

BEFORE THE ADMINISTRATOR
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

IN THE MATTER OF:)	
)	
BIOENERGY, LLC)	ORDER RESPONDING TO PETITIONER’S
1994 MAPLE STREET)	REQUEST THAT THE ADMINISTRATOR OBJECT
)	
WEST HOPKINTON,)	TO ISSUANCE OF A STATE OPERATING PERMIT
NEW HAMPSHIRE)	
)	
PERMIT NO. TV-OP-002)	PETITION NO. I-2003-01
)	
Issued by the New Hampshire)	
Department of Environmental Services)	
_____)	

ORDER PARTIALLY GRANTING AND PARTIALLY DENYING
PETITION FOR OBJECTION TO PERMIT

On July 23, 1998, the New Hampshire Department of Environmental Services (“NH DES”) issued Bio Energy, LLC (“Bio Energy” or “the facility”) a state operating permit pursuant to title V of the Clean Air Act (“CAA” or “the Act”), CAA §§ 501-507, 42 U.S.C. §§ 7661-7661f, EPA’s implementing regulations at 40 C.F.R. part 70 (“part 70”), and NH DES’s fully approved title V program. On July 25, 2003, NH DES issued the facility a “significant modification” to this operating permit pursuant to the requirements of part 70 and corresponding state air pollution control regulations at Env-A 101.247 (“Modified Permit”).¹

On October 31, 2003, the Residents Environmental Action Committee of Hopkinton, the Conservation Law Foundation, and the Physician Petitioners (collectively referred to herein as

¹ All references to the New Hampshire Code of Administrative Rules at Env-A are to the regulations approved into NH DES’s Operating Permits Program as of November 23, 2001.

“Petitioners”) submitted a petition to the United States Environmental Protection Agency (“EPA”) requesting that EPA object to the issuance of the Modified Permit pursuant to section 505(b)(2) of the Act, 42 U.S.C. §§ 7661a(b)(2), and 40 C.F.R. § 70.8(d).

The Petition raises four broad objections to the Modified Permit. Petitioners argue that: (1) NH DES failed to provide adequate notice of the modification request to the public; (2) NH DES failed to perform adequate modeling in its assessment of the modification request; (3) the Modified Permit does not contain requirements applicable to “incinerators” under the CAA; and (4) the Modified Permit does not contain hazardous waste management requirements. EPA has performed an independent review of Petitioners’ claims. Based on a review of all of the information before me, I grant Petitioners’ request in part and deny it in part for the reasons set forth in this Order.

I. STATUTORY AND REGULATORY FRAMEWORK

Section 502(d)(1) of the Act requires each State to develop and submit to EPA an operating permit program which meets the requirements of CAA title V. On October 26, 1995, the State of New Hampshire submitted a title V program consisting of regulations in New Hampshire's Code of Administrative Rules at Env-A 100, 200, and 600 to govern the issuance of operating permits. Following revisions submitted by New Hampshire on May 14, 2001, EPA fully approved New Hampshire's Operating Permits Program effective November 23, 2001. 66 *Fed. Reg.* 48806 (September 24, 2001); 40 C.F.R. part 70, Appendix A. All major stationary sources of air pollution and other sources covered by title V are required to apply for an operating permit that includes emission limitations and such other conditions necessary to assure compliance with all applicable requirements of the Act. CAA §§ 502(a) and 504(a), 42 U.S.C. §§ 7661a(a) and 7661c(a).

The title V operating permit program does not generally impose new substantive air quality control requirements (which are referred to as "applicable requirements"), but does require permits to contain monitoring, recordkeeping, reporting, and other requirements to assure compliance by sources with existing applicable requirements. 40 C.F.R. § 70.1(b); 57 *Fed. Reg.* 32250, 32251 (July 21, 1992). One purpose of the title V program is to "enable the source, States, EPA, and the public to better understand the requirements to which the source is subject, and whether the source is meeting those requirements." *Id.* Thus, the title V operating permits program is a vehicle for ensuring that existing air quality control requirements are appropriately applied to facility emission units in a single document, thereby enhancing compliance with the requirements of the Act. *Id.*

Under section 505(a) of the Act, 42 U.S.C. § 7661d(a), and 40 C.F.R. § 70.8(a), permitting authorities are required to submit all proposed title V operating permits to EPA for review. Section 505(b)(1) and 40 C.F.R. 70.8(c)(1) authorize EPA to object to a proposed title V permit within 45 days if the permit contains provisions that are not in compliance with the applicable requirements of the Act, including the requirements of an applicable implementation plan,² or the requirements of part 70. If EPA does not object to a title V permit on its own initiative, section 505(b)(2) of the Act and 40 C.F.R. § 70.8(d) provide that any person may petition the Administrator, within 60 days after the expiration of EPA’s 45-day review period, to object to the issuance of the permit. A petitioner must demonstrate that the permit is not in compliance with the requirements of the Act, including the requirements of part 70. Section 505(b)(2) and 40 C.F.R. § 70.8(d) also provide that petitions shall be based only on objections that were raised with reasonable specificity during the public comment period on the draft permit (unless the petitioner demonstrates that it was impracticable to raise such objections within that period or the grounds for objection arose after that period).

Section 505(b)(2) requires the Administrator to object to a permit if a petitioner demonstrates that the permit is not in compliance with the requirements of the Act, including the requirements of part 70 and the applicable implementation plan. See 40 C.F.R. § 70.8(c)(1); New York Public Interest Research Group, Inc. v. Whitman, 321 F.3d 316, 333 n.11 (2d Cir. 2003). In addition to substantive flaws, failure to process a permit, permit modification (except for minor permit modifications), or permit renewal in accordance with the procedural

² Under 40 C.F.R. § 70.1(b), “all sources subject to [title V must] have a permit to operate that assures compliance by the source with all applicable requirements,” which include the requirements of an applicable state implementation plan. *See* n. 26, *infra*.

requirements of 40 C.F.R. § 70.7(h) constitutes grounds for an EPA objection. See 40 C.F.R. § 70.8(c)(3)(iii); Sierra Club v. Johnson, 436 F.3d. 1269, 1280 (11th Cir. 2006) (“It is clear that Congress intended for EPA to object to a permit when the public participation requirements for issuing it have not been met”) (citing 42 U.S.C. § 7661d(b)(2) and 40 C.F.R. § 70.7(a)(1)(ii)). If, in responding to a petition, EPA objects to a permit that has already been issued, EPA or the permitting authority will modify, terminate, or revoke and reissue the permit consistent with the procedures in 40 C.F.R. §§ 70.7(g)(4) or (5)(i) and (ii) for reopening a permit for cause. A petition or an objection does not stay the effectiveness of the permit or its requirements if the permit was issued after the expiration of EPA’s 45-day review period. 42 U.S.C. § 7661d(b)(2)-(b)(3); 40 C.F.R. § 70.8(d).

II. BACKGROUND

Bio Energy is a 12.5-megawatt wood-fired electric generation facility. Under the facility’s original title V permit, issued on July 23, 1998, the facility was allowed to burn whole tree wood chips, clean processed wood fuel, No. 2 fuel oil, or combinations of these three fuels. Bio Energy operated approximately 95% of each year from 1998 to through 2001, burning predominantly whole tree wood chips. The facility has been shut down since May 2002.

On June 21, 2002, Bio Energy submitted to the NH DES Air Resources Division a permit application for a proposed project to allow the burning of wood chips from source-separated construction and demolition debris³ (“C/D chips”). Bio Energy requested that it be allowed to

³ New Hampshire’s solid waste regulations define “construction and demolition debris,” in part, as “non-putrescible waste building materials and rubble which is solid waste resulting

burn up to 100% of C/D chips or a blend of C/D chips with currently permitted fuels.⁴ In January, 2003, after consulting with NH DES, Bio Energy submitted a timely and complete title V renewal application to NH DES in accordance with 40 C.F.R. § 70.5(a)(1)(iii) and Env-A 608.02(b). As part of this renewal application, Bio Energy requested a modification to the permit authorizing the facility to burn up to 100% of C/D chips or a blend of C/D chips with currently permitted fuels.

On April 18, 2003, after receiving necessary supplemental information from Bio Energy, NH DES published a public notice regarding the draft Modified Permit in two local newspapers. The notice stated NH DES's intent to modify Bio Energy's title V permit to allow the future use of C/D chips along with currently permitted fuels. *See* Petition at Exhibit H. The notice also provided an opportunity to submit comments and to participate in a scheduled public hearing.⁵ *Id.* After responding to comments received on the draft Modified Permit, including comments from EPA, and receiving notice that EPA had completed its review of the proposed Modified Permit,⁶ NH DES issued the final Modified Permit on July 25, 2003. *See* Petition at Exhibit D.

from the construction, remodeling, repair or demolition of structures or roads. The term includes but is not limited to, bricks, concrete and other masonry materials, wood, wall coverings, plaster, dry wall, plumbing, fixtures, non-asbestos insulation or roofing shingles, asphaltic pavement, glass, plastics that are not sealed in a manner that conceals other wastes and electrical wiring and components, incidental to any of the above and containing no hazardous liquid or metals....” Env-Wm 102.42 (effective October 29, 1997) (renumbered to Env-Sw 102.42, effective October 28, 2005).

⁴ Regensis Corporation, which operates Bio Energy, also submitted an application to modify Bio Energy's Solid Waste Permit to authorize combustion of up to 100% C/D chips. *See* Petition at Exhibit H. NH DES revoked this permit on June 23, 2005.

⁵ NH DES scheduled a joint public hearing on May 22, 2003 for the proposed title V permit modification and solid waste permit modification. *See* Petition at Exhibit H.

⁶ A “proposed permit” is “the version of a permit that the permitting authority proposes to issue and forwards to [EPA] for review in compliance with § 70.8.” 40 C.F.R. § 70.2

The period for a citizen's petition expired on November 4, 2003. EPA received the instant petition on November 4, 2003. Accordingly, EPA finds that this petition was timely filed.

III. ISSUES RAISED BY PETITIONERS

A. Public Notice

Petitioners raise several points in support of their assertion that the public notice provided by NH DES for the draft Modified Permit was deficient. Petitioners argue that the notice was deficient because: (1) it failed to provide for separate hearings for the proposed title V modification and the application for a change to Bio Energy's solid waste permit; (2) it failed to describe the change in emissions associated with the proposed title V modification, as required by 40 C.F.R. § 70.7(h)(2); and (3) it failed to "assure adequate notice to the affected public" as required by 40 C.F.R. § 70.7(h)(1). In addition, Petitioners contend that NH DES failed to adequately notice the proposed Modified Permit, the final Modified Permit, and the right to appeal to the New Hampshire Air Resources Council.

1. NHDES was not required to hold separate hearings for separate permits.

Petitioners argue that the public "was denied an adequate and effective opportunity to participate in the hearing process as required by 40 C.F.R. § 70.7(a) and (h)." Petition at 5-6, 11. Petitioners contend that the public participation procedures provided by NH DES failed to meet

(definitions). Under section 70.8(c), a permit may not be issued if, within 45 days of receipt of the proposed permit and all necessary supporting information, EPA objects to its issuance based on a finding that the permit is not in compliance with applicable requirements.

the requirements of 40 C.F.R. § 70.7(h) because NH DES held a joint hearing for the proposed title V modification and the proposed solid waste permit modification. This argument has no merit.

Forty C.F.R. § 70.7(a) states that a permit modification may be issued only if, *inter alia*, the permitting authority has complied with the requirements for public participation under section 70.7(h). Forty C.F.R. § 70.7(h), in turn, states that all permit proceedings, including significant modifications and renewals, “shall provide adequate procedures for public notice including offering an opportunity for public comment and a hearing on the draft permit.” Section 70.7(h) also specifies the procedures that must be followed and the required content of the notice. 40 C.F.R. § 70.7(h)(1)-(5).⁷

In accordance with these requirements, NH DES issued a public notice stating that it would consider written comments in its final decision and stating where and by when such written comments should be submitted. The notice also provided the date, time, and location of the scheduled joint public hearing on the draft title V and solid waste permits. *See* Petition at Exhibit H. This information provided adequate procedures for public notice including an opportunity for public comment and a hearing on the draft permit, as required by 40 C.F.R. § 70.7(h) and NH DES’s corresponding regulations at Env-A 206.02(c)(7) and (8). Nothing in 40 C.F.R. part 70 indicates that separate hearings must be held for separate permits. The Act and EPA regulations give states the flexibility to combine hearings, which may have the salutary

⁷ Consistent with the requirements of 40 C.F.R. § 70.7(h)(2), Env-A 206.02(c)(7) and (8) state that public notice of the Department’s intent to act on a draft title V permit must contain, *inter alia*, “[a] statement that any person may request a public hearing and an explanation of how

effect of encouraging the public to focus on the combined impacts of a facility. CAA § 502(b)(6); 40 C.F.R. § 70.4(b)(16). I reject Petitioners' argument.

2. NH DES failed to describe the change in emissions associated with the permit modification.

Petitioners also claim that the public notice NH DES issued was deficient because it failed to describe the change in emissions associated with the proposed title V modification, as required by 40 C.F.R. § 70.7(h)(2). Petition at 6-7. As explained below, I am granting the petition on this issue.

A title V significant permit modification may be issued only if, among other things, “the permitting authority has complied with the requirements for public participation under [40 C.F.R. § 70.7(h)].” 40 C.F.R. § 70.7(a)(1)(ii); *see also* 40 C.F.R. § 70.7(e)(4)(ii) (requiring state programs to provide that significant permit modifications meet the public participation requirements of part 70). Forty C.F.R. § 70.7(h)(2) requires that a public notice identify, *inter alia*, “the emissions change involved in any permit modification.”⁸

NH DES's April 18, 2003 notice stated that “[t]his permit modification is for the future use of wood generated from construction and demolition debris (C/D chips) to be burned in the boiler along with currently permitted fuels.” *See* Petition at Exhibit H. The notice did not specifically describe the change in emissions associated with this proposed permit modification, as required by 40 C.F.R. § 70.7(h)(2) and NH DES's corresponding requirements at Env-A

to request such hearing; [and] the date by which, and the address where, written comments and/or requests for a public hearing shall be filed....” Env-A 206.02(c)(7), (8) (“Public Notice”).

⁸ Consistent with the requirements of 40 C.F.R. § 70.7(h)(2), Env-A 206.02 requires that a public notice of any proposed title V permit modification contain information about “the change in emissions resulting from such modification.” Env-A 206.02(c)(4).

206.02(c)(4). Results from NH DES's modeling exercises, which the state conducted during its development of the Modified Permit to assess air toxics emissions, indicated that combustion of 100% C/D chips would result in higher emissions of various metals compared to combustion of whole tree wood chips. For example, lead emissions would increase by 2.6 tons per year (tpy), mercury emissions by .0133 tpy, arsenic emissions by .0064 tpy, and chromium emissions by .001 tpy. Although all of the potential emissions increases associated with the authorized fuel change were nonmajor,⁹ NH DES was required to provide this information about potential emissions changes in its public notice.

Accordingly, I find that the public notice NH DES issued was deficient and direct NH DES to reopen the draft Modified Permit for public comment. The notice must contain all information required by 40 C.F.R. § 70.7(h)(2) and Env-A 206.02(c)(4), including information about the change in emissions associated with the proposed permit modification.¹⁰ NH DES must also provide an opportunity for review to the states of Maine, Vermont, and Massachusetts, in accordance with the requirements of 40 C.F.R. § 70.7(h)(3).

3. NH DES provided adequate notice of the modification to the “affected public.”

⁹ Note, however, that the new fuel provision in the Modified Permit should have undergone minor New Source Review (NSR). The failure to include applicable requirements pursuant to New Hampshire's minor NSR requirements in the Modified Permit renders it substantively flawed. Because the Petition did not identify this issue, I do not address it in this Order. EPA has, however, notified NH DES pursuant to 40 C.F.R. § 70.7(g) of its independent finding that the Modified Permit must be terminated, modified, or revoked and reissued to correct this flaw. *See* May 30, 2006, letter from Dave Conroy, Air Branch Chief, EPA Region 1, to Robert Scott, Director, Air Resources Division, NH DES.

¹⁰ NH DES will need to correct the substantive flaw identified in n. 9, *supra*, before reissuing the Modified Permit in accordance with this Order.

Petitioners also argue that NH DES failed to provide “adequate notice to the affected public” as required by 40 C.F.R. § 70.7(h)(1). Petition at 7-9. In support of this argument, Petitioners assert that several months prior to NH DES’s public notice of the draft Modified Permit, hundreds of local residents had attended public hearings on solid waste permitting issues at Bio Energy and opposed the facility’s plans to burn sludge. *See* Petition at 8. Petitioners also claim that more than 2,000 residents had signed a petition to oppose these plans, and that NH DES had developed a mailing list for developments related to Bio Energy’s solid waste issues. *See id.* According to Petitioners, the “affected public” included all of these individuals who had expressed interest in the facility’s operations. *Id.* Petitioners contend that given NH DES’s knowledge of the substantial public interest in this facility, NH DES was obligated to take steps “necessary to assure” that all of these individuals received notice of the hearing on the draft Modified Permit, and that NH DES’s decision to place legal notices in two local newspapers constituted noncompliance with section 70.7(h)(1). *Id.* I reject this argument.

EPA’s regulations at 40 C.F.R. part 70 require that notice be given “by publication in a newspaper of general circulation in the area where the source is located or in a State publication designed to give general public notice; to persons on a mailing list developed by the permitting authority, including those who request in writing to be on the list; and by other means if necessary to assure adequate notice to the affected public.” 40 C.F.R. § 70.7(h)(1). The permitting authority is clearly required to provide notice by publication in a widely-distributed newspaper. It is not, however, required to give particular individuals additional notice, unless it has already developed a relevant mailing list or those individuals have submitted a *written* request to be on such a list. Nor is the permitting authority required to take any other action,

unless further action is “necessary to assure adequate notice to the affected public.” NH DES’s public notice regulation at Env-A 206.02 substantially mirrors 40 C.F.R. § 70.7(h).¹¹

Consistent with these requirements, NH DES published its public notice of the significant modification in *two* newspapers of general circulation in New Hampshire. NH DES issued Bio Energy’s first title V permit in 1998, and since then had received no written requests for individual notice of developments related to this permit. As a result, NH DES had not developed a mailing list related to Bio Energy’s title V permit and had no obligation to provide individual notice of the hearing on the draft Modified Permit. Petitioners’ argument does not warrant an EPA objection.

4. NH DES provided adequate notice of the proposed Modified Permit, final Modified Permit, and right to appeal.

Finally, Petitioners argue that NH DES failed to provide adequate notice of its submission of the proposed Modified Permit to EPA, its issuance of the final Modified Permit, and citizens’ right to appeal to the New Hampshire Air Resources Council. Petition at 9-11. Petitioners claim that the only notice provided by NH DES of its impending issuance of the Modified Permit was a July 22, 2003 letter to Bio Energy, the town of Hopkinton, and the nine attendees of the April 2003 public hearing. *Id.* at 9. Petitioners suggest that NH DES was obligated to take further steps to provide public notice of “this critical step in the permitting process, i.e. the opportunity to determine whether the permit conditions were changed from the

¹¹ Env-A 206.02(b) states that public notice “shall be published in a newspaper of general daily statewide circulation.” Env-A 206.02(d) states that public notice “shall be given to persons on a mailing list developed by the division which shall include persons who request in writing to be on such list.” The state rule requires no additional means of notification beyond those specified in 40 C.F.R. 70.7(h).

draft to final version, and the important fact that the appeal period would run within ten days.”

Id. at 9-10. In support of this argument, Petitioners claim that: (1) the Modified Permit contained material modifications from the publicly-noticed draft permit; (2) the public could not appeal the decision to the New Hampshire Air Resources Council within the ten days permitted,¹² since the public had no notice of NH DES’s final decision or its findings; (3) the public was never presented with a topography map showing the location of predicted lead impacts from Bio Energy’s emissions, which was given to one resident (Byron Carr) after the hearing; and (4) the public was not notified of EPA’s June 4, 2003 comments on the permit modification, nor of the changes Bio Energy made to the draft permit in response to EPA’s comments. *Id.* at 10-11.

Petitioners also suggest that NH DES was obligated to provide *individual* notice of the issuance of the Modified Permit to Susan Covert, who submitted written comments but did not attend the public hearing. *Id.* at 10. All of these omissions, according to Petitioners, constituted a failure by NH DES to take steps “necessary to assure adequate notice to the affected public” in accordance with 40 C.F.R. § 70.7(h)(1). I reject these arguments.

As noted, 40 C.F.R. § 70.7(h)(1) and New Hampshire’s corresponding regulation at Env-A 206.02 require that notice of a draft significant modification to a title V permit be given by publication in a newspaper of general circulation in the area where the source is located, and to persons on a mailing list if the permitting authority has developed such a list or received a written request for individual notice. *See* discussion *supra* at section III.A.3. These notice

¹² Env-A 206.09(a) (“Appeals”) states that any objection to a “decision by the director granting or denying a title V operating permit” must be submitted in a petition to the New Hampshire Air Resources Council within 10 days of such decision.

requirements apply only to the *draft* permit. 40 C.F.R. §§ 70.7(h), 70.4(d)(3)(iv).¹³ Absent significant changes to the draft permit after the close of the comment period that warrant additional public review, neither EPA’s part 70 regulations nor New Hampshire’s title V permit regulations require further public notice.

The final Modified Permit contained no material changes from the draft Modified Permit that NH DES issued for public comment. Nonetheless, on July 22, 2003, after the close of the comment period and shortly before issuance of the Modified Permit, NH DES sent a copy of the Findings of Fact and Director’s Decision (*see* Petition at Exhibit D) and a copy of the proposed Modified Permit to the town of Hopkinton and to all individuals who had signed-in at the public hearing.¹⁴ NH DES explained in its cover letter for this mailing that it had submitted the proposed Modified Permit to EPA for review, and that unless EPA objected within 45 days, NH DES would issue the Modified Permit. *See* Petition at Exhibit L. The cover letter also noted that any objection to the state’s decision to issue the Modified Permit must be filed with the New Hampshire Air Resources Council within 10 days, in accordance with Env-A 206.09 (“Appeals”).¹⁵ *Id.* NH DES took reasonable steps to notify the interested public of its final

¹³ *See also* n. 7, *supra*.

¹⁴ It appears that Susan Covert, the one written commenter, did not receive this mailing and that NH DES subsequently sent a copy to her after the close of New Hampshire’s 10-day appeal period. While it would have been better practice to ensure that each individual who participated in the public process received prompt notice of the issuance of the final permit, the Act and regulations do not specifically require any such notice.

¹⁵ It appears that NH DES erroneously started the state’s 10-day appeal period on July 22, 2003, the date of its mailing to the town and public participants, rather than the date of its “decision,” *i.e.*, the date the final Modified Permit was issued (July 25, 2003). Petitioners do not appear, however, to have been prejudiced by this shortened state appeal period as they neither submitted any state appeal nor argued they attempted to do so upon receipt of the July 22, 2003

decision in this case, and part 70 required nothing more. Petitioner's argument does not warrant an EPA objection.

B. Modeling

Petitioner raises several points in support of its assertion that NHDES failed to perform adequate modeling analyses in its assessment of Bio Energy's modification request. As a threshold matter, Petitioner's arguments about these alleged modeling deficiencies were not raised during the public comment period, and Petitioner has provided no justification for its failure to do so. Accordingly, these arguments have not been preserved for review. *See* CAA § 505(b)(2), 42 U.S.C. § 7661d(b)(2); 40 C.F.R. § 70.8(d). Moreover, title V contains no substantive standards that require modeling analyses and, therefore, provides no recourse for challenges to modeling analyses that might support permit conditions.¹⁶ In addition, NH DES conducted these modeling exercises pursuant to state-only air toxics requirements,¹⁷ which are not applicable requirements under title V and, thus, provide no grounds for EPA objection.¹⁸

mailing. In any event, NH DES provided all public participation opportunities required by part 70.

¹⁶ While SIP-approved standards or requirements designed to protect the National Ambient Air Quality Standards ("NAAQS") are title V "applicable requirements," the NAAQS *themselves* are not applicable requirements, except as these standards apply to "temporary sources" permitted pursuant to section 504(e) of the Act. 40 C.F.R. § 70.2. Accordingly, title V does not require sources (other than "temporary sources") to submit modeling analyses to demonstrate compliance with the NAAQS. Because Bio Energy is not a "temporary source," the NAAQS are not title V "applicable requirements" for this facility.

¹⁷ *See* Modified Permit at 5. New Hampshire's air toxics requirements at Env-A 1405.02 require sources to conduct (or request that NH DES conduct) modeling analyses demonstrating compliance with state "ambient air limits" ("AALs") for toxic pollutants. Based on these analyses, NH DES concluded that Bio Energy's emissions of toxic air pollutants under the Modified Permit would not violate any AALs for toxics.

¹⁸ As noted, EPA is required to object to a title V permit based on a petition for review only where the petitioner demonstrates that the permit is not in compliance with the applicable

Notwithstanding all of these threshold bars to objection, EPA has reviewed Petitioners' arguments regarding NH DES's modeling analyses and concluded the arguments fail to identify any significant flaws in these modeling analyses.

Petitioner argues that NH DES's modeling failed to adequately address adverse impacts to public health for a number of reasons. First, Petitioner argues that NH DES improperly used Concord meteorological data instead of "more representative local data." Petition at 11, 12. Petitioner bases this allegation on an assumption that data from Concord "does not realistically represent the actual meteorological conditions of the communities surrounding the plant," because of differences in distance, elevation, temperature, and prevailing wind speed and direction. *Id.*

EPA disagrees that Concord data does not realistically represent meteorological conditions around the facility. Bio Energy is located about 10 miles west of the Concord airport, where the Concord data station is located. Both the facility and the airport are located in hilly terrain, near river valleys with a roughly north-south orientation, indicating that wind patterns in the two locations are similar. EPA has concluded that none of the topographic features near either the facility or the airport are of sufficient height or shape to have a substantial effect on wind or temperature patterns. In addition, data NH DES used in its modeling analyses indicate the state used five years of meteorological data from the Concord station in its modeling assessment. Use of such data is consistent with EPA's guideline on air quality models at 40 CFR

requirements of the Act. *See* CAA § 505(b)(2); 40 C.F.R. § 70.8(d). State requirements not approved under CAA sections 110 (into a SIP) or 112 (to implement federal air toxics standards) are not applicable requirements.

part 51, Appendix W, Sec. 9.3.1.2.a.¹⁹ NH DES's modeling assessment based on Concord meteorological data was sound. I reject this argument.

Second, Petitioner claims that NH DES failed to use proper modeling modes to accurately reflect the local terrain. *See* Petition at 12. Specifically, Petitioner notes that the Industrial Source Complex ("ISC") model²⁰ was run in "complex terrain" mode for the screening study, while only "simple terrain" mode was used for the refined study. *Id.* Petitioner asserts that these modeling results did not assess actual conditions present at the site, and that they failed to adequately predict the "Maximum Exposed Receptor" locations. *Id.*

EPA disagrees with Petitioners' assertion that the modeling modes NH DES used were inadequate to accurately reflect the local terrain. NH DES performed a screening analysis²¹ to determine where around the facility potential exceedences of air quality standards might occur. The analysis showed that while some exceedences may occur in "simple terrain" areas, *i.e.*, areas

¹⁹ EPA's "Guideline on Air Quality Models" at 40 C.F.R. part 51, appendix W ("*Guideline*") "recommends air quality modeling techniques that should be applied to State Implementation Plan (SIP) revisions for existing sources and to new source reviews (NSR), including prevention of significant deterioration (PSD). Applicable only to criteria air pollutants, it is intended for use by EPA Regional Offices in judging the adequacy of modeling analyses performed by EPA, State and local agencies and by industry.... The *Guideline* serves to identify, for all interested parties, those techniques and data bases EPA considers acceptable." 40 C.F.R. part 51, appendix W, Section 1.0 ("Introduction").

Section 9.3.1.2.a. of Appendix W states, in relevant part, as follows: "Five years of representative meteorological data should be used when estimating concentrations with an air quality model. Consecutive years from the most recent, readily available 5-year period are preferred. The meteorological data should be *adequately representative*, and may be site specific or from a nearby [National Weather Service] station." (Emphasis in original.)

²⁰ The *Guideline* recommends that the ISC model be used to assess pollutant concentrations from a wide variety of sources associated with an industrial source complex. 40 C.F.R. part 51, appendix A of appendix W, section A.5 ("Industrial Source Complex Model (ISC3)").

with elevations below the top of Bio Energy’s stack,²² no exceedences were likely to occur in “complex terrain” areas, *i.e.*, areas where the terrain is higher than the facility’s stack. NH DES therefore appropriately ran the refined study only in simple terrain mode, to assess the impact of air emissions at the elevations where exceedences were likely to occur. Petitioner has failed to provide any compelling reason for running the refined study in complex terrain mode. I reject this argument.

Third, Petitioner argues that NH DES failed to follow accepted modeling practice by “simply doubling the measured stack outputs in a flawed effort to model exposures from burning 100% construction debris.” Petition at 12. Petitioner claims that NH DES based much of its study on the assumption that if the input of C/D chips were doubled (from 50% to 100% of the facility’s fuel usage), the output of toxic emissions would also be doubled. *See id.* Petitioner asserts that this is “an erroneous and potentially dangerous assumption due to reactive error in the ISC algorithm,” and that “[t]his conceptual approach is inconsistent with accepted modeling practice and scientifically unsound.” *Id.*

Petitioner’s challenge to NH DES’s calculation of projected emissions increases is not supported by any reference or evidence beyond the raw assertions above. NH DES conducted a test burn to determine the emissions resulting from the use of 50% C/D chips. NH DES then reasonably concluded that the use of 100% C/D chips – *i.e.*, twice the amount of C/D chips – would result in twice as much emissions of each pollutant. Other than attaching to the petition a

²¹ A “screening analysis” is a simplified air modeling analysis run with data representing worst-case scenario meteorological conditions.

statement from a contractor to the hazardous waste industry, which does no more than repeat the assertions above without any accompanying evidence or support (*see* Petition at Exhibit M), Petitioner offers no support for its assertion. I reject this argument.

Finally, Petitioner claims that the only route of exposure NH DES considered during the modeling process was the inhalation of gaseous emissions and that this was erroneous. *See* Petition at 13, 14. Petitioner asserts that NH DES should have assessed the potential exposure risk to the public from *all* exposure pathways – including soil and other exposed surface accumulations, surface water accumulations, and groundwater pathways – because residents may be exposed to emissions of lead and other toxic metals via these pathways. *See id.*²³

As noted, New Hampshire’s “ambient air levels” for toxic pollutants (“AALs”) are not applicable requirements under title V. Therefore, Petitioners’ challenges to NH DES’s modeling analyses, which supported NH DES’s conclusion that the terms of the Modified Permit would ensure protection of the AALs, provide no grounds for EPA objection.²⁴ To the extent

²² The *Guideline* states that “simple terrain” is considered to be “an area where terrain features are all lower in elevation than the top of the stack of the source(s) in question.” 40 C.F.R. part 51, appendix W, par. 4.1.

²³ As a preliminary matter, we note that the purpose of air quality modeling analyses is to evaluate pollutant impacts on ambient air quality standards, which generally express maximum levels of pollutant concentrations in the *air* that are protective of the public health and welfare. Neither EPA’s nor NH DES’s ambient air standards require a case-by-case evaluation of the risks of exposure to pollutants through soil, water, or other pathways. Moreover, it is not clear whether Petitioners intended to challenge NH DES’s modeling methodology *per se*, or to challenge the state ambient air quality standards (i.e., ambient concentrations) that the models demonstrated would be protected. Notwithstanding Petitioners’ failure to present a cognizable claim, I address both of the following arguments: (1) that NH DES’s modeling analyses were inadequate to ensure compliance with the applicable state ambient standards, and (2) that these state ambient standards themselves are inadequate to protect the public health.

²⁴ Likewise, to the extent Petitioners intended to argue that NH DES’s modeling analyses were inadequate to ensure protection of a federal NAAQS (e.g., the standard for lead), this

Petitioners challenge the adequacy of any of these ambient air quality standards to protect public health, this is not the proper forum for such challenges.²⁵ Nonetheless, EPA reviewed NH DES's modeling analyses of the potential emissions of lead and other toxic metals from the burning of C/D chips and concludes these analyses were sound. I reject this argument.

C. Requirements applicable to “incinerators”

As a threshold matter, Petitioner's arguments that Bio Energy should be regulated as an “incinerator” under the Act and under federal and state regulations were not raised during the public comment period, and Petitioner has provided no justification for its failure to do so. Accordingly, these arguments have not been preserved for review. *See* CAA § 505(b)(2), 42 U.S.C. § 7661d(b)(2); 40 C.F.R. § 70.8(d). EPA has, however, assessed the merits of these arguments and concluded that even if these issues had properly been raised, they would not warrant an EPA objection.

The CAA authorizes the Administrator to object to the issuance of any permit containing provisions determined by the Administrator as “not in compliance with the applicable requirements of [title V].” CAA § 505(b)(1). “Applicable requirements” of title V include, among other requirements, New Source Performance Standards under CAA § 111 and state

argument also fails to warrant objection, as the NAAQS are not applicable requirements for this facility. *See* n. 16, *supra*.

²⁵ Any argument that EPA's or NH DES's ambient air quality standards are inadequate to protect the public health or welfare should have been raised during the appropriate agency's rulemaking process and cannot be heard now. *See In re Tondu Energy Co.*, 9 E.A.D. 710, 715 (EAB 2001) (rejecting argument that meeting the NAAQS was not sufficient to protect human health, noting that this was a “challenge to the current NAAQS” and that “permit appeals are not the appropriate fora for challenging Agency regulations”); *see also In the Matter of Cargill, Inc.*, 4 E.A.D. 31, 32 (EAB 1992); *In the Matter of Brooklyn Navy Yard Resource Recovery Facility*,

regulations approved into a SIP under title I of the Act that apply to a title V source. *See* 40 C.F.R. § 70.2.²⁶ For the reasons discussed below, the requirements governing “incinerators” that Petitioner cites to are either not applicable to Bio Energy or are not “applicable requirements” under title V at all and provide no grounds for objection to this permit.

1. NH DES appropriately concluded that Bio Energy is not an “incinerator” under 40 C.F.R. part 60.

Petitioner asserts that Bio Energy is an “incinerator” subject to two separate New Source Performance Standards under CAA § 111, and that NH DES’s failure to apply these requirements renders the title V permit flawed. *See* Petition at 20-23. Because EPA’s New Source Performance Standards (“NSPS”) at 40 C.F.R. part 60 are standards promulgated under section 111 of the Act, any NSPS that applies to Bio Energy is an “applicable requirement” under part 70 and must be included in Bio Energy’s title V permit. As discussed below, however, Bio Energy is not subject to either of these NSPSs. I reject these arguments.

First, Petitioner claims that Bio Energy is subject to the requirements of 40 C.F.R. part 60, subpart E (“Standards of Performance for Incinerators”). *See* Petition at 20-22. Petitioner asserts that “any incinerator that has a charging rate of more than 50 tons per day” is subject to the provisions of subpart E, and that Bio Energy is subject to this subpart because it proposes to

3 E.A.D. 867, 869 (Adm’r 1992) (rejecting, as a challenge to the regulations, petition seeking additional public input procedures).

²⁶ 40 C.F.R. part 70 defines “applicable requirement” as “all of the following as they apply to emissions units in a part 70 source... (1) Any standard or other requirement provided for in the applicable implementation plan approved or promulgated by EPA through rulemaking under title I of the Act that implements the relevant requirements of the Act, including any revisions to that plan promulgated in part 52 of this chapter; ... [and] (3) Any standard or other requirement under section 111 of the Act... .” 40 C.F.R. § 70.2.

burn 528 tons per day of C/D chips. *Id.* at 21. As part of this argument, Petitioner also asserts that Bio Energy is a solid waste incineration facility according to NH DES’s Solid Waste Management Division. *Id.*

Subpart E applies to any “incinerator,” which is defined as “any furnace used in the process of burning solid waste for the purpose of reducing the volume of the waste by removing combustible matter.” 40 C.F.R. § 60.51(a). “Solid waste” is defined in the same subpart as “refuse, more than 50 percent of which is municipal type waste consisting of a mixture of paper, wood, yard wastes, food wastes, plastics, leather, rubber, and other combustibles, and noncombustible materials such as glass and rock.” 40 C.F.R. § 60.51(b). “Municipal type waste” is not defined in subpart E. Notably, however, in subpart Ea (“Standards of Performance for Municipal Waste Combustors for Which Construction is Commenced After December 20, 1989 and on or Before September 20, 1994”), EPA defined “municipal-type solid waste” as “household, commercial/retail, and/or institutional waste” and specified that such waste does *not* include “wood pallets” or “construction, renovation, and demolition wastes.” 40 C.F.R. 60.51a.²⁷

²⁷ In the 1989 preamble to the proposed standard, EPA explained its intent to establish a “more comprehensive approach to [municipal waste combustors]” than that established under subpart E, which regulated only particulate matter emissions and was, therefore, inadequate to address the potential public health impacts of increasing municipal solid waste combustion in the U.S. 54 Fed. Reg. 52209, 52217-18 (December 20, 1989). As proposed, subpart Ea would have applied to facilities burning “municipal solid waste,” defined as “refuse, more than 50 percent of which is municipal-type waste consisting of a mixture of paper, wood, yard wastes, food wastes, plastics, leather, rubber, and other combustibles, and noncombustible materials such as glass, metal, and rock” – a definition that, with the exception of one word (“metal”), mirrored verbatim the definition of “solid waste” in subpart E. See 40 C.F.R. 60.51(b). In the final rule, however, EPA revised the definition to eliminate the “50-percent content wording and specification that waste must contain a mixture of materials,” noting in response to comments that these terms

The Modified Permit authorizes Bio Energy to burn either 100% C/D chips or a combination of C/D chips, whole tree wood chips, clean processed wood fuel, and No. 2 fuel oil.²⁸ *See* Modified Permit at 3, 8. None of these fuels, alone or in combination, constitute “solid waste” as that term is defined in subpart E.²⁹ Bio Energy therefore is not an “incinerator” as defined in 40 C.F.R. part 60 subpart E and is not subject to the requirements of this subpart.³⁰

Second, Petitioner asserts that Bio Energy is subject to the requirements of 40 C.F.R. part 60 subpart CCCC (“New Source Performance Standards for Commercial and Industrial Solid Waste Incineration (CISWI) Units”). *See* Petition at 22, 23. Petitioner alleges, without support, that Bio Energy is a CISWI unit. *Id.*

Forty C.F.R. part 60 subpart CCCC defines “commercial and industrial solid waste incineration unit” to mean “any combustion device that combusts commercial and industrial waste, as defined in this subpart.” 40 C.F.R. § 60.2265. “Commercial and industrial waste,” in turn, is defined as “solid waste combusted in an enclosed device using controlled flame

created ambiguity in the definition. 56 Fed. Reg. 5488, 5495 (February 11, 1991). EPA explained in the final rule that “[t]he focus of the final standards is combustion of any waste material or mixture of materials that is typically considered part of the municipal waste stream,” which “consists of household, commercial/retail, and institutional waste” but does *not* include “wood pallets [or] construction and demolition wastes.” *Id.* It is apparent from this clarification of the scope of subpart Ea, a rule clearly intended to enhance the goals of subpart E, that EPA did not intend to regulate wood chips or C/D chips as “solid waste” under subpart E.

²⁸ *But see* n. 9 *supra* (noting that the authorization to burn C/D debris in the Modified Permit is flawed).

²⁹ Neither does the subset of these fuels authorized by the prior permit (whole tree wood chips, clean processed wood fuel, and No. 2 fuel) constitute “solid waste.”

³⁰ Petitioner correctly notes that Bio Energy had received a state solid waste permit authorizing it to develop an “incineration facility” pursuant to the New Hampshire solid waste rules. *See* Petition at Exhibit Q, “Standard Permit No. DES-SW-SP-02-002, for Bio Energy Corporation.” Solid waste requirements are not, however, “applicable requirements” under title

combustion *without energy recovery* that is a distinct operating unit of any commercial or industrial facility... or solid waste combusted in an air curtain incinerator *without energy recovery* that is a distinct operating unit of any commercial or industrial facility.” *Id.* (emphases added). The definition of “commercial and industrial waste” explicitly excludes fuels that are burned for the purpose of energy recovery.³¹

Bio Energy is authorized to burn either 100% C/D chips or a combination of C/D chips, whole tree wood chips, clean processed wood fuel, and No. 2 fuel oil in its boilers, expressly for the purpose of electricity generation.³² *See* Modified Permit at 3, 8. As such, the facility is not authorized to burn “commercial and industrial waste” as defined in subpart CCCC, and, therefore, is not subject to the requirements of this subpart.

2. **NH DES appropriately concluded that Bio Energy is not subject to regulation as an “incinerator” under New Hampshire’s SIP-approved air regulations.**

V of the Act and are therefore irrelevant to this Modified Permit. We note also that NH DES revoked Bio Energy’s solid waste permit on June 23, 2005.

³¹ In the preamble to this NSPS, EPA explained that the overall intent of the CAA provisions governing solid waste incineration units was to apply those requirements to “devices conventionally regarded as incinerators, that is, devices burning wastes in order to destroy the wastes,” as distinguished from “boilers and other energy recovery devices.” 65 Fed. Reg. 75338, 75342-43 (December 1, 2000). EPA explained that this distinction between “incinerators” and “boilers and other energy recovery devices” was “necessary to avoid dual regulation of the many combustion units in use at commercial and industrial facilities that function as energy recovery devices and may be subject to regulation under other sections of the CAA.” *Id.* The definition of “commercial and industrial waste” at 40 C.F.R. part 60 subpart CCCC reflects this intent to exclude energy recovery devices from regulation as incinerators. *Id.* at 75343.

³² *But see* n. 9 *supra* (noting that the authorization to burn C/D debris in the Modified Permit is flawed).

Petitioner asserts that Bio Energy is an “incinerator” under the New Hampshire Revised Statutes and its implementing regulations, and that NH DES’s failure to apply these requirements renders the title V permit flawed. *See* Petition at 17-20, 23, 24. These arguments have no merit.

EPA has approved New Hampshire’s regulations at Env-A 101 (“Definitions”) and Env-A 1201 (“Incinerators”) into the New Hampshire SIP through rulemaking under title I of the Act. *See* 57 FR 36605 (August 14, 1992); 63 FR 11600 (March 10, 1998). Therefore, any standard in these regulations that applies to Bio Energy is an “applicable requirement” and must be included in Bio Energy’s title V permit. *See* 40 C.F.R. § 70.2.

New Hampshire’s SIP-approved incinerator requirements do not apply to Bio Energy. Env-A 101.50 defines “incinerator” as “a device engineered to burn or oxidize solid, semi-solid, liquid, or gaseous waste for the primary purpose of volume reduction, disposal, or chemical destruction, leaving little or no combustible material. Such devices may include heat recovery systems.” Env-A 101.50.³³ The Modified Permit authorizes Bio Energy to burn C/D chips, whole tree wood chips, clean processed wood fuel, and No. 2 fuel oil for the primary purpose of electricity generation.³⁴ *See* Modified Permit at 3, 8. The facility is not authorized to burn solid, semi-solid, liquid, or gaseous waste for the primary purpose of volume reduction, disposal, or chemical destruction. Because Bio Energy is not an “incinerator” as defined in these regulations,

³³ According to NH DES’s SIP-approved regulations at Env-A 1211.02(g), “incinerators” (as defined at Env-A 101.50) are subject to the NO_x emission standards for incinerators at Env-A 1211.09 if “the combined processing capacity of such incinerator(s) exceeds 85 tons per day or more of waste at any time after December 31, 1989.”

³⁴ *But see* n. 9 *supra* (noting that the authorization to burn C/D debris in the Modified Permit is flawed).

the standards for incinerators in New Hampshire’s SIP-approved regulations are not “applicable requirements” for Bio Energy.

Next, Petitioner argues that Bio Energy is subject to regulation as an “incinerator” under New Hampshire State Administrative Rule Env-A 1900, *et. seq.* EPA has not approved these state regulations into the New Hampshire SIP. As such, the requirements at Env-A 1900 *et. seq.* are not “applicable requirements” under title V and provide no grounds for objection to Bio Energy’s title V permit. *See* CAA § 505(b)(1).³⁵

Finally, Petitioner argues that Bio Energy is an “incinerator” under N.H.R.S.A. 149-M:4, X-a³⁶ and is therefore subject to the NOx emission standards for incinerators at Env-A 1211.09. N.H.R.S.A. Chapter 149-M governs solid waste management in the State of New Hampshire and is not approved into the New Hampshire SIP. Env-A 1211.09, on the other hand, is a SIP-approved regulation (*see* 68 FR 17092, April 9, 1997), but it does not apply to “incinerators” as defined in Chapter 149-M.³⁷ Because Bio Energy is not an “incinerator” as defined by the New Hampshire SIP-approved regulations, the standards for incinerators at Env-A 1211.09 are not “applicable requirements” in this case and provide no grounds for objection to Bio Energy’s title V permit.

³⁵ *See* n. 26, *supra* (citing part 70 definition of “applicable requirement”). Because the requirements at Env-A 1900 *et. seq.* are not “applicable requirements” under title V, I do not address Petitioner’s arguments (at Petition at 18-20) about the applicability of specific portions of these requirements.

³⁶ N.H.R.S.A. 149-M:4, X-a defines “incinerator” as “a facility which employs a method of using controlled thermal combustion, including flame combustion, to thermally break down waste or other materials, including refuse-derived fuel, to an ash residue that contains little or no combustible materials.”

D. Requirements governing “hazardous waste”

Finally, Petitioner asserts that because the C/D chips Bio Energy seeks to burn fall under the definition of “hazardous waste” pursuant to N.H.R.S.A. 147-A:2 VII (a) and (b), the facility’s entire operation of storing, mixing and burning hazardous construction and debris wood waste must comply with the requirements that apply to hazardous waste facilities. *See* Petition at 15-17. As a threshold matter, Petitioner’s argument about the applicability of hazardous waste requirements was not raised during the public comment period, and Petitioner has provided no justification for its failure to do so. Accordingly, this argument has not been preserved for review. *See* CAA § 505(b)(2), 42 U.S.C. § 7661d(b)(2); 40 C.F.R. § 70.8(d).

Even if this argument had properly been raised, it would not warrant an EPA objection. Hazardous waste requirements, including those at N.H.R.S.A. Chapter 147-A, are not approved into the New Hampshire SIP, and thus are not “applicable requirements” under title V. Therefore, the failure to include these requirements in the Modified Permit provides no grounds for objection.

IV. CONCLUSION

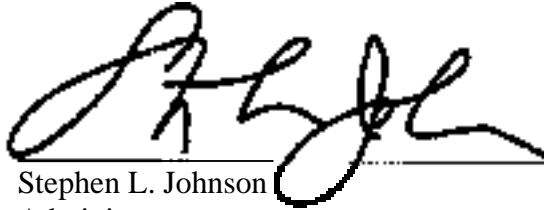
For the reasons set forth above and pursuant to Section 505(b) of the Act and 40 C.F.R.

³⁷ Only “incinerators” as defined at Env-A 101.50 that meet the applicability criteria of Env-A 1211.02(g) are subject to the NO_x emission standards and monitoring, reporting, and recordkeeping requirements of Env-A 1211.09. *See* n. 33, *supra*, and accompanying text.

§70.8(d), I hereby grant the Petitioners' request that I object to the issuance of the Modified Permit for failure to provide adequate public notice of the change in emissions associated with the proposed permit modification. I deny the petition with respect to all other allegations.

OCT 27 2006

Date



Stephen L. Johnson
Administrator