

BLUE RIDGE ENVIRONMENTAL DEFENSE LEAGUE

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May 18, 2003

Keith Overcash, Director
Division of Air Quality
1641 Mail Service Center
Raleigh, NC 27699-1641

**Re: Air Permit No. 03757T23, Duke Energy Corporation Allen Steam Station
Facility ID 03/036/00039, Belmont, NC Gaston County**

Dear Mr. Overcash:

On behalf of the Blue Ridge Environmental Defense League, I write to comment on the proposed Title V permit for G. G. Allen electric power station. Duke Energy Corporation, 253 Plant Allen Road Belmont, NC 28012.

Plant Allen is located in Gaston County on the banks of the Catawba River, 2000 feet from Mecklenburg County line and 10 miles from downtown Charlotte (see map attached). The five main boilers range in age from 42 to 46 years.

<u>Unit</u>	<u>First year operation</u>	<u>Power</u>
Unit 1	1957	165 Mw
Unit 2	1957	165 Mw
Unit 3	1959	265 Mw
Unit 4	1960	275 Mw
Unit 5	1961	270 Mw

source: DOE

The draft permit states that Allen plant emits sulfur dioxide emissions in excess of NAAQS. This was confirmed both by computer predictions and by offsite monitoring. But the remedy stipulated by DAQ for this violation is wholly inadequate.

b. Allen Steam Station was predicted by computer modeling to have exceedences of the ambient sulfur dioxide standard(s). A monitored exceedence of the ambient sulfur dioxide standard(s) was documented to be attributable to Duke Energy Corporation's Allen Steam Station. Pursuant to 15A NCAC 2D .0501(e), Duke Energy Corporation must continue to perform ambient sulfur dioxide monitoring and meteorological measurements at the Allen Steam Station. Operation of the Allen ambient sulfur dioxide monitoring system and meteorological measurements station shall meet the requirements as specified below:

DAQ Air Permit draft, Section 2.A.1.b, page 8

The DAQ requirement for SO₂ monitoring and a weather station cannot reduce the level of this pollutant to an acceptable level. And stack extensions will simply shift the SO₂ problem a little

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farther downwind. The plant is only ten miles southeast of Duke's headquarters in downtown Charlotte. Moreover, work on the stacks will not have to be completed until January 2009, nearly a year beyond the expiration date of draft Permit No. 03757T23. The DAQ cannot permit an ongoing violation. This draft permit cannot be issued.

(f) The Permittee has certified noncompliance with the 15A NCAC 2D .0501 standard for these sources. These sources are subject to compliance schedule described below.

Compliance Schedule

(i) The Permittee shall extend the stacks for boilers (ID Nos. ES-1 through ES-5) to 322 feet from the base of the stack (i.e., ground level) assuring 70 feet extension to each of these stacks. Duke Energy Corporation may revise above stack extensions (70 feet extensions), based upon a new compliance plan and a modification to the permit, both to be approved by DAQ in future, and assuring the schedule of construction of the stack extensions as included in Section ii. below.

(ii) The Permittee shall complete construction of stacks for boilers (ID Nos. ES-1 through ES-5) by December 31, 2008.

DAQ Air Permit draft, Section 2.A.1.f, page 9

The draft permit fails to stipulate when and how the above requirements for SO₂ and weather monitoring will be satisfied.

g. The requirements of the provisions Section 2.1 A. 1. b., c., and d. above shall cease to apply upon DAQ's written notice to the Permittee that the close-out audit for the SO monitors AS1, AS2 and AS3, and the meteorological station, conducted by the DAQ has been completed and the associated data have been accepted.

DAQ Air Permit draft, Section 2.A.1.g, page 9

The draft permit does not allow the public to have access to review and comment upon these data. The Clean Air Act states that data which is gathered for such purposes shall be available at the public hearing for such a permit.

(2) Effective one year after date of enactment of this part, the analysis required by this subsection shall include continuous air quality monitoring data gathered for purposes of determining whether emissions from such facility will exceed the maximum allowable increases or the maximum allowable concentration permitted under this part. Such data shall be gathered over a period of one calendar year preceding the date of application for a permit under this part unless the State, in accordance with regulations promulgated by the Administrator, determines that a complete and adequate analysis for such purposes may be accomplished in a shorter period. The results of such analysis shall be available at the time of the public hearing on the application for such permit.

CAA Section 165 (e)(2)

Duke Energy's GG Allen is an egregious violator of federal and state air pollution control regulations. The company installed seven major modifications at the Allen plant from 1988 to 2000 at all five coal-fired electric generating units which are recorded in the civil complaint signed by United States Department of Justice attorneys on December 22, 2000. The fourteen violations and penalties are for illegal modifications done by Duke Energy, modifications defined under Section 111 (a) [42 USC 7411 (a)] of the Clean Air Act because they physically change the method of operation and increase the amount of pollution emitted by the source. These were modifications which continue to have an impact on National Ambient Air Quality Standards for

nitrogen oxides, sulfur dioxide, and particulate matter. The EPA has requested the court to “Permanently enjoin the Defendant (Duke) from operating the coal fired plants...including the construction of future modifications, except in accordance with the Clean Air Act” because they were modified without approval. BREDL supports the EPA in this matter and calls upon the State of North Carolina to use all measures at its disposal to enforce the Clean Air Act and Amendments at GG Allen. The specific violations at Allen are listed in Table 1:

Table 1. Violations of Federal and State Law at Allen Steam Station

Year of modification	Boiler Unit	Modification done
1989	Unit 1	Replaced and redesigned major components of boilers
1988	Unit 2	Replaced and redesigned major components of boiler
1994	Unit 3	Replaced pendant superheater assemblies and crossover tubes with steam lines
1996	Unit 4	Replaced both banks of economizer, superheat header and crossover tubing
1998	Unit 4	Major boiler and turbine overhaul
1996	Unit 5	Replaced economizer, superheat and reheat furnaces
2000	Unit 5	Major boiler and turbine overhaul

All the above are violations of North Carolina regulations under 15A NCAC 2D .0530, 15A NCAC 2Q .0301, and federal regulations of the Clean Air Act Section 165(a), 42 USC 7475(a). Moreover, with each modification, Duke failed to install required best available control technology on these plants. Coal-fired power plants must meet regulations for the prevention of significant deterioration under the federal Clean Air Act and the North Carolina State Implementation Plan.

The Allen plant’s continues to violate PSD (prevention of significant deterioration as stated in the civil action of 12/22/00: “Defendant has violated and continues to violate Section 165(a) of the Act...Unless restrained by an order of this Court, these and similar violations of the Act will continue.” The Clean Air Act Section 165 states that no facility may be constructed unless 1) a permit is issued, 2) a public hearing has been held, 3) the owner/operator can prove that the source will not violate NAAQS, 4) the source has installed best available control technology, 5) Class I areas are protected, and 6) “there has been an analysis of any air quality impacts projected for the area as a result of growth associated with such facility.” The draft permit for Allen fails to meet these requirements. No public hearing has been held. The plant is in violation of PSD. BACT has not been installed. Class I areas are not protected. Growth impacts have not been analyzed. Therefore, DAQ cannot issue this draft permit.

Average NOx Rate (lb/mmBtu) - source: EPA data

Year	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5
2001	0.30	0.44	0.44	0.31	0.44
2000	0.45	0.45	0.44	0.44	0.45
1999	0.44	0.44	0.45	0.41	0.45
1998	0.44	0.42	0.44	0.42	0.42
1997	0.43	0.44	0.44	0.43	0.43
1996	0.64	0.55	0.56	0.52	0.59
1995	0.55	0.54	0.56	0.64	0.64

Nitrous Oxide, Sulfur Dioxide, and Carbon Dioxide emissions tons per year - source: EPA data

Year	NOx	SO ₂	CO ₂
2001	10,673	37,027	5,487,331
2000	13,054	34,058	5,914,264
1999	12,087	32,169	5,619,742
1998	9,655	25,224	4,508,312
1997	14,090	40,083	6,627,324
1996	15,184	35,291	5,545,956
1995	10,976	21,274	3,661,778

Sulfur dioxide emissions for this plant have generally been increasing for the last seven years for which we have data. The SO₂ emissions in 2001 were about 18% higher than the mean for the seven year period.

pounds released in 2000 - source: EPA TRI

Chemical	Air	Land	Water	Total On-Site Releases
Ammonia	1,605		1,500	3,105
Arsenic compounds	1,105	49,005	3,200	53,310
Barium compounds	4,305	480,005	8,400	492,710
Chromium compounds	995	84,005	600	85,600
Cobalt compounds	205	32,005	1,500	33,710
Copper compounds	605	87,005	2,200	89,810
Hydrochloric acid	5,300,005			5,300,005
Hydrogen fluoride	340,005			340,005
Lead compounds	795	34,005	120	34,920
Manganese compounds	1,205	100,005	4,200	105,410
Mercury compounds	200	110	3	313
Nickel compounds	735	55,005	300	56,040
Sulfuric acid	340,005			340,005
Vanadium compounds	1,005	99,005	750	100,760
Zinc compounds	1,005	60,005	750	61,760
TOTAL	5,993,780	1,080,160	23,523	7,097,463

Dioxin and dioxin-like compounds 0.4000000 grams released in 2000 (source: EPA TRI)

Energy Management Systems Increase Risk to Public Health

The draft permit states that Duke must obtain an air permit before installing current trimming devices (energy management systems) on its electrostatic precipitators (draft permit section 2.1.A.6.c). We remain unconvinced that energy management systems are used only to optimize performance of pollution control devices and not to save energy as their name implies. In a February 25, 1999 letter to DAQ, Duke Energy's David Miller stated, "We believe that use of energy management systems will not adversely impact compliance with opacity regulations, but rather, represent an increase in energy efficiency (less coal per MW)." DAQ's Gary Saunders' email of February 3, 2000 stated, "...a *substantial* decrease in power utilization might be realized with the use of Power Management controllers while not *significantly* adding to the emissions from the ESP." [emphasis added] Plainly, the primary motivation for EMS systems is to save energy costs. Power saving is not an appropriate use of EMS and its use as such would violate the requirement for "maximum feasible control" under 15A NCAC 2D.0502.

As we have stated in previous correspondence, EMS or current trimming relies on the supposition of parity between particulate emissions and opacity. There is no consistent correlation between opacity and particulate emissions; therefore, using opacity monitoring to ramp down the voltage on electrostatic precipitators which control particulates puts public health at risk, regardless of the rationale. Duke requested and received from the NC EMC a special order by consent in 1999, admitting that it could not meet opacity standards. We have outlined this in previous coal-fired power plant comments. The Allen plant and others still cannot meet opacity standards. The DAQ cannot permit an ongoing violation.

Duke's Violation of New Source Review

Duke Energy's 2001 Annual Report states:

In 2000, the U.S. Justice Department, acting on behalf of the EPA, filed a complaint against Duke Energy in the U.S. District Court in Greensboro, North Carolina, for alleged violations of the New Source Review (NSR) provisions of the CAA. The EPA claims that 29 projects performed at 25 of Duke Energy's coal-fired units were major modifications, as defined in the CAA, and that Duke Energy violated the CAA's NSR requirements when it undertook those projects without obtaining permits and installing emission controls for sulfur dioxide, nitrogen oxide and particulate matter. The complaint asks the court to order Duke Energy to stop operating the coal-fired units identified in the complaint, install additional emission controls and pay unspecified civil penalties. This complaint is part of the EPA's NSR enforcement initiative, in which the EPA claims that utilities and others have committed widespread violations of the CAA permitting requirements for the past 25 years. The EPA has sued or issued notices of violation of investigative information requests to at least 48 other electric utilities and cooperatives.

http://media.corporate-ir.net/media_files/NYS/DUK/reports/duke2001ar/downloads/financial.PDF

Draft permit section 2.2, Permit Shield for Nonapplicable Requirements, holds that Duke Energy remains in violation of important provisions of the Clean Air Act. The language in the draft permit is intended as a "placeholder" to allow permit approval pending ongoing enforcement action by the U. S. Environmental Protection Agency. Section 2.2 stipulates that the permit "may be subject to reopening" to correct illegal actions by the company. The draft permit states:

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This condition is to clarify that issuance of this permit provides no shield from the Act, or regulations promulgated thereunder, including state regulations, pertaining to requirements of the New Source Performance Standards or major or minor new source preconstruction review requirements, which EPA is currently alleging as having been violated by the Permittee. The permit may be subject to reopening to include a compliance plan and schedule addressing any judicial or administrative order establishing new applicable requirements arising out of past or ongoing noncompliance with those provisions for any affected emission units. [40 CFR 70.6(c)(3), 70.6(f) and 70.7(f)]

Moreover, 40 CFR Part 70 requires compliance schedules to be included in Title V permits for sources which are out of compliance. Duke is out of compliance but the compliance schedule in the draft permit for Allen is wholly inadequate because it does not begin to address the installation of major new components and modifications at all five Allen units. Duke faces federal fines of up to \$27,500 per day at this facility. Yet the permit review somehow overlooks fundamental issues of compliance with the federal Clean Air Act and the State Implementation Plan.

XIII. Recommendations

The initial Title V application for Duke Energy Corporation, Allen Steam Station has been reviewed by the DAQ to determine compliance with all procedures and requirements under 15A NCAC 2Q .0500 and 40 CFR Part 70. The DAQ has made a preliminary determination that the facility is complying or will achieve compliance as specified in the draft permit with all applicable requirements. Therefore, the DAQ will propose to issue the Title V Operating Permit upon completion of the public comment period and the EPA review.

DAQ Air Permit Application Review, April 11, 2003, page 30

North Carolina has never adequately enforced the New Source Review provisions of the federal Clean Air Act. As you know, New Source Review was established by Title I of the Act to protect public health. The underlying principal of NSR is that major air pollution sources, both new plants and modifications of existing units, must install modern pollution controls. The Allen plant cannot meet NAAQS. The DAQ must go back to the drawing board and begin with a new permit and a new permit process for the major modifications which have occurred at this facility. The DAQ should not issue this draft permit.

Respectfully submitted,

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Cc: Laura Butler
Rahul Thaker
John Runkle, Esq.

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Attachment

G.G. Allen Steam Station
253 Allen Plant Road, Belmont, NC 28012 Gaston County

