September 29, 2015

Administrator Regina McCarthy
U.S. Environmental Protection Agency
Ariel Rios Building
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460 1101A
McCarthy.gina@epa.gov

Via electronic mail and hand delivery

Mr. Barry R. Stephens, P.E.
Director, Air Pollution Control Division
Tennessee Department of Environment and Conservation
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 15th Floor
Nashville, TN 37243
Barry.stephens@tn.gov
cc: Malcolm.butler@tn.gov, Air.pollution.control@tn.gov

Tom Waddell
Senior Manager, Air Permits, Compliance, and Monitoring
Environmental Permits & Compliance
Tennessee Valley Authority
1101 Market Street, BR4
Chattanooga, TN 37402
Jtwaddel@tva.gov

Heather Ceron
Air Permits Section Chief
U.S. Environmental Protection Agency, Region 4
Sam Nunn Atlanta Federal Center
61 Forsyth Street, SW
Atlanta, GA 30303-8960
Ceron.heather@epa.gov,
cc: Land.eva@epa.gov, Purvis.james@epa.gov

Via electronic mail

Re: Sierra Club and EIP Petition Seeking EPA Objection to Bull Run Title V Permit, I.D. No. 01-0009/567519

Dear Administrator Regina McCarthy, Director Barry Stephens, Senior Manager Tom Waddell, and Section Chief Heather Ceron,

Enclosed please find a copy of the Sierra Club and Environmental Integrity Project's Petition seeking objection to the Title V permit, I.D. No. 01-0009/567519, issued for Tennessee Valley Authority's Bull Run Fossil Plant by Tennessee Department of Environment and Conservation; also included are all exhibits cited therein.

Thank you,

/s/

Zachary M. Fabish
Staff Attorney
The Sierra Club
50 F Street NW, 8th Floor
Washington, D.C. 20001
(202) 675-7917
Zachary.fabish@sierraclub.org

BEFORE THE ADMINISTRATOR
UNITED STATES ENVIRONMENTAL PROECTION AGENCY

IN THE MATTER OF THE PROPOSED TITLE V PERMIT FOR	)	
TENNESSEE VALLEY AUTHORITY	)	PERMIT ID NO. 01-0009/567519
BULL RUN FOSSIL PLANT PROPOSED TITLE V/STATE OPERATING PERMIT IN CLINTON, TENNESSEE	)	
ISSUED BY THE TENNESSEE DEPARTMENT OF ENVIRONMENT & CONSERVATION	)	

PETITION TO OBJECT TO THE PROPOSED TITLE V PERMIT FOR TENNESSEE VALLEY AUTHORITY'S BULL RUN FOSSIL PLANT, ISSUED BY THE TENNESSEE DEPARTMENT OF ENVIRONMENT & CONSERVATION

As per Section 505 of the Clean Air Act ("CAA"), the Sierra Club and Environmental Integrity Project ("EIP") hereby respectfully petitions the Environmental Protection Agency ("EPA") to object to the proposed Title V permit issued by the Tennessee Department of Environment & Conservation ("TDEC") for Tennessee Valley Authority's ("TVA") Bull Run Fossil Plant ("Bull Run") at 1265 Edgemoor Road, Clinton, Tennessee. As discussed in comments timely filed by Sierra Club and EIP before TDEC concerning the draft permit, the Title V permit as issued contains provisions that are not in compliance with applicable requirements under the CAA, and accordingly objection by the EPA is proper. 42 U.S.C. § 7661d(b). Specifically, the permit contains impermissibly lax monitoring requirements for opacity: despite incorporating a continuous 6-minute opacity standard, the permit ascertains compliance through a biannual visual inspection. Accordingly, the EPA should object to the permit's issuance by TDEC.

I. INTRODUCTION

A. Legal Background

1. General Requirements

The Clean Air Act ("CAA") is intended to protect and enhance the public health and public welfare of the nation. *See* 42 U.S.C. § 7401(b)(1). All major stationary sources of air pollution are required to apply for operating permits under Title V of the CAA. 40 C.F.R. § 70.5(a); *see* 42 U.S.C. § 7661a(a) ("[I]t shall be unlawful . . . to operate . . . a major source . . .

except in compliance with a permit issued by a permitting authority under this subchapter."). Title V permits must provide for all federal and state regulations in one legally enforceable document, thereby ensuring that all CAA requirements are applied to the facility and that the facility is in compliance with those requirements. *See* 42 U.S.C. §§ 7661a(a) and 7661c(a); 40 C.F.R. § 70.6(a)(1). These permits must include emission limitations and other conditions necessary to assure a facility's continuous compliance with all applicable requirements of the CAA, including the requirements of any applicable state implementation plan, or SIP. *See id*. Title V permits must also contain monitoring, recordkeeping, reporting, and other requirements to assure continuous compliance by sources with emission control requirements. *See* 40 C.F.R. § 70. It is unlawful for any person to violate any requirement of a Title V operating permit. *See* 42 U.S.C. § 7661(a).

A Title V permit is issued for a term of no more than five years, 40 C.F.R. § 70.6(a)(2), with a timely and complete application for renewal filed by the source at least six months prior to the date of permit expiration. 40 C.F.R. § 70.5(a)(1)(iii). Once a complete renewal application has been submitted, the existing permit governs the source's operation until the application is acted upon by the permitting agency. *See* 40 C.F.R. § 70.7(b); 40 C.F.R. § 70.7(a)(2) ("[T]he program shall provide that the permitting authority take final action on each permit application (including a request for permit modification or renewal) within 18 months . . . after receiving a complete application."). Permit modifications and renewals are subject to the same procedural requirements, including those for public participation and federal review, which apply to initial permit issuance. *See* 40 C.F.R. § 70.7(c)(1)(i).

The EPA has delegated to Tennessee, through the Tennessee Department of Environment and Conservation ("TDEC"), the authority to administer the Title V operating permit program within the State. Title V permits issued by TDEC must include enforceable emission limitations and standards and such other conditions as are necessary to assure compliance with all applicable requirements at the time of permit issuance. *See* 42 U.S.C. § 7661c(a); 40 C.F.R. § 70.6(a)(1). "All applicable requirements" include standards or other requirements in state or federal regulations required under the CAA, including those that have been promulgated or approved by EPA through rulemaking at the time of issuance of a permit but that have future effective compliance dates, as well as standards provided for in Tennessee's SIP that are effective at the time of permit issuance. *See* 40 C.F.R. 70.2

2. Monitoring Requirements

In addition to necessary emission limitations and standards, each Title V permit must contain sufficient monitoring, recordkeeping, reporting, and inspection and entry requirements to assure compliance with those limits. *See* 40 C.F.R § 70.6(a)(1), § 70.6(a)(3), and § 70.6(c)(2). Monitoring requirements must "assure use of terms, test methods, units, averaging periods, and other statistical conventions consistent with the applicable requirement." 40 C.F.R. § 70.6(a)(3)(i)(B); 40 C.F.R. § 70.6(c)(1) (requiring "compliance certification, testing, monitoring, reporting, and recordkeeping requirements sufficient to assure compliance with the terms and conditions of the permit") (emphasis added). These monitoring requirements consist of both "periodic" and "umbrella" monitoring rules. *See generally Sierra Club v. EPA*, 536 F.3d 673 (D.C. Cir. 2011).

The periodic monitoring rule provides that where an applicable requirement does not, itself, "require periodic testing or instrumental or noninstrumental monitoring," the permit-writer must develop terms directing "periodic monitoring sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the permit." 40 C.F.R. § 70.6(a)(3)(i)(B); 40 C.F.R. § 70.6(c)(2)(iv) (requiring that substances and parameters are to be sampled and monitored at reasonable intervals so as to assure compliance with the permit or applicable requirements). In other words, if compliance with a given applicable requirement is a condition of the permit, the permit must contain monitoring of a frequency and type sufficient to assure compliance to the emitter, to the permitting authority, and to the public.

In instances where governing regulations set forth monitoring requirements inadequate to ensure compliance with certain applicable standards, the Title V permit must supplement those requirements to the extent necessary to ensure compliance with the permit's terms and conditions. This "umbrella" monitoring rule, 40 C.F.R. § 70.6(a)(3)(C), backstops the periodic requirement by making clear that permit writers must also correct "a periodic monitoring requirement inadequate to the task of assuring compliance," *Sierra Club*, 536 F.3d at 675. EPA has confirmed the rigor of Title V permit monitoring requirements. *See In re U. S. Steel Corp*., Petition No. V-2009-03, 2011 WL 3533368, at *5 (EPA Jan. 31, 2011) (concluding that "[t]he rationale for the monitoring requirements . . . must be clear and documented in the permit record" and that adequate monitoring is determined by careful, content-specific inquiry into the nature and variability of the emissions at issue); *see also* U.S. EPA, *Order Granting in Part and Denying in Part Three Petitions for Objection to Permits*, Petitions Nos. III-2012-06, III-2012-07, and III-20 13-02 (July 30, 2014) at 45.[1]

B. Factual and Procedural Background

Bull Run is a single-boiler supercritical coal-fired power plant, with a nameplate capacity of 950 megawatts. Owned and operated by TVA, Bull Run began operation in 1967, and is located in Clinton, Tennessee in Anderson County. Bull Run is a major source of air pollution, including both inhalable coarse particulate matter and fine particulate matter (PM10 and PM2.5), sulfur dioxide, nitrogen oxides, volatile organic compounds, carbon monoxide, and hazardous air pollutants (HAPs).

Bull Run's prior Title V permit was issued January 6, 2009, and expired on January 6, 2014. In January of 2015, TDEC released a draft permit document (draft Title V Permit No. 01-0009/567519, draft Title IV Acid Rain Permit No. 01-0009/869161, and Draft CAIR Permit No. 01-0009/869022) for Bull Run, based on an application received in July of 2013. Condition E 3-8 of this draft Title V permit addressed visible emissions from the plant: "Visible emissions from this fuel burning installation shall not exceed twenty (20) percent opacity except for one six (6) minute period per one (1) hour of not more than forty percent (40%) opacity." The stated "compliance method" for this emissions limitation was, in the draft permit, "determin[ation] by a certified reader using Method 9. The stack shall be evaluated biannually unless a valid reading cannot be made due to merging plumes or other reasons."

[1] *Available at* http://www.epa.gov/region7/air/title5/petitiondb/petitions/homer_response2012.pdf; hereinafter "EPA Homer City Order."

The Sierra Club and EIP (along with Southern Alliance for Clean Energy and Earthjustice) on February 12, 2015, timely submitted comments on this draft. A copy of these comments is attached hereto as Exhibit 1 (hereinafter "Sierra Club and EIP Comments"). In pertinent part, the Sierra Club and EIP noted in these comments that the draft Title V permit for Bull Run "contemplates exceedingly infrequent reporting of opacity," that "[t]his extreme infrequency is improper," and that it must "be rectified in any final permit that TDEC issues" *Id.* at 5-6.

Subsequently, TDEC issued a revised draft permit in April of 2015, with a public comment period open through May 21, 2015; in this revised draft, TDEC did not change Condition E 3-8. Sierra Club and EIP (along with Southern Alliance for Clean Energy and Earthjustice) timely submitted public comments on this new draft permit on May 21; a copy of these comments is attached hereto as Exhibit 2 (hereinafter "Sierra Club and EIP Revised Permit Comments"). In these comments, Sierra Club again argued that the proposed biannual visual inspection of opacity in the plume exiting Bull Run was insufficient for ensuring compliance with the short-term opacity standard in the permit. *See id.* at 2-3.

Thereafter, TDEC finalized the Bull Run permit, and submitted it to EPA on June 16, 2015. This final permit included the version of Condition E 3-8 from the two prior drafts, and is attached hereto as Exhibit 3. EPA's 45-day review period thus began on June 16, and expired on July 31, 2015; the 60-day public petition period will thus end on September 29, 2015, making this petition timely. *See* U.S. EPA Region 4, Proposed Title V Permits – Tennessee Proposed Title V Permits, *available at* http://www.epa.gov/region4/air/permits/tennessee.htm, attached hereto as Exhibit 4.

II. GROUNDS FOR OBJECTION TO TENNESSEE VALLEY AUTHORITY'S PROPOSED PERMIT

The Sierra Club and EIP hereby petition EPA to object to the Bull Run proposed Title V permit on the following grounds: the permit contains impermissibly lax monitoring requirements for opacity. *See* Sierra Club and EIP Comments at 5-6; Sierra Club and EIP Revised Permit Comments at 2-3. Additionally, far from justifying biannual visual inspections to evaluate compliance with a short term opacity standard, TDEC's comment response materials confirm that its approach in setting that evaluation regime is fundamentally flawed, leading to a result that does not comply with the Clean Air Act.

A. The Evaluation Requirements in the Bull Run Title V Permit for Opacity Are Impermissibly Lax

TDEC's Bull Run Title V permit improperly contemplates opacity compliance being assessed twice a year through visual emissions inspection, despite the applicable requirements setting short-term limitations on opacity (opacity must never exceed 20%, except for periods of no more than six minutes occurring no more frequently than once per hour, and even then not to exceed 40% opacity). *See* Bull Run Title V permit at Condition E 3-8. TDEC is obligated under the Clean Air Act and Title V implementing regulations to ensure that compliance assessments

are designed to adequately and accurately assure compliance with applicable requirements; semiannual visual inspections, amounting to observation during less than a tenth of a percent of Bull Run's operating time, are simply not adequate.[2]

As noted in both the Sierra Club and EIP Comments and Sierra Club and EIP Revised Permit Comments, each Title V permit must contain sufficient monitoring, recordkeeping, reporting, and inspection and entry requirements to assure compliance with emission limits. *See* 40 C.F.R § 70.6(a)(1), § 70.6(a)(3), and § 70.6(c)(2). Monitoring requirements must "assure use of terms, test methods, units, averaging periods, and other statistical conventions consistent with the applicable requirement." 40 C.F.R. § 70.6(a)(3)(i)(B); 40 C.F.R. § 70.6(c)(1) (requiring "compliance certification, testing, monitoring, reporting, and recordkeeping requirements sufficient to assure compliance with the terms and conditions of the permit") (emphasis added). These monitoring requirements consist of both "periodic" and "umbrella" monitoring rules. *See generally Sierra Club v. EPA*, 536 F.3d 673 (D.C. Cir. 2011).

The periodic monitoring rule provides that where an applicable requirement does not, itself, "require periodic testing or instrumental or noninstrumental monitoring," the permit-writer must develop terms directing "periodic monitoring sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the permit." 40 C.F.R. § 70.6(a)(3)(i)(B); 40 C.F.R. § 70.6(c)(2)(iv) (requiring that substances and parameters are to be sampled and monitored at reasonable intervals so as to assure compliance with the permit or applicable requirements). In other words, if compliance with a given applicable requirement is a condition of the permit, the permit must contain monitoring of a frequency and type sufficient to assure compliance to the emitter, to the permitting authority, and to the public.

In instances where governing regulations set forth monitoring requirements inadequate to ensure compliance with certain applicable standards, the Title V permit must supplement those requirements to the extent necessary to ensure compliance with the permit's terms and conditions. This "umbrella" monitoring rule, 40 C.F.R. § 70.6(a)(3)(C), backstops the periodic requirement by making clear that permit writers must also correct "a periodic monitoring requirement inadequate to the task of assuring compliance," *Sierra Club*, 536 F.3d at 675. EPA has confirmed the rigor of Title V permit monitoring requirements. *See In re U. S. Steel Corp*., Petition No. V-2009-03, 2011 WL 3533368, at *5 (EPA Jan. 31, 2011) (concluding that "[t]he rationale for the monitoring requirements . . . must be clear and documented in the permit record" and that adequate monitoring is determined by careful, content-specific inquiry into the nature and variability of the emissions at issue); *see also* EPA Homer City Order.[3]

Here, TDEC's election to require visual inspections *just twice a year* to evaluate an opacity limitation for Bull Run that could be violated in as little time as *six minutes* plainly and egregiously fails the Clean Air Act requirement that such monitoring be "sufficient to yield reliable data . . . that are representative of the source's compliance with the permit." EPA should object to the Bull Run Title V permit on these grounds.

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[2] This is particularly the case given that continuous opacity monitoring technology is readily available, and is indeed already installed at Bull Run, as discussed more below.

[3] *Available at* http://www.epa.gov/region7/air/title5/petitiondb/petitions/homer_response2012.pdf; hereinafter "EPA Order."

B. TDEC's Comment Response Fails to Validate the Bull Run Permit's Impermissibly Lax Opacity Evaluation Requirements

In face of this, and in response to Sierra Club and EIP's comments, TDEC makes two arguments, both of which fail.

First, TDEC attempts to argue that 40 C.F.R. § 70.6 only requires the permit writer to include monitoring sufficient to yield reliable data that are representative of the source's compliance "if the applicable requirement does not require periodic testing" or monitoring (emphasis in original). TDEC Title V Permit Statement (Aug. 7, 2015) at 6.[4] In TDEC's mind, if an applicable requirement includes a requirement for any sort of "periodic" evaluation, then that "requirement to conduct . . . evaluations . . . meets the requirements of § 70.6(a)(3)." *Id.* TDEC thus—erroneously—concludes that because "periodic" evaluation in the form of "visible emissions evaluations biannually" is present in the opacity applicable requirement, that "periodic" evaluation is sufficient. *Id.* However, TDEC's argument has already been roundly rejected by the D.C. Circuit in *Sierra Club v. EPA.*

In *Sierra Club*, the Court considered the very question of whether or not permitting authorities were precluded from developing appropriate monitoring regimes, even where there were specified monitoring requirements flowing from extant regulations that are nonetheless inadequate to ensure compliance.[5] There, contrary to the position TDEC takes now, the Court resoundingly determined that the permit writer "must fix these inadequate monitoring requirements." 536 F.3d at 678. Reading the plain language of the Clean Air Act itself, the Court determined that, under Title V, "[e]ach permit . . . shall set forth . . . monitoring . . . requirements to assure compliance with the permit terms and conditions." *Id.* at 677 (quoting 42 U.S.C. § 7661c(c)). Thus, the Court reasoned that "Title V requires that every one of the permits issued by permitting authorities include adequate monitoring requirements." *Id.* at 678 (internal citations omitted).[6] Characterizing this as the "each permit" mandate, the Court then looked to the implementing regulations for Title V, noting that while subsections 70.6(a)(3)(i)(A) and (B) do not explicitly require gap-filling to assure monitoring regimes are sufficient, subsection 70.6(c) does:

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[4] Attached hereto as Exhibit 5. TDEC made almost identical arguments in an earlier comment response document responding to comments received on the initial draft of the Bull Run Title V permit.

[5] As the Court put it: "[H]ow should a permitting authority respond to an emission standard that has a periodic monitoring requirement inadequate to the task of assuring compliance? . . . Where *annual* testing cannot assure compliance with a *daily* emission limit, may the permitting authority supplement the monitoring requirement 'to assure compliance with the permit terms and conditions,' as the Act commands?" 536 F.3d at 675. The court answered its question by finding that, yes, the permitting authority must so supplement. *Id.*

[6] Tellingly, TDEC nowhere argues that biannual visual inspections are adequate to ensure compliance with a six-minute standard. Nor could it. Plainly, looking at the plume emitted from a smokestack once every six months fails to tell either the emitter, TDEC, members of the public, or EPA anything about whether or not the facility had complied or failed to comply with a six-minute standard over the preceding 26,280 six-minute increments from the previous half-year.

> To save § 70.6(c)(1) from becoming surplusage, we must interpret the provision to require something beyond what is already required by § 70.6(a)(3)(i)(A) and § 70.6(a)(3)(i)(B). The most reasonable reading is that it serves as a gap-filler to those provisions. In other words, § 70.6(c)(1) ensures that all Title V permits include monitoring requirements "sufficient to assure compliance with the terms and conditions of the permit," even when § 70.6(a)(3)(i)(A) and § 70.6(a)(3)(i)(B) are not applicable. This reading provides precisely what we have concluded the Act requires: a permitting authority may supplement an inadequate monitoring requirement so that the requirement will "assure compliance with the permit terms and conditions."

Id. at 680. Accordingly, TDEC's argument that the presence of a requirement for biannual visual inspections in its opacity regulation relieves it from the obligation to assure compliance with that regulation fails.

Second, TDEC makes the additional argument that biannual visual inspections are appropriate because, although Bull Run is equipped with a continuous opacity monitoring system, or COMS, that COMS is installed "between the [electrostatic precipitator, a device for controlling particulate matter] and the wet scrubber," and thus would not yield accurate data about the compliance of Bull Run with the opacity standard. TDEC Title V Permit Statement (Aug. 7, 2015) at 6. However, the apparent failure of TVA to install COMS at a point at which it would provide useful information about permit compliance simply does not excuse TDEC from its obligation to assure compliance with the permit terms and conditions. Indeed, to do so would create perverse incentives on the part of regulated major sources to deliberately install monitoring equipment in improper places. Rather, TDEC still must include in the Bull Run Title V permit a set of monitoring requirements sufficient to assure that TVA, TDEC, the public, and EPA are able to ascertain whether or not Bull Run is complying with its permit. The fact that Bull Run actually *has* equipment to continuously monitor its opacity (albeit in the wrong place) and thereby could readily provide information detailing its compliance with the six-minute opacity standard is, contrary to TDEC's assertion, a powerful testament to the conclusion that the Bull Run Title V permit should require such continuous monitoring. Having COMS in the wrong place does not negate TDEC's obligation to require COMS in the right place. Accordingly, EPA should object to TDEC's permit.[7]

III. CONCLUSION

For the reasons cited above, the Sierra Club respectfully requests that the Administrator of the EPA grant this Petition to Object to the Bull Run Title V Permit and order TDEC to include in a new permit more frequent monitoring provisions to assure compliance with the permit's opacity limits, namely continuous opacity monitoring.

[7] TDEC makes the further sweeping claim that perhaps EPA's adoption of CAM requirements to address "any monitoring deficiencies," while ignoring the reality that nothing in any CAM plan for Bull Run assures opacity compliance. TDEC Title V Permit Statement (Aug. 7, 2015) at 6. TDEC also appears to agree that its CAM plan argument has no bearing: it also admits that "the applicability of MATS requirements . . . renders the CAM requirements obsolete." *Id.*

Respectfully submitted on September 29, 2015,

/s/

Zachary M. Fabish
Staff Attorney
The Sierra Club
50 F Street NW, 8th Floor
Washington, D.C. 20001
(202) 675-7917
Zachary.fabish@sierraclub.org

Abel Russ
Attorney
Environmental Integrity Project
1000 Vermont Avenue NW, Suite 1100
Washington, D.C. 20005
(802) 662 7800
Aruss@environmentalintegrity.org