## BEFORE THE ADMINISTRATOR UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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IN THE MATTER OF
UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL
ORANGE COUNTY, NORTH CAROLINA PERMIT NO. 03069T36
ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY DIVISION OF AIR QUALITY

PETITION NO. IV-2021-11

ORDER RESPONDING TO PETITION REQUESTING OBJECTION TO THE ISSUANCE OF TITLE V OPERATING PERMIT

## **ORDER DENYING A PETITION FOR OBJECTION TO PERMIT**

## I. INTRODUCTION

The U.S. Environmental Protection Agency (EPA) received a petition dated October 1, 2021 (the Petition) from the Center for Biological Diversity, Sierra Club, and the Town of Carrboro, North Carolina (the Petitioners), pursuant to section 505(b)(2) of the Clean Air Act (CAA or Act), 42 United States Code (U.S.C.) § 7661d(b)(2). The Petition requests that EPA Administrator object to the final operating permit No. 03069T36 (the Permit or Final Permit) issued by the North Carolina Department of Environmental Quality, Division of Air Quality (DAQ) to the University of North Carolina at Chapel Hill (UNC-CH or the facility) in Orange County, North Carolina. The operating permit was issued pursuant to title V of the CAA, 42 U.S.C. §§ 7661–7661f, and N.C. Gen. Stat. § 143-215.112, and 15A N.C.A.C. 2Q.0500.-0528. *See also* 40 Code of Federal Regulations (C.F.R.) part 70 (title V implementing regulations). This type of operating permit is also referred to as a title V permit or part 70 permit.

Based on a review of the Petition and other relevant materials, including the Permit, the permit record, and relevant statutory and regulatory authorities, and as explained in Section IV of this Order, EPA denies the Petition requesting that EPA Administrator object to the Permit.

# II. STATUTORY AND REGULATORY FRAMEWORK

## A. Title V Permits

Section 502(d)(l) of the CAA, 42 U.S.C. § 766la(d)(1), requires each state to develop and submit to EPA an operating permit program to meet the requirements of title V of the CAA and EPA's implementing regulations at 40 C.F.R. part 70. The state of North Carolina submitted a title V program governing the issuance of operating permits on November 12, 1993. EPA granted interim approval in 1995 and full approval of North Carolina's title V operating permit program

in 2001. 60 Fed. Reg. 57357 (November 15, 1995); 66 Fed. Reg. 45941 (August 31, 2001). This program, which became effective on October 1, 2001, is codified in 15A N.C.A.C. 2Q.0500.

All major stationary sources of air pollution and certain other sources are required to apply for and operate in accordance with title V operating permits that include emission limitations and other conditions as necessary to assure compliance with applicable requirements of the CAA, including the requirements of the applicable implementation plan. 42 U.S.C. §§ 7661a(a), 7661b, 7661c(a). The title V operating permit program generally does not impose new substantive air quality control requirements, but does require permits to contain adequate monitoring, recordkeeping, reporting, and other requirements to assure compliance with applicable requirements. 57 Fed. Reg. 32250, 32251 (July 21, 1992); *see* 42 U.S.C. § 7661c(c). One purpose of the title V program is to "enable the source, States, EPA, and the public to understand better the requirements to which the source is subject, and whether the source is meeting those requirements." 57 Fed. Reg. at 32251. Thus, the title V operating permit program is a vehicle for compiling the air quality control requirements as they apply to the source's emission units and for providing adequate monitoring, recordkeeping, and reporting to assure compliance with such requirements.

# **B.** Review of Issues in a Petition

State and local permitting authorities issue title V permits pursuant to their EPA-approved title V programs. Under CAA § 505(a) and the relevant implementing regulations found at 40 C.F.R. § 70.8(a), states are required to submit each proposed title V operating permit to EPA for review. 42 U.S.C. § 7661d(a). Upon receipt of a proposed permit, EPA has 45 days to object to final issuance of the proposed permit if EPA determines that the proposed permit is not in compliance with applicable requirements under the Act. 42 U.S.C. § 7661d(b)(1); *see also* 40 C.F.R. § 70.8(c). If EPA does not object to a permit on its own initiative, any person may, within 60 days of the expiration of EPA's 45-day review period, petition the Administrator to object to the permit. 42 U.S.C. § 7661d(b)(2); 40 C.F.R. § 70.8(d).

Each petition must identify the proposed permit on which the petition is based and identify the petition claims. 40 C.F.R. § 70.12(a). Any issue raised in the petition as grounds for an objection must be based on a claim that the permit, permit record, or permit process is not in compliance with applicable requirements or requirements under part 70. 40 C.F.R. § 70.12(a)(2). Any arguments or claims the petitioner wishes EPA to consider in support of each issue raised must generally be contained within the body of the petition.<sup>1</sup> *Id*.

The petition shall be based only on objections to the permit that were raised with reasonable specificity during the public comment period provided by the permitting authority (unless the petitioner demonstrates in the petition to the Administrator that it was impracticable to raise such objections within such period or unless the grounds for such objection arose after such period). 42 U.S.C. § 7661d(b)(2); 40 C.F.R. § 70.8(d); *see also* 40 C.F.R. § 70.12(a)(2)(v).

<sup>&</sup>lt;sup>1</sup> If reference is made to an attached document, the body of the petition must provide a specific citation to the referenced information, along with a description of how that information supports the claim. In determining whether to object, the Administrator will not consider arguments, assertions, claims, or other information incorporated into the petition by reference. *Id*.

In response to such a petition, the Act requires the Administrator to issue an objection if a petitioner demonstrates that a permit is not in compliance with the requirements of the Act. 42 U.S.C. § 7661d(b)(2); 40 C.F.R. § 70.8(c)(1).<sup>2</sup> Under section 505(b)(2) of the Act, the burden is on the petitioner to make the required demonstration to EPA.<sup>3</sup> The petitioner's demonstration burden is a critical component of CAA § 505(b)(2). As courts have recognized, CAA § 505(b)(2) contains both a "discretionary component," under which the Administrator determines whether a petition demonstrates that a permit is not in compliance with the requirements of the Act, and a nondiscretionary duty on the Administrator's part to object where such a demonstration is made. Sierra Club v. Johnson, 541 F.3d at 1265-66 ("[I]t is undeniable [that CAA § 505(b)(2)] also contains a discretionary component: it requires the Administrator to make a judgment of whether a petition demonstrates a permit does not comply with clean air requirements."); NYPIRG, 321 F.3d at 333. Courts have also made clear that the Administrator is only obligated to grant a petition to object under CAA § 505(b)(2) if the Administrator determines that the petitioner has demonstrated that the permit is not in compliance with requirements of the Act. Citizens Against Ruining the Environment, 535 F.3d at 677 (stating that § 505(b)(2) "clearly obligates the Administrator to (1) determine whether the petition demonstrates noncompliance and (2) object if such a demonstration is made" (emphasis added)).<sup>4</sup> When courts have reviewed EPA's interpretation of the ambiguous term "demonstrates" and its determination as to whether the demonstration has been made, they have applied a deferential standard of review. See, e.g., *MacClarence*, 596 F.3d at 1130–31.<sup>5</sup> Certain aspects of the petitioner's demonstration burden are discussed in the following paragraph. A more detailed discussion can be found in the preamble to EPA's proposed petitions rule. See 81 Fed. Reg. 57822, 57829-31 (August 24, 2016); see also In the Matter of Consolidated Environmental Management, Inc., Nucor Steel Louisiana, Order on Petition Nos. VI-2011-06 and VI-2012-07 at 4-7 (June 19, 2013) (Nucor II Order).

EPA considers a number of criteria in determining whether a petitioner has demonstrated noncompliance with the Act. *See generally Nucor II Order* at 7. For example, one such criterion is whether a petitioner has provided the relevant analyses and citations to support its claims. For each claim, the petitioner must identify (1) the specific grounds for an objection, citing to a specific permit term or condition where applicable; (2) the applicable requirement as defined in 40 C.F.R. § 70.2, or requirement under part 70, that is not met; and (3) an explanation of how the term or condition in the permit, or relevant portion of the permit record or permit process, is not adequate to comply with the corresponding applicable requirement or requirement under part 70. 40 C.F.R. § 70.12(a)(2)(i)–(iii). If a petitioner does not identify these elements, EPA is left to work out the basis for the petitioner's objection, contrary to Congress's express allocation of the burden of demonstration to the petitioner in CAA § 505(b)(2). *See MacClarence*, 596 F.3d at

<sup>&</sup>lt;sup>2</sup> See also New York Public Interest Research Group, Inc. v. Whitman, 321 F.3d 316, 333 n.11 (2d Cir. 2003) (*NYPIRG*).

<sup>&</sup>lt;sup>3</sup> WildEarth Guardians v. EPA, 728 F.3d 1075, 1081–82 (10th Cir. 2013); MacClarence v. EPA, 596 F.3d 1123, 1130–33 (9th Cir. 2010); Sierra Club v. EPA, 557 F.3d 401, 405–07 (6th Cir. 2009); Sierra Club v. Johnson, 541 F.3d 1257, 1266–67 (11th Cir. 2008); Citizens Against Ruining the Environment v. EPA, 535 F.3d 670, 677–78 (7th Cir. 2008); cf. NYPIRG, 321 F.3d at 333 n.11.

<sup>&</sup>lt;sup>4</sup> See also Sierra Club v. Johnson, 541 F.3d at 1265 ("Congress's use of the word 'shall' . . . plainly mandates an objection whenever a petitioner demonstrates noncompliance." (emphasis added)).

<sup>&</sup>lt;sup>5</sup> See also Sierra Club v. Johnson, 541 F.3d at 1265–66; Citizens Against Ruining the Environment, 535 F.3d at 678.

1131 ("[T]he Administrator's requirement that [a title V petitioner] support his allegations with legal reasoning, evidence, and references is reasonable and persuasive.").<sup>6</sup> Relatedly, EPA has pointed out in numerous previous orders that general assertions or allegations did not meet the demonstration standard. *See, e.g., In the Matter of Luminant Generation Co., Sandow 5 Generating Plant*, Order on Petition Number VI-2011-05 at 9 (January 15, 2013).<sup>7</sup> Also, the failure to address a key element of a particular issue presents further grounds for EPA to determine that a petitioner has not demonstrated a flaw in the permit. *See, e.g., In the Matter of EME Homer City Generation LP and First Energy Generation Corp.*, Order on Petition Nos. III-2012-06, III-2012-07, and III-2013-02 at 48 (July 30, 2014).<sup>8</sup>

Another factor EPA examines is whether the petitioner has addressed the state or local permitting authority's decision and reasoning contained in the permit record. 81 Fed. Reg. at 57832; *see Voigt v. EPA*, 46 F.4th 895, 901-902 (8<sup>th</sup> Cir. 2022); *MacClarence*, 596 F.3d at 1132–33.<sup>9</sup> This includes a requirement that petitioners address the permitting authority's final decision and final reasoning (including the state's response to comments) where these documents were available during the timeframe for filing the petition. 40 C.F.R. § 70.12(a)(2)(vi). Specifically, the petition must identify where the permitting authority responded to the public comment and explain how the permitting authority's response is inadequate to address (or does not address) the issue raised in the public comment. *Id*.

The information that EPA considers in making a determination whether to grant or deny a petition submitted under 40 C.F.R. § 70.8(d) generally includes, but is not limited to, the administrative record for the proposed permit and the petition, including attachments to the petition. 40 C.F.R. § 70.13. The administrative record for a particular proposed permit includes the draft and proposed permits; any permit applications that relate to the draft or proposed permits; the statement required by § 70.7(a)(5) (sometimes referred to as the 'statement of basis'); any comments the permitting authority received during the public participation process on the draft permit; the permitting authority's written responses to comments, including responses to all significant comments raised during the public participation process on the draft permit; and all materials available to the permitting authority that are relevant to the permitting

<sup>&</sup>lt;sup>6</sup> See also In the Matter of Murphy Oil USA, Inc., Order on Petition No. VI-2011-02 at 12 (September 21, 2011) (denying a title V petition claim where petitioners did not cite any specific applicable requirement that lacked required monitoring); In the Matter of Portland Generating Station, Order on Petition at 7 (June 20, 2007) (Portland Generating Station Order).

 <sup>&</sup>lt;sup>7</sup> See also Portland Generating Station Order at 7 ("[C]onclusory statements alone are insufficient to establish the applicability of [an applicable requirement]."); In the Matter of BP Exploration (Alaska) Inc., Gathering Center #1, Order on Petition Number VII-2004-02 at 8 (April 20, 2007); Georgia Power Plants Order at 9–13; In the Matter of Chevron Products Co., Richmond, Calif. Facility, Order on Petition No. IX-2004-10 at 12, 24 (March 15, 2005).
<sup>8</sup> See also In the Matter of Hu Honua Bioenergy, Order on Petition No. IX-2011-1 at 19–20 (February 7, 2014); Georgia Power Plants Order at 10.

<sup>&</sup>lt;sup>9</sup> See also, e.g., Finger Lakes Zero Waste Coalition v. EPA, 734 Fed. App'x \*11, \*15 (2d Cir. 2018) (summary order); In the Matter of Noranda Alumina, LLC, Order on Petition No. VI-2011-04 at 20–21 (December 14, 2012) (denying a title V petition issue where petitioners did not respond to the state's explanation in response to comments or explain why the state erred or why the permit was deficient); In the Matter of Kentucky Syngas, LLC, Order on Petition No. IV-2010-9 at 41 (June 22, 2012) (denying a title V petition issue where petitioners did not acknowledge or reply to the state's response to comments or provide a particularized rationale for why the state erred or the permit was deficient); Georgia Power Plants Order at 9–13 (denying a title V petition issue where petitioners did not address a potential defense that the state had pointed out in the response to comments).

decision and that the permitting authority made available to the public according to § 70.7(h)(2). *Id.* If a final permit and a statement of basis for the final permit are available during the agency's review of a petition on a proposed permit, those documents may also be considered when making a determination whether to grant or deny the petition. *Id.* 

# III. BACKGROUND

## A. The University of North Carolina at Chapel Hill Facility

The UNC-CH is a non-profit educational public university located in Chapel Hill, Orange County, North Carolina. The university maintains and operates a 760-acre campus that consists of both combustion and non-combustion sources. The university's primary sources of regulated air pollutant emissions are a co-generation facility, a Steam Plant, and a landfill gas flare at the landfill. Combustion sources include boilers, hot water heaters, emergency generators, and fire pumps. Non-combustion sources include coal handling, crushing and storage equipment, ash handling, storage and loading equipment, and storage tanks. Regulated air pollutant emissions from the facility include sulfur dioxide (SO<sub>2</sub>), nitrogen oxides (NO<sub>X</sub>), volatile organic compounds (VOCs), carbon monoxide (CO), particulate matter of 10 microns or less (PM<sub>10</sub>), and hazardous air pollutants (HAPs).

The university is an existing major stationary source and is subject to multiple programs under the CAA including various New Source Performance Standards (NSPS), National Emissions Standards for Hazardous Air Pollutants (NESHAP), Prevention of Significant Deterioration (PSD), other requirements of the North Carolina SIP, and the title V permitting program. Boilers of the co-generation facility (ID No. ES-001-Boiler#6 and ES-002-Boiler#7) are equipped with dry sorbent injection systems, bag filters, and calcium carbonate injection systems as air pollution control systems for acid gases, such as HCl, mercury (Hg), other hazardous metals, and particulate matter (PM). Emergency and non-emergency generators, as well as fire pumps, are not equipped with control devices.

EPA conducted an analysis using EPA's EJScreen<sup>10</sup> to assess key demographic and environmental indicators within a five-kilometer radius of UNC-CH. This analysis showed a total population of approximately 71,997 residents within a five-kilometer radius of the facility, of which approximately 31 percent are people of color and 35 percent are low income. In addition, EPA reviewed the EJScreen Environmental Justice Indices, which combine certain demographic indicators with 12 environmental indicators. Of the 12 Environmental Justice Indices in this five-kilometer area, Underground Storage Tanks and Traffic Proximity exceeded the 70th percentile in the State of North Carolina and the Hazardous Waste Proximity index exceeded the 60th percentile. The remaining nine indices were all below the 60th percentile.

<sup>&</sup>lt;sup>10</sup> EJScreen is an environmental justice mapping and screening tool that provides EPA with a nationally consistent dataset and approach for combining environmental and demographic indicators. *See https://www.epa.gov/ejscreen/what-ejscreen.* 

## **B.** Permitting History

The UNC-CH first obtained a title V permit on October 2, 2006, which was subsequently renewed. On May 18, 2015, July 24, 2015, March 19, 2018, and June 5, 2019, UNC-CH submitted applications for a significant modification, renewal, and two minor modifications of the title V permit. On September 25, 2018, DAQ published notice of a draft renewal permit incorporating changes requested in all four applications, subject to a public comment period that ran until October 25, 2018. During the public comment period, DAQ received requests to extend the public comment period and received SO<sub>2</sub> and NO<sub>x</sub> air dispersion modeling from the Center for Biological Diversity. In order to review and consider the modeling report and public comments, DAQ decided not to finalize this draft permit. Over the next year, DAQ worked with UNC-CH to conduct its own modeling analysis, which was accepted from UNC-CH on March 26, 2019. On March 31, 2021, DAQ published notice of a new draft permit (Draft Permit 03069T36) with a public comment period running from March 31, 2021 until May 6, 2021 and a public hearing to be held on May 4, 2021. On June 18, 2021, DAQ submitted Draft Permit 03069T36 to EPA for its 45-day review (Proposed Permit), together with DAQ's responses to public comments (RTC). EPA's 45-day review period ended on August 2, 2021, during which time EPA did not object to the Proposed Permit. DAQ issued the Final Permit for UNC-CH on August 5, 2021.

# C. Timeliness of Petition

Pursuant to the CAA, if EPA does not object to a proposed permit during its 45-day review period, any person may petition the Administrator within 60 days after the expiration of the 45-day review period to object. 42 U.S.C § 7661d(b)(2). EPA's 45-day review period expired on August 2, 2021. EPA's website indicated that any petition seeking EPA's objection to the title V permit would be due on or before October 4, 2021. The Petition was received on October 1, 2021, and, therefore, EPA finds that the Petitioners timely filed the Petition.

# IV. DETERMINATIONS ON CLAIMS RAISED BY THE PETITIONERS

# Claim A.1: The Petitioners Claim That "DAQ's Modeling Does Not Support the Permit's SO<sub>2</sub> and NO<sub>2</sub> Emission Limits."

*Petitioners' Claim:* The Petitioners claim that the Final Permit fails to include adequate emission limits to assure compliance with the 2010 1-hour SO<sub>2</sub> and 2010 1-hour NO<sub>2</sub> National Air Quality Standards (NAAQS) as required by State Implementation Plan (SIP) provisions in title 15A, chapter 02, subchapter D, sections .0501(c) and .0401(c) of the North Carolina Administrative Code (15A N.C.A.C. 02D .0501(c) and 15A N.C.A.C. 02D .0401(c)). Petition at 8. Specifically, the Petitioners assert that the SO<sub>2</sub> and NO<sub>2</sub> emission limits in the Final Permit are inadequate to assure compliance with the NAAQS because they are based on flawed modeling assumptions concerning heat input. *Id.* at 6. For example, the Petitioners contend that DAQ's projected 290.9 lb/hour SO<sub>2</sub> emissions rate for two co-generation boilers at the facility, Boiler #6 (ID No. ES-001-Boiler #7), was based on modeling that was flawed because it assumed an "unrealistically low" heat input rate of 323.17 MMBtu/hour, when in fact both boilers have frequently operated at higher heat input rates potentially as high as 384

MMBtu/hour. Id. at 7–8. The Petitioners claim that, because 384 MMBtu/hour represents a 19% increase in heat input over 323.17 MMBtu/hour, SO<sub>2</sub> emissions from Boiler #6 and Boiler #7 can be 19% higher on a lb/hour basis than the emissions rate that DAQ projected. Id. at 7. Specifically, the Petitioners state that "under DAQ's assumed 323.17 MMbtu/hour heat input, units #6 and #7 could emit under the Permit's 0.45 lbs SO<sub>2</sub>/MMbtu limit 290.9 lbs of SO<sub>2</sub> per hour, but if the units operated at a heat input of 323 MMbtu/hour,<sup>11</sup> they could emit 346 lbs SO<sub>2</sub>/hour while 'complying' with that same Permit limit." Id. at 7-8. The Petitioners further claim that they commissioned their own aerial dispersion modeling using the same parameters used by DAQ except for the heat input rate, for which Petitioners used 384 MMBtu/hour, and that according to these modeling results the Final Permit's SO<sub>2</sub> and NO<sub>2</sub> emission limits "allowed significant exceedances of both the SO2 and NO2 NAAQS." Id. at 8. According to the Petitioners, without appropriate limits on heat input or total hourly mass of pollution emitted, the Final Permit's SO<sub>2</sub> and NO<sub>2</sub> emissions limits are "incompatible with" the SIP-approved requirements at 15A NCAC 02D .0501(c) and 15A NCAC 02D .0401(c). Id. The Petitioners note that they raised this issue during the public comment period on Draft Permit 03069T36, objecting to DAQ's removal of the heat input rates that had been identified in the header for the prior permit's conditions for Boiler #6 and Boiler #7. Id.<sup>12</sup>

Additionally, the Petitioners claim that the Final Permit's SO<sub>2</sub> limit of 0.41 lbs/MMBtu over a 30-day rolling average does not assure compliance with the 1-hour SO<sub>2</sub> NAAQS and increases the risk of short-term exposure health impacts. *Id.* at 8–9. The Petitioners contend that although spikes in emissions "could cause short term elevations in ambient SO<sub>2</sub> levels sufficient to violate the NAAQS," the 30-day averaging period in this permit condition allows UNC-CH to average these emissions out over longer periods such that the Final Permit is "complied" with. *Id.* at 9. The Petitioners cite to two EPA comment letters on permits for power plant projects to support their claim that an emission limit with an averaging period longer than 1-hour is insufficient to assure compliance with the 1-hour SO<sub>2</sub> NAAQS. *Id.* at 9–10 (citing EPA Region 7, Comments on Sunflower Holcomb Station Expansion Project 4 (August 12, 2010) and EPA Region 5, Comments on Monroe Power Plant Construction Permit 1 (February 1, 2012)). The Petitioners note that they raised this issue during the public comment period on Draft Permit 03069T36, citing EPA guidance on implementation of the 1-hour SO<sub>2</sub> NAAQS for the PSD program to support their objection to the Permit's 30-day averaging period for the SO<sub>2</sub> limit. *Id.* at 3–4.

*EPA's Response:* For the following reasons, EPA denies the Petitioners' request for an objection on this claim.

Relevant North Carolina SIP Provisions

15A N.C.A.C. 02D .0401(c) states:

<sup>&</sup>lt;sup>11</sup> EPA notes that the Petitioners confusingly state that 323 MMbtu/hour would lead to higher emissions of SO<sub>2</sub> than the state modeled 324.17 MMbtu/hour. Elsewhere in the Petition, the Petitioners refer to 384 MMbtu/hour leading to higher emissions of SO<sub>2</sub>.

<sup>&</sup>lt;sup>12</sup> Letter dated May 6, 2021, from Center for Biological Diversity to DAQ, RE: "Comments on Title V permit renewal and amendments for The University Of North Carolina at Chapel Hill, 1120 Estes Drive Extension, Chapel Hill, North Carolina 27599-1650, Orange County, Application ID: 6800043.15A, .15B and 18A, Permit No.: 03069T36" (CBD Comment) at 5.

No facility or source of air pollution shall cause any ambient air quality standard in this Section to be exceeded or contribute to a violation of any ambient air quality standard in this Section.

#### 15A N.C.A.C. 02D .0501(c) states:

In addition to any control or manner of operation necessary to meet emission standards in this Section, any source of air pollution shall be operated with such control or in such manner that the source shall not cause the ambient air quality standards pursuant to 15A NCAC 02D .0400 to be exceeded at any point beyond the premises on which the source is located. When controls more stringent than those named in the applicable emission standards in this Section are required to prevent violation of the ambient air quality standards or are required to create an offset, the permit shall contain a condition requiring these controls.

#### DAQ's Responses

In response to the public comments regarding the stringency of the  $SO_2$  emission limit of 0.41 lb/MMBtu, DAQ explained in part:

The 0.41 lb/MMBtu limit is based on following Section V.D.2 ("Averaging times for SO2 emission limits") and Appendices B and C of the following EPA guidance document: *EPA*, 2014. Guidance for 1-Hour SO2 Nonattainment Area SIP Submissions. Stephen D. Page Memorandum, dated April 23, 2014. To: Regional Air Directors, Regions 1 - 10. U.S. EPA Office of Air Quality Planning and Standards. Research Triangle Park, NC. ...

Section V.D.2 of the guidance document provides background discussions and a narrative of the applicability and purpose of the guidance within the context of the 1-hour SO<sub>2</sub> NAAQS. Appendix B documents EPA's own analyses and case studies in comparing the stringency of a 1-hour average to a longer-term averaging period (such as a 30-day rolling average) SO<sub>2</sub> limit (lb/hr or lb/MMBtu) for demonstrating modeled compliance with the 1-hour SO<sub>2</sub> NAAQS. Appendix C shows example calculations and steps for several existing sources where a 30-day rolling average limit to demonstrate compliance with the 1-hour SO<sub>2</sub> NAAQS and attainment. ...

The modeling provided by UNC-CH shows that the 0.45 lb SO<sub>2</sub>/MMBtu (290.9 lbs/hr total from Boilers #6 and #7 (with model impact of 174.3  $\mu$ g/m<sup>3</sup>) plus background (15.7  $\mu$ g/m<sup>3</sup>) for Boilers #6 and #7 would not cause a violation of the 1-hour SO<sub>2</sub> NAAQS (190 ug/m<sup>3</sup> total is less than the 196 ug/m3 NAAQS). The 0.41 lb/MMBtu permit limit as determined by following EPA guidance cited above provides an additional margin of safety, or layer of conservatism for [Boiler #6 and Boiler #7] to account for the stringency of the 1-hour emission limitation within the context of the 99th percentile 3-year form of the 1-hour SO<sub>2</sub>

NAAQS. In other words, the model impacts using the 0.41 lb/MMBtu x 323.17 MMBtu/hr = 267.0 lbs/hr SO<sub>2</sub> effective limit would be approximately 10% less (i.e., 170  $\mu$ g/m<sup>3</sup>) than those impacts modeled by UNC-CH for [Boiler #6 and Boiler #7].

Furthermore, there is additional conservatism provided by the unadjusted friction velocity applied in the hourly meteorology used in the 1-hour SO<sub>2</sub> (and NO<sub>2</sub>) UNC-CH modeling demonstrations. The adjusted friction velocity option is supported as a regulatory option by EPA to address AERMOD overpredictions of model impacts during hours and periods of time with low-winds. Application of this adjusted friction velocity option typically results in refinements in AERMOD concentration predictions reduced by as much as 10-30%. Therefore, the UNC-CH NAAQS modeling is conservative both in terms of meteorology and acceptance of the 0.41 lb/MMBtu 30-day rolling average permit limit for [Boiler #6 and Boiler #7].

## RTC at 9–11.

## EPA's Analysis

The Petitioners have failed to address the state's final reasoning provided in the RTC as necessary to satisfy the requirements for public petitions in 40 C.F.R. § 70.12(a). Subparagraph (vi) of 40 C.F.R. § 70.12(a)(2) requires, *inter alia*, that a petition either "identify where the permitting authority responded to the public comment, including page number(s) in the publicly available written response to comment, and explain how the permitting authority's response to the comment is inadequate to address the issue raised in the public comment" or, "[i]f the response to comment does not address the public comment at all," state so.<sup>13</sup> The Petitioners neither explain how the responses that DAQ provided in the RTC are inadequate nor state that the RTC does not address the comments.

Specifically, in response to the Petitioners' comments on the SO<sub>2</sub> emission limit in Draft Permit 03069T36 and the heat input rate used in the modeling, DAQ explained the basis for its conclusion that an SO<sub>2</sub> emission limit of 0.41 lb/MMBtu, though averaged over 30 days, is comparable in stringency to a 1-hour emissions limit and would assure compliance with the 1-hour SO<sub>2</sub> NAAQS. *See* RTC at 9–11. Further, DAQ explained that its modeling and calculations in support of this conclusion are generally consistent with the recommendations in EPA's April 2014 guidance entitled "Guidance for 1-Hour SO<sub>2</sub> Nonattainment Area SIP Submissions" (SO<sub>2</sub> SIP Guidance), which provides sample calculations for establishing an adjusted 30-day average emission limit, calculated on a rolling average basis, for purposes of demonstrating compliance with the 1-hour SO<sub>2</sub> NAAQS. RTC at 10 (citing SO<sub>2</sub> SIP Guidance, Appendix C). *Id*.

With respect to the 323 MMBtu/hr heat input rate used in the modeling analysis, DAQ also explained that the modeling was conservative in part because of the application of an "unadjusted friction velocity" in the hourly meteorology (i.e., the absence of any adjustment to address typical AERMOD overpredictions of model impacts during periods of low wind). *Id.* at

<sup>&</sup>lt;sup>13</sup> See supra note 9 and accompanying text.

11. In addition, DAQ explained that it ultimately established a conservative SO<sub>2</sub> emission limit in the Permit (0.41 lb/MMBtu) rather than the modeled emission limit of 0.45 lb/MMBtu. The Petitioners provided no analysis of the conservative modeling approaches that DAQ described or the conservative emission limit that it ultimately established in the Permit, nor have they explained why DAQ's responses did not adequately address their concerns regarding the periodically higher heat input at Boilers #6 and #7. Instead, the Petitioners simply restate the concerns they raised during the public comment period and incorrectly assume that the permit contains a 0.45 lb/MMBtu emission limit, when in fact both the Draft Permit 03069T36 and the Final Permit contain an emission limit of 0.41 lb/MMBtu. *See* Draft Permit 03069T36 at 52; Final Permit at 53. Therefore, the Petitioners failed to engage with the facts that the DAQ deemed to be most relevant to the issue and failed to demonstrate that DAQ's explanation was unreasonable, or that its ultimate decision was contrary to the CAA.<sup>14</sup>

Similarly, in response to the Petitioners' comments on the facility's potential NO<sub>2</sub> impacts, DAQ explained in the RTC that the  $0.2 \text{ NO}_2/\text{ NO}_X$  in-stack ratio proposed by UNC-CH for use in the NO<sub>2</sub> NAAQS modeling demonstration was consistent with EPA guidance and appropriate given the distances between the co-generation sources and other sources within the facility. RTC at 12. DAQ also explained that the NO<sub>2</sub> modeling was conservative because of the application of an "unadjusted friction velocity" in the hourly meteorology. *Id.* at 11. The Petitioners failed to engage with these facts and failed to demonstrate that DAQ's explanation was unreasonable, or that its ultimate decision was contrary to the CAA.

# Claim A.2: The Petitioners Claim That "DAQ's Modeling Improperly Spreads 500 Hours' Worth of NO<sub>2</sub> Pollution over 8760 Hours."

**Petitioners' Claim:** The Petitioners claim that DAQ's modeling of the 500-hour operating limit for units ES-006 and ES-007 (non-emergency generators) significantly underassesses impacts on the NO<sub>2</sub> NAAQS by spreading out the emissions from those 500 operating hours over an entire year and, thus, fails to assure compliance with the 2010 1-hour NO<sub>2</sub> NAAQS. Petition at 10. Specifically, the Petitioners assert that DAQ "divided the total amount of NO<sub>2</sub> pollution the Permit permitted to occur during those 500 hours over the 8760 hours of an entire year, resulting in a 94% reduction in the amount of hourly pollution modeled" compared to what the Permit allows. *Id.* at 11 (emphasis in original).

The Petitioners state that they conducted their own modeling for the non-emergency generators using DAQ's modeling approach and assumptions and found that the Final Permit allowed for significant exceedances of the NO<sub>2</sub> NAAQS. *Id.* Therefore, the Petitioners claim that DAQ's modeling fails to ensure that the Permit limits protect the NO<sub>2</sub> NAAQS, as the North Carolina SIP requires (citing 15A N.C.A.C. 2D .0501(c) and 15A N.C.A.C. 2D .0401(c)). *Id.* 

*EPA's Response:* For the following reasons, EPA denies the Petitioners' request for an objection on this claim.

<sup>&</sup>lt;sup>14</sup> See supra note 9 and accompanying text.

### DAQ's Response

In response to public comments regarding DAQ's modeling of the 500-hour annual operating limit in the Permit, DAQ stated:

The methodology UNC-CH applied in their modeling is appropriate when a source is clearly operating "intermittently" as demonstrated by the three years (2007-2009) of hourly data provided by UNC-CH for non-emergency engines. The 2007-2009 timeframe is the highest three-year operational period for the engines since initial startup. The calculation used to derive the annualized 2.32 lb/hr NOx emission rate for the non-emergency engines in the UNC-CH 1-hour NO<sub>2</sub> NAAQS demonstration is as follows:

GEN1 ES-006 NOx (lb/hr) = (40.56 max lb/hr) \* (500 hrs/yr) \* (1 yr/8760 hrs) = 2.32 lb/hr NOx

The same calculation applies to non-emergency engine ID No. ES-007 as well. This annualized emission rate is in accordance with 1-hour NOx EPA modeling guidance referenced in the DAQ Air Quality Analysis Branch modeling review memo (see reference below; paragraph 2, pg. 11) for the draft permit, and is based on the intermittent operations of the non-emergency engines that will occur less than 500 hours per year. The maximum NO<sub>X</sub> emission rate as shown in the above calculation for each non-emergency engine is 40.56 lb/hr, as provided in the UNC-CH modeling report (Table 6). Details and backup data supporting the intermittent source characterization determination are provided in the UNC-CH modeling report in terms of hourly records (Appendix C) and discussions (Section 5.2). Additional Clarification Regarding Application of Appendix W Modeling Guidance for the 1-hour NO2, National Ambient Air Quality Standard. U.S. EPA Memorandum Office of Air Quality Planning and Standards. March 1, 2011.

RTC at 12–13.

EPA's Analysis

The Petitioners generally restate their public comments and fail to address the state's final reasoning in the RTC. In the RTC, DAQ included a detailed response to comments on this issue, explaining why it had modeled the emissions from the non-emergency generators based on its calculation of an annualized emission rate in accordance with EPA's 2011 modeling guidance for the 1-hour NO<sub>2</sub> standard. *Id*. DAQ also explained that this modeling methodology is appropriate when a source operates intermittently, and that the hourly data provided by UNC-CH for the non-emergency generators during the three-year period of highest operations for these engines since initial startup demonstrated that the engines were operating intermittently. RTC at 12. The Petitioners failed to engage with the facts that the DAQ deemed to be most relevant to

the issue and failed to demonstrate that DAQ's explanation was unreasonable, or that its ultimate decision was contrary to the CAA.<sup>15</sup>

# Claim B.1: The Petitioners Claim That "DAQ Relies on an Unjustified Expectation that No Excess Emissions Will Occur."

*Petitioners' Claim:* The Petitioners claim that permit conditions 2.1.C.1.c and 2.1.C.3.c contain no monitoring, recordkeeping, and reporting provisions to assure compliance with the PM and SO<sub>2</sub> emission limits for Boiler #9 and Boiler #10. Petition at 12. Additionally, the Petitioners claim that permit condition 2.1.G.1.c contains no monitoring, recordkeeping, and reporting provisions to assure compliance with the SO<sub>2</sub> emission limit for 81 emergency generators<sup>16</sup> and 3 fire water pumps. *Id.* Lastly, the Petitioners claim that permit condition 2.1.H.1.d contains no monitoring, recordkeeping, and reporting to assure compliance with the SO<sub>2</sub> emission limit for non-emergency generators. *Id.* 

The Petitioners state that they raised these concerns during the public comment period. *Id.* at 11. Quoting from DAQ's response to comments, in which DAQ stated that no monitoring, recordkeeping, or reporting was necessary because particulate emissions from combustion of natural gas and fuel oil are "expected to be significantly less than the 0.164 lb/MMBtu limit established under 15A N.C.A.C. 02D .0503" in the Final Permit, the Petitioners assert that UNC-CH's monitoring records reveal evidence of excess heat inputs and that "agency expectations and assumptions alone do not protect public health and the environment from unlawful pollution events." *Id.* at 13. Therefore, the Petitioners claim, the Permit lacks monitoring, recordkeeping, and reporting requirements that assure compliance with all applicable requirements at the time of permit issuance. *Id.* (citing 40 CFR § 70.8(c)(1)).

*EPA's Response:* For the following reasons, EPA denies the Petitioners' request for an objection on this claim.

## DAQ's Response

In response to public comments regarding the absence of monitoring, recordkeeping and reporting requirements from these permit conditions, DAQ stated:

Specific Condition 2.1.C.1.c.

No monitoring, recordkeeping or reporting is required for this permit condition because particulate lb/MMBtu emissions from natural gas and fuel oil are expected to be significantly less than the 0.164 lb/MMBtu limit established under 15A NCAC 02D .0503. Furthermore, under condition 2.1.C.4. (MACT Subpart DDDDD) UNC-CH is self-limited to combustion of natural gas on these boilers except for using fuel oil for periodic testing, maintenance, training, and gas curtailment. Should No. 2 fuel oil be used for any other purpose, UNC-CH is

<sup>&</sup>lt;sup>15</sup> See supra note 9 and accompanying text.

<sup>&</sup>lt;sup>16</sup> We note that the Final Permit contains requirements for 80 (not 81) emergency generators. *See* Final Permit at 40, Section 2.1.G.

required to comply with permit condition 2.1.C.5., which limits particulate emissions to a more restrictive 7.9E-03 lb/MMBtu. Performance testing, monitoring, recordkeeping and reporting requirements are provided in condition 2.1.C.5. No change to this permit condition is necessary.

Specific Condition 2.1.C.3.c.

No monitoring, recordkeeping or reporting is required for this permit condition because SO<sub>2</sub> lb/MMBtu emissions from natural gas and fuel oil are expected to be significantly less than the 2.3 lb/MMBtu limit established under 02D .0516. SO<sub>2</sub> emissions from natural gas are considered almost negligible (0.001 lb/MMBtu is a common emission factor applied for natural gas). Furthermore, under condition 2.1.C.2. the NSPS Db fuel oil sulfur content is limited to 0.3 percent by weight, which is a more restrictive limit. UNC-CH is required to obtain and maintain fuel receipts from their fuel supplier certifying that the No. 2 fuel oil meets the definition of distillate oil as defined in 40 CFR 60.41b (i.e. certifying use of low sulfur fuel). No change to this permit condition is necessary....

Specific Condition 2.1.G.1.c.

No monitoring, recordkeeping or reporting is required for this permit condition because SO<sub>2</sub> lb/MMBtu emissions from natural gas and fuel oil from the engines are expected to be significantly less than the 2.3 lb/MMBtu limit established under 02D .0516. Sulfur dioxide emissions from natural gas combustion are considered almost negligible. Furthermore, NSPS Subpart IIII and/or the RICE NESHAP Subpart ZZZZ apply to all these engines, and both regulations require the facility to purchase fuel oil/diesel with sulfur content limited to 15 ppm. This is a more restrictive limit than the limit set by 02D .0516. No change to this permit condition is necessary. The 15 ppm sulfur limit is stated in permit specific condition 2.2.C.1.c. for NSPS Subpart IIII affected engines....

Specific Condition 2.1.H.1.d.

No monitoring, recordkeeping or reporting is required for this permit condition because  $SO_2$  lb/MMBtu emissions from fuel oil combustion are expected to be significantly less than the 2.3 lb/MMBtu limit established under 02D .0516. Furthermore, the RICE NESHAP Subpart ZZZZ applies to these engines, and requires the facility to purchase fuel oil/diesel with sulfur content limited to 15 ppm. This is a more restrictive limit than the limit set by 02D .0516.

RTC at 14-15.

EPA's Analysis

The Petitioners have failed to address the state's final reasoning provided in the RTC as necessary to satisfy the requirements for public petitions in 40 C.F.R. § 70.12(a). Subparagraph

(vi) of 40 C.F.R. § 70.12(a)(2) requires, *inter alia*, that a petition either "identify where the permitting authority responded to the public comment, including page number(s) in the publicly available written response to comment, and explain how the permitting authority's response to the comment is inadequate to address the issue raised in the public comment" or, "[i]f the response to comment document does not address the public comment at all," state so.<sup>17</sup> The Petitioners neither explain how the responses that DAQ provided in the RTC are inadequate nor state that the RTC does not address the comments. In addition, the Petitioners assert only generally that more monitoring, recordkeeping, and reporting is necessary and fail to provide any specific analysis to support their claim that the Permit is flawed.<sup>18</sup> Claims raising general assertions that lack citation and analysis fail to meet a petitioner's burden of demonstration under CAA section 505(b)(2).<sup>19</sup>

In response to the Petitioners' public comments on these provisions, DAQ explained that due to the nature of the fuel burned at these emissions units (i.e., natural gas and fuel oil), the emissions from these units will be "significantly less" than the emission limits in the Final Permit. RTC at 13–15. Therefore, DAQ concluded that no monitoring, recordkeeping, and reporting was necessary. *Id.* In addition, DAQ referenced other enforceable permit terms to demonstrate that, as a legal and/or technical matter, the identified emission units cannot exceed the emission limits identified by the Petitioners, with limited exceptions. *Id.* 

Specifically, with regard to permit condition 2.1.C.1.c, DAQ explained in the RTC that PM emissions from combustion of natural gas and fuel oil are expected to be significantly less than the 0.164 lb/MMBtu emission limit in the Permit.<sup>20</sup> RTC at 14. DAQ also explained that Boiler #9 and Boiler #10 are limited to combustion of natural gas except that they may use fuel oil for periodic testing, maintenance, training, and gas curtailment, that these boilers are subject to a more restrictive PM limit of 7.9E-03 lb/MMBtu under permit condition 2.1.C.5 when using fuel oil for any other purpose, and that condition 2.1.C.5 contains performance testing, monitoring, recordkeeping and reporting requirements. *Id*. The Petitioners fail to explain how these boilers could exceed the emission limit or how DAQ's response is inadequate to address (or does not address) their comment on this permit condition. The Petitioners also fail to provide any analysis of the additional requirements under permit condition 2.1.C.5 that DAQ identified in its RTC.

With regard to permit condition 2.1.C.3.c, DAQ explained in the RTC that SO<sub>2</sub> emissions from natural gas combustion are almost negligible (0.001 lb/MMBtu), and that under permit condition 2.1.C.2, Boiler #9 and Boiler #10 are subject to the fuel oil sulfur content limit of 0.3 percent sulfur by weight in NSPS Subpart Db, which is a more restrictive limit than the 2.3 lb/MMBtu SO<sub>2</sub> limit established under 15A N.C.A.C. 02D .0516. *Id.* at 14.<sup>21</sup> The Petitioners fail to explain

<sup>&</sup>lt;sup>17</sup> See supra note 9 and accompanying text.

<sup>&</sup>lt;sup>18</sup> See supra notes 6 and 7 and accompanying text.

<sup>&</sup>lt;sup>19</sup> See supra notes 6 and 7 and accompanying text.

<sup>&</sup>lt;sup>20</sup> EPA's "AP-42: Compilation of Air Emissions Factors" estimates PM emissions from natural gas combustion at approximately 0.007 lb/MMBtu, which is significantly lower than the 0.164 lb/MMBtu emission limit in permit condition 2.1.C.1.c. *See* EPA, Fifth Edition Compilation of Air Pollutant Emissions Factors, Volume 1: Stationary Point and Area Sources, Section 1.4.

<sup>&</sup>lt;sup>21</sup> EPA notes that the Agency approved the 2.3 lb/MMBtu SO<sub>2</sub> emission limit in permit conditions 2.1.C.1, 2.1.G.1, and 2.1.H.1 into the North Carolina SIP in 1983 for purposes of implementing the 1971 SO<sub>2</sub> NAAQS. *See* 47 Fed. Reg. 54934 (December 7, 1982); 48 Fed. Reg. 6106 (February 10, 1983).

how these boilers could exceed the emission limit or how DAQ's response is inadequate to address (or does not address) their comment on this permit condition. The Petitioners also fail to provide any analysis of the additional requirements under permit condition 2.1.C.2 that DAQ identified in its RTC.

With regard to permit condition 2.1.G.1.c, DAQ explained in the RTC that SO<sub>2</sub> emissions from emergency generators and fire water pumps are expected to be significantly less than the 2.3 lb SO<sub>2</sub>/MMBtu emission limit in the Permit because SO<sub>2</sub> emissions from natural gas combustion are almost negligible. RTC at 15. In addition, DAQ explained that under permit condition 2.2.C.1.c., all of these engines are subject to a 15 ppm sulfur content limit for diesel fuel under NSPS Subpart IIII and/or RICE NESHAP Subpart ZZZZ, which is a more restrictive limit than the limit established under 15A N.C.A.C. 02D .0516.<sup>22</sup> *Id*. The Petitioners fail to explain how these generators or fire water pumps could exceed the emission limit or how DAQ's response is inadequate to address (or does not address) their comment on this permit condition. The Petitioners also fail to provide any analysis of the additional requirements under permit condition 2.2.C.1.c. that DAQ identified in its RTC.

Finally, with regard to permit condition 2.1.H.1.d, DAQ explained that SO<sub>2</sub> emissions from fuel oil combustion are expected to be significantly less than the 2.3 lb SO<sub>2</sub>/MMBtu emission limit in the Permit. RTC at 15. DAQ also explained that the non-emergency generators are all subject to a 15 ppm sulfur content limit for fuel oil and diesel fuel under the RICE NESHAP Subpart ZZZZ, which is a more restrictive limit than the 2.3 lb SO<sub>2</sub>/MMBtu emission limit established under 15A N.C.A.C. 02D .0516.<sup>23</sup> The Petitioners fail to explain how the non-emergency generators could exceed the emission limit or how DAQ's response is inadequate to address (or

$$\frac{\frac{142 \text{ lb}}{10^3 \text{ gallons}} \times 0.0015}{140 \frac{\text{MMBtu}}{10^3 \text{ gallons}}} = 0.0017 \text{ lb/MMBtu}$$

<sup>&</sup>lt;sup>22</sup> Based on AP-42 emission factors, an engine burning diesel fuel with a 15 ppm sulfur content would emit about 0.0015 SO<sub>2</sub> lb/MMBtu, which is far below the 2.3 lb/MMBtu limit in the permit. *See* EPA, Fifth Edition Compilation of Air Pollutant Emissions Factors, Volume 1, Chapter 3, Section 3.4, "Emission Factor Documentation for AP-42 Large Stationary Diesel and All Stationary Dual-Fuel Engines" (April 1993), Table 3.4-1.

 $<sup>1.01 \</sup> x \ 0.0015 = 0.0015 \ lb/MMBtu$ 

 $<sup>^{23}</sup>$  EPA's AP-42 document does not contain emission factors for engines burning fuel oil, but EPA would expect SO<sub>2</sub> emissions from engines burning No. 2 fuel oil with a 15 ppm sulfur content to be comparative to the emissions from engines burning diesel fuel (0.0015 SO<sub>2</sub> lb/MMBtu). For comparison, industrial boilers burning No. 2 fuel oil with a 15 ppm sulfur content would emit about 0.0017 SO<sub>2</sub> lb/MMBtu. *See* EPA, Fifth Edition Compilation of Air Pollutant Emissions Factors, Volume 1: Stationary Point and Area Sources, Chapter 1, Section 1.3, "Fuel Oil Combustion" (corrected May 2010), Table 1.3-1. Since almost all sulfur content in fuel oil is converted to SO<sub>2</sub> during combustion at either a boiler or an engine, the SO<sub>2</sub> emissions from combustion of 15 ppm fuel oil in the UNC-CH engines would result in SO<sub>2</sub> emissions in the range of 0.0017 lb/MMBtu.

does not address) their comment on this permit condition. The Petitioners also fail to provide any analysis of the RICE NESHAP Subpart ZZZZ provisions that DAQ identified in its RTC. *Id*.

# Claim B.2: The Petitioners Claim That "DAQ Relies on an Unjustified Expectation of Proper Maintenance and Operation of Generators."

**Petitioners' Claim:** The Petitioners claim that permit conditions 2.1.G.2.c and 2.1.H.2.c contain no monitoring, recordkeeping, and reporting provisions to assure compliance with the visible emissions limits for 81 emergency generators, three fire water pumps, and two non-emergency generators. Petition at 13-14.<sup>24</sup> The Petitioners acknowledge DAQ's explanation in the RTC that "[d]ue to the nature of the fuel being fired, properly operated and maintained generators should be in compliance with 2D .0521" but claim that "DAQ's assumptions that UNC will properly operate and maintain its equipment do not protect the public from unlawful pollution events." *Id.* at 14. The Petitioners also assert that UNC has admitted "that it does not consistently operate its generators in compliance with its permit." *Id.* Therefore, the Petitioners claim, the Permit lacks monitoring, recordkeeping, and reporting requirements that assure compliance with all applicable requirements at the time of permit issuance. *Id.* (citing 40 CFR § 70.8(c)(1)).

*EPA's Response:* For the following reasons, EPA denies the Petitioners' request for an objection on this claim.

## DAQ's Response

In response to public comments regarding the absence of monitoring, recordkeeping, and reporting requirements from these permit conditions, DAQ stated:

Specific Condition 2.1.G.2.c.

Due to the nature of the fuel being fired, properly operated and maintained generators should be in compliance with 02D .0521. The generators are NSPS and/or MACT applicable, and both regulations contain maintenance requirements according to the manufacturer or site-specific plan. Absent other monitoring, recordkeeping, and reporting conditions for visible emissions in specific applicable requirements, this condition in the draft permit is like conditions in many Title V permits written by DAQ since the mid-1990's. Those conditions have gone through many rounds of public and EPA review and are regularly approved. No change to this permit condition is necessary.

Specific Condition 2.1.H.2.c.

Due to the nature of the fuel being fired, properly operated and maintained generators should be in compliance with 2D .0521. The generators are expected to comply with RICE NESHAP Subpart ZZZZ (Specific Condition 2.1.H.3.) which includes maintenance, testing, performance monitoring, startup, shutdown and

<sup>&</sup>lt;sup>24</sup> We note that the Final Permit contains requirements for 80 (not 81) emergency generators. *See* Final Permit at 40, Section 2.1.G.

malfunction requirements. Absent other monitoring, recordkeeping, and reporting conditions for visible emissions in specific applicable requirements, this condition in the draft permit is like conditions in many Title V permits written by DAQ since the mid-1990's. Those conditions have gone through many rounds of public and EPA review and are regularly approved. No change to this permit condition is necessary.

### RTC at 15.

#### EPA's Analysis

The Petitioners have failed to demonstrate that additional monitoring, recordkeeping, and reporting is necessary to assure compliance with the visible emissions limit for the 80 emergency generators,<sup>25</sup> three fire water pumps, and two non-emergency generators under permit conditions 2.1.G.2 and 2.1.H.2. In the RTC, DAQ explained that due to the nature of the fuel burned in these generators,<sup>26</sup> properly operated and maintained generators should be in compliance with the visible emissions limit under 15A N.C.A.C. 02D .0521. RTC at 15. The Petitioners suggest, incorrectly, that DAQ's conclusion that the identified generators and fire water pumps will comply with the Permit's visible emissions limits is based entirely on DAQ's "assumptions" that UNC will properly operate and maintain its equipment. Petition at 14. As DAQ explained in the RTC, however, all of the generators are subject to NSPS and/or NESHAPs that require the source to operate and maintain the equipment as required by manufacturer specifications. Specifically, the 80 emergency generators and three fire water pumps are subject to NSPS Subpart IIII under permit condition 2.2.C.1 and the RICE NESHAP Subpart ZZZZ under permit condition 2.1.G.3, which include maintenance, testing, performance monitoring, startup, shutdown and malfunction requirements. See Final Permit, Permit Conditions 2.1.G.3.n and 2.2.C.1.j. In addition, the non-emergency generators are subject to RICE NESHAP Subpart ZZZZ under permit condition 2.1.H.3, which includes maintenance, testing, performance monitoring, startup, shutdown and malfunction requirements. See RTC at 15-16; Final Permit, Permit Condition 2.1.H.3.d. The Petitioners have not explained how the permit conditions identified by DAQ in the RTC, which require compliance with the applicable NSPS and NESHAP and related monitoring, recordkeeping, and reporting requirements, are not adequate to assure compliance with applicable requirements and thus fail to identify any specific flaw in the Permit.27

To the extent the Petitioners intended to argue that UNC-CH has violated or is violating the maintenance and operational requirements in the Permit, these arguments are not appropriate for a title V petition but may be addressed through other mechanisms, including administrative or civil enforcement action by EPA under section 113 of the CAA, enforcement by DAQ, or

<sup>&</sup>lt;sup>25</sup> The Petitioners claim there are 81 emergency generators (Petition at 13) but the Final Permit contains requirements for 80 emergency generators. *See* Final Permit at 40, Section 2.1.G.

<sup>&</sup>lt;sup>26</sup> The Final Permit requires that all of these generators burn either natural gas or fuel oil. Final Permit, Permit Conditions 2.1.G.1.c and 2.1.H.1.d.

<sup>&</sup>lt;sup>27</sup> See supra notes 6 and 7 and accompanying text.

enforcement by citizens under section 304 of the CAA. *See* 42 U.S.C. §§ 7413, 7604.<sup>28</sup> EPA encourages the public to report possible violations of environmental laws and regulations at the following website: https://echo.epa.gov/report-environmental-violations.

#### V. CONCLUSION

For the reasons set forth in this Order and pursuant to CAA § 505(b)(2) and 40 C.F.R. § 70.8(d), I hereby deny the Petition as described in this Order.

NOV - 8 2022

Kegan

Michael S. Regan Administrator

<sup>&</sup>lt;sup>28</sup> See e.g., In the Matter of Bullseye Glass Co., Order on Petition No. X-2020-7 at 6-10 (August 18, 2020) (denying title V petition issue where petitioner's arguments pertained to noncompliance with permit terms rather than a flaw in the permit).