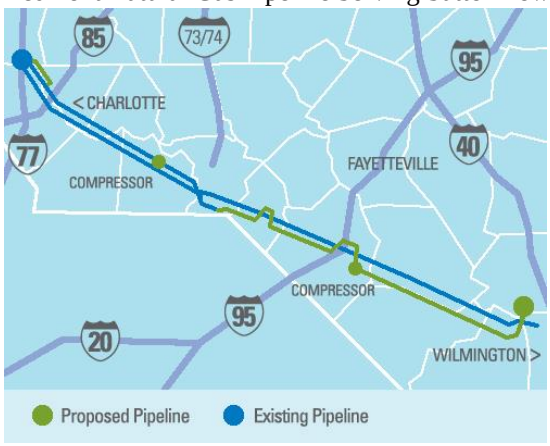


Electrical grids have excess capacity for reliability, while pipelines serve contract demand. Interruptible gas pipeline serviceð for electric generating units and other customersð is available only when contract capacity is not being used.

In addition to operating plants at Richmond Combustion Turbines, Piedmont Natural Gas is a natural gas supply company for more than a million residential and business customers in North Carolina, South Carolina and Tennessee. Their pipeline crosses Iredell, Mecklenburg, Cabarrus, Anson, Richmond, Scotland, Robeson, Bladen, Columbus, Brunswick, and New Hanover counties (Figure B).

[10] North American Electric Reliability Corporation, ñA Primer of the Natural Gas and Electric Power Interdependency in the United States,ò Figure 7-8, page 96 (2011)

Figure B. Piedmont Natural Gas Pipeline Serving Sutton Power Plant [11]



Are the six units owned by Piedmont Natural Gasð emission sources 16, 17, 18, 21, 22, and 23ð under totally independent operation? Are they shut down without alerting Duke Energy Progress? Are Dukeôs and Piedmontôs turbines operated for a common business purpose? Does Duke work with Piedmont to coordinate daily gas supply needs from a common source? The DAQôs assessment that there is no common legal control is not based on facts on the ground.

As granted by DAQ, the permit for the Richmond County Turbines allow significant modification of the facility. The permit must comply with the air quality permitting program under Title V and 40 CFR Part 70, but the removal of several emissions sources operating within the energy complex, the removal of alternative compliance procedures under several MACT sources and alterations in enforcement of rule requirements make the draft permit unacceptable.

The EPA should have required the NC Division of Air Quality to: 1) Redraft the permit as a site-wide permit, 2) Prevent six combustions sources from being separated from the existing permit.

Conclusion

In sum, Section 505 petitions under the Clean Air Act are subject to specific administrative deadlines and judicial review. If through action or inaction the EPA allows excessive emissions of air pollution, it has a negative impact on public health. EPA is not addressing their non-discretionary responsibility to act on Title V petitions in a timely fashion at all.

EPA should be firmer on allowing petitions that raise new issues. EPA should require state permitting authorities to prepare complete permit records that are consistent with the requirements of the Clean Air Act by requiring them to respond in writing to significant comments received during the public comment period for draft title V permits, and to provide that response with the proposed title V permit to the EPA for the agencyôs 45-day

[11] http://www.piedmontng.com/about/pipelineprojects/sutton.aspx

review period. These changes would provide more access to and better understanding of permitting decisions, and better protect public health.

Respectfully,

Louis A. Zeller
Executive Director