BEFORE THE ADMINISTRATOR
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

IN THE MATTER OF	)	
ORANGE RECYCLING AND ETHANOL	)	ORDER RESPONDING TO
PRODUCTION FACILITY, PENCOR-	)	PETITIONER'S REQUEST THAT
MASADA OXYNOL, LLC	)	THE ADMINISTRATOR OBJECT
	)	TO ISSUANCE OF A
Permit ID: 3-3309-00101/00001	)	STATE OPERATING PERMIT
Facility NYSDEC ID: 3330900101	)	
	)	
Issued by the New York State	)	
Department of Environmental Conservation	)	Petition No.: II-2000-07
	)	
_____	)	

ORDER PARTIALLY GRANTING AND PARTIALLY DENYING
PETITION FOR OBJECTION TO PERMIT

The New York State Department of Environmental Conservation, Region 3 (NYSDEC) issued a state operating permit to Pencor-Masada Oxynol, LLC on July 25, 2000, authorizing construction of the Orange Recycling and Ethanol Production Facility (Masada).[1] The Masada permit was issued pursuant to title V of the Clean Air Act (CAA or the Act), 42 U.S.C. §§ 7661-7661f, CAA §§ 501-507, the federal implementing regulations, 40 CFR Part 70, and the New York State permitting regulations. Between June and September, 2000, the Environmental Protection Agency (EPA) received 35 petitions from 29 different petitioners, requesting that EPA object to the issuance of the Masada permit.

Under section 505(b) of the Act, EPA may object to the issuance of a permit if the Administrator finds that it is "not in compliance with the applicable requirements of the [Act], including the requirements of an applicable [state] implementation plan." The Act and EPA's implementing regulations provide that, if the Administrator does not object in writing, "any person" may petition the Administrator to object to the permit. CAA § 505(b)(2); 40 CFR 70.8(d).

[1] Pencor-Masada Oxynol, LLC is the corporate owner of the Orange Recycling and Ethanol Production Facility to be built in Middletown, New York. In the interests of clarity, this Order uses the term "Masada" to encompass both the corporate owner and the Middletown facility at issue here. The phrase "the Masada permit" refers to the permit issued by NYSDEC for the Middletown facility.

The petitions with respect to this facility raise a number of distinct claims.[2] For organizational purposes, these claims have been divided into two categories, the first addressing administrative/public participation issues and the second addressing technical/regulatory issues. More specifically, the petitioners allege that the NYSDEC did not comply with the applicable public participation requirements in issuing the Masada permit because NYSDEC did not: (1) notify the public of the extended opportunity for comment; (2) make available to the public requisite information necessary to review the permit; (3) offer the public an opportunity to comment on significant changes to the draft permit; (4) properly inform the public of its right to petition to the EPA Administrator; (5) substantively review public comments; (6) grant requests for a second public hearing, and (7) translate the public notices and key documents for the non-English speaking members of the community.

The petitioners also assert that the Masada permit did not comply with the applicable technical/regulatory requirements in that the permit: (1) fails to assure compliance with major source preconstruction permitting requirements under the Act; (2) does not assure compliance with several allegedly applicable federal emissions standards, (3) omits required provisions governing chemical accident prevention requirements, namely section 112(r) of the Act and EPA's implementing regulations at 40 CFR Part 68, and (4) does not comply with the Executive Order 12898 on environmental justice. The petitioners have requested that EPA object to the issuance of the Masada permit pursuant to § 505(b)(2) of the Act and 40 CFR 70.8(c) for these reasons.

EPA has performed an independent review of the petitioners' claims. Based on review of all the information before me, including the Masada permit of July 25, 2000, the permit application, and the information provided by the petitioners in the petitions, I hereby grant the petitions in part, and deny in part. In sum, I am granting the petitions insofar as they claim that (1) NYSDEC must provide an opportunity for public review of selected portions of the final operating permit issued to Masada, and (2) that applicable reporting and recordkeeping requirements of NSPS Subpart Db (governing Industrial, Commercial and Institutional Steam Generating Units) should be included in the permit. The petitioners' other requests are denied for the reasons set forth in this Order.

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[2] Robert C. LaFleur, president of Spectra Environmental Group, Inc. (Spectra), submitted the most detailed petition. Spectra's petition raised many of the same issues posed by other petitioners. For purposes of this Order, unless specified otherwise, the term "petitioner" refers to the petition received from Spectra. However, this Order also responds to the petitions submitted by Lois Broughton, Wanda Brown, Louisa and George Centeno with Leslie Mongilia, Maria Dellasandro, R. Dimieri, Lori Dimieri, Dawn Evesfield, Marvin Feman, Deborah Glover, Anne Jacobs, Barbara Javalli-Lesiuk, Marie Karr, June Lee, Ruth MacDonald, Bernice Mapes, Donald Maurizzio, Alice Meola, Daniel Nebus, Jeanette Nebus , Mr. and Mrs. Hillary Ragin, M. Schoonover and Mildred Sherlock, LaVinnie Sprague, Matthew Sprague, Hubert van Meurs, Alfred and Catherine Viggiani, Paul Weimer and Leonard Wodka. EPA has been unable to verify the correct name and address for Dawn Evesfield, R. Dimieri and Lori Dimieri.

I. STATUTORY AND REGULATORY FRAMEWORK

Major stationary sources of air pollution and other sources covered by title V are required to obtain an operating permit that includes emission limitations and such other conditions as are necessary to assure compliance with applicable requirements of the Act. See CAA §§ 502(a) and 504(a). Section 502(d)(1) of the Act calls upon each State to develop and submit to EPA an operating permit program to meet the requirements of title V. EPA granted interim approval to the title V operating permit program submitted by the State of New York effective December 9, 1996. 61 Fed. Reg. 57589 (Nov. 7, 1996); see also 61 Fed. Reg. 63928 (Dec. 2, 1996) (correction); 40 CFR Part 70, Appendix 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 compliance requirements to assure compliance by sources with existing applicable requirements. 57 Fed. Reg. 32250, 32251 (July 21, 1992). One purpose of the title V program is to enable the source, EPA, States, and the public to clearly understand the regulatory requirements applicable to the source and whether the source is meeting those requirements. Thus, the title V operating permits program is a vehicle for assuring that existing air quality control requirements are appropriately applied to facility emission units in a single document and assuring compliance with these requirements.

In New York State, title V operating permits are issued to new sources through the same process which authorizes them to construct the facility. The procedures for issuing construction permits, the State's New Source Review (NSR) program, were in place prior to approval of the title V program, and have been combined with the State's title V program, so that this program meets the combined requirements of both NSR and title V. While combining the programs offers simultaneous review of the NSR requirements and the title V requirements, it does not alter the underlying requirements of these two programs: NSR establishes case-by-case control requirements for certain new sources, while title V assures (through permitting, monitoring, certification, etc.), compliance with all Clean Air Act requirements (including NSR, where applicable).

Under section 505(a) of the Act and 40 CFR § 70.8(a), States are required to submit to EPA for review all operating permits proposed for issuance, following the close of the public comment period. EPA is authorized under section 505(b) of the Act and 40 CFR § 70.8(c) to review proposed permits, and object to permits that fail to comply with applicable requirements of the Act, including the State's implementation plan (and the associated public participation requirements), or the requirements of 40 CFR Part 70.

If EPA does not object to a permit on its own initiative, section 505(b)(2) of the Act and 40 CFR 70.8(d) provide that any person may petition the Administrator, within 60 days of the expiration of EPA's 45-day review period, to object to the permit. When a petitioner asks EPA to object to a

title V permit, a petitioner must provide enough information for EPA to discern the basis for its petition. Under section 505(b)(2) of the Act and 40 CFR § 70.8(c), EPA can only object to a title V permit in response to a citizen petition based on the same grounds on which EPA could have objected on its own initiative. The statute provides that a petition for review 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 and prior to an EPA objection. If EPA objects to a permit in response to a petition and the permit has been issued, EPA or the permitting authority will modify, terminate, or revoke and reissue such a permit consistent with the procedures in 40 CFR §§ 70.7(g)(4) or (5)(i) and (ii) for reopening a permit for cause.

II. ISSUES RAISED BY THE PETITIONERS

As discussed above, this Order divides the issues raised into two categories: administrative/public participation issues, and technical/regulatory issues. This is solely for clarity, and should not be read as conferring different legal status to the issues in either category.

A. Administrative Issues

The petitioners have requested that EPA object to Masada=s permit based on a number of alleged flaws in the administrative processing of the permit. These administrative issues each relate to whether the NYSDEC provided adequate procedures for public notice pursuant to 40 CFR § 70.7(h) and 6 NYCRR part 621. Spectra's petition identified five such issues. Ms. Nebus and Ms. Glover raised some of the same issues, as well as two others. Public participation is an important part of the title V process, and is an appropriate subject of an objection by EPA pursuant to 40 CFR § 70.8(c)(3)(iii). Each of the administrative allegations are discussed below.

1. Extended Comment Period

Petitioner Spectra asserts that the NYSDEC never explicitly advised members of the public of their right to submit written comments up until the close of the public hearing. The issue raised in this claim points to NYSDEC's failure to explicitly advise the public of the right to submit written comments after the NYSDEC public comment period closed on October 22, 1999, and prior to the public hearing of December 29, 1999.

Both New York state and EPA regulations provide for reasonable public notice of title V permits. 6 NYCRR 621.6(a)(2), 40 CFR 70.7(h). Where a public hearing is scheduled, NYSDEC needs to give a 30-day notice to the public prior to the hearing. 40 CFR 70.7(h). NYSDEC satisfied this requirement by publishing a hearing announcement notice on November 24, 1999. Neither the part 70 regulations nor the State rules require NYSDEC to explicitly advise the public that comments may be submitted up until the close of the hearing. See 40 CFR part 70.7(h); NYCRR §§ 621.6 and 621.7. Given that comments were solicited for the day of hearing, it is implicit that comments submitted

up to that date would also be accepted without prejudice. Indeed, no party has informed EPA of any specific comments that were not considered by NYSDEC due to untimeliness and there has been no allegation that any of the petitioners suffered harm. Accordingly, EPA denies the petition on this point.

2. Unavailability of Certain Documents

Spectra claims that certain important documents were not made available to the public. Spectra lists EPA letters of October 20, 1999, December 6, 1999, and December 22, 1999 among those not available. Spectra also names a submittal from Masada to NYSDEC on November 2, 1999 as not available. Spectra further alleges that the revised applications (August 1999) and support documents (Masada's June 1999 pilot plant emissions testing data) were not made available to the public or EPA during the public comment period. Spectra claims that the public was completely unaware of these documents during the public comment period, and this was "information necessary to meaningfully review the proposed project," therefore NYSDEC violated 40 CFR 70.7(h)(2).

As the Administrator stated in the Borden Chemical Inc. petition response, petition VI-01-01, available at http://www.epa.gov/region07/programs/artd/air/title5/petitiondb/petitions (under Borden_response1999), "access to information is a necessary prerequisite to meaningful public participation." Public involvement is required throughout the CAA title V permit process (see, e.g., CAA section 502(b), 503)(e) and 505(b)), EPA's implementing regulations (see 40 CFR §§ 70.7 and 70.8) and New York regulations (6 NYCRR 621). However, EPA disagrees with Spectra, finding that the documents in questions were neither legally nor technically necessary for the public to meaningfully review and comment on the draft permit. NYSDEC made available Masada's complete permit application, including July and August 1999 amendments, the draft permit, and the State Environmental Quality Review Determination. As explained below, based on our review of the information provided by NYSDEC in this case, I find that the public had access to sufficient documentation to formulate comments and meaningfully participate in the permit process.

The documents named by Spectra fall in two categories: those that were generated prior to the public comment period, and those that were generated later. Regarding the pre-comment period documents, NYSDEC informed EPA that it believes that the application revisions of July 26 and August 6, 1999, were part of the permit application that was placed in the Middletown library at the beginning of the comment period and that the draft permit reflected all the last minute revisions.[3] The September 22, 1999, Notice of Complete Application, published in the State's Environmental News Bulletin, notes that "the draft permit and permit applications are available for review during normal business hours at the DEC Region 3 Office." It further notes that "[t]he application consists of a two volume part 360 solid waste engineering report/plan dated July 1999; an air emissions estimate dated

[3] EPA confirmed this via a telephone conversation between L. Steele, EPA Region 2, and T. Miller, NYSDEC Region 3, on January 5, 2001, and a subsequent conversation between L. Steele and M. Merriman, NYSDEC Region 3, on January 8, 2001.

December 1998, revised July 1999; and an air quality modeling report, dated March 1999, amended August 1999."

The other early document Spectra names is the June 1999 report of the pilot plant emission testing data. NYSDEC states that this document was not in the public docket because their staff never requested the actual pilot testing data as part of the Part 70 permit application review. They explain that it was not necessary for Part 70 purposes as they relied on Masada's summaries of the data for permit review purposes. EPA finds that the information in this report was adequately summarized by the documents provided by Masada, and therefore there was no need for NYSDEC to obtain the raw data. *Cf*. Akpan v. Koch, 75 N.Y.2d 561, 573-74 (1986) (holding that "[t]here is no requirement that [an environmental impact statement] contain all the raw data supporting its analysis so long as that analysis is sufficient to allow informed consideration and comment on the issues raised").

The other documents cited by Spectra were generated between October 20, 1999 and December 22, 1999, spanning the time between the public comment period and the public hearing. On October 20, EPA Region 2 commented to NYSDEC on the draft permit. On November 2, Masada responded to NYSDEC, addressing many of EPA's comments. On December 6, EPA Region 2 made additional comments to NYSDEC, as part of the regular process of permit review. This response relied on information provided by Masada as well as EPA headquarters. On December 22, EPA Region 2 responded to Mayor DeStefano's letter of October 22, 1999.

None of these documents introduced new information that was material to the design or operation of the Masada project. Although some of the information in the November 2, 1999 letter was ultimately useful in clarifying the applicability of some requirements (see II.B1c below), it did not amend the permit application. These documents reflect the on-going dialogue between EPA and NYSDEC that is envisioned in section 505 of the Clean Air Act. The Act provides the public an opportunity to review and comment upon the draft permit, but does not require that the public be afforded an opportunity to respond to EPA's comments or NYSDEC's response. *Cf*. Rybachek v. EPA, 904 F.2d 1276, 1286 (9th Cir. 1990) (denying claims of notice and comment violations because the petitioners' "unviolated right was to comment on the proposed regulations, not to comment in a never-ending way on EPA's responses to their comments."). In addition, the December 22, 1999 letter from EPA Region 2 to Mayor DeStefano was not relied upon by NYSDEC in making its permitting decision and NYSDEC did not violate the notice and comment procedures by failing to make EPA's letter publicly available.

When NYSDEC transmitted the proposed permit to EPA, it updated the Middletown library docket with several additional documents, including many of the documents discussed above. NYSDEC's June 2, 2000, letter to concerned citizens announced that EPA's October 20, 1999 letter, Masada's November 2, 1999 response, EPA's December 6, 1999 comments, and several other documents had been sent to the Middletown library. Spectra indeed acknowledges that it received and

"subsequently commented on the previously unavailable EPA and Masada correspondence." Spectra petition, at 27.

EPA encourages NYSDEC to manage their files as carefully as possible, so that information requests can be met expeditiously. EPA appreciates NYSDEC's willingness to use local libraries as document repositories for certain projects. Although there is no specific federal requirement to do so, this is a resourceful way to meet citizens' needs. During the Masada project review, there may have been delays in adding new documents to the public file placed in the Middletown library as they arrived in the office, and NYSDEC's document management procedures may not be flawless. Nonetheless, the public in this instance had access to and in fact commented upon the complete draft permit, the application, and ultimately the documents at issue. Therefore, EPA finds no violation of 40 CFR 70.7(h)(2), and denies the petition with respect to this issue.

3. Opportunity for Comment on Changes to Permit

The Spectra petition claims that "[t]he public...was not provided an opportunity to review the 'latest draft title V permit' for the Project" (Spectra petition, p. 12) and "[t]he public comment period was based on a September draft permit that is a shell of what was ultimately granted to Masada." (Id. at 26). Spectra expresses the concern that NYSDEC excluded the public from meaningfully reviewing and commenting on the proposed permit sent to EPA in May 2000. Petitioner Nebus raises similar issues in her petitions of July 23 and August 7, arguing that such significant modifications of a draft permit without additional public notice violate 40 CFR § 70.7(h).

The CAA and its implementing regulations at part 70 provide for public comment on "draft" permits and generally do not require permitting authorities to conduct a second round of comments when sending the revised "proposed" permit to EPA for review.[4] It is a basic principle of administrative law that agencies are encouraged to learn from public comments and, where appropriate, make changes that are a "logical outgrowth" of the original proposal. See, e.g., Sierra Club v. Costle, 657 F.2d 298, 352 (DC Cir. 1981). However, there are well recognized limits to the concept of "logical outgrowth" in the context of Agency rulemaking that, by analogy, apply to title V permits as well. As the US Court of Appeals for the DC Circuit has explained, "if the final rule deviates too sharply from the proposal, affected parties will be deprived of notice and an opportunity to respond to the proposal." Small Refiner Lead Phase-Down Task Force v. EPA, 705 F.2d 506, 547 (DC Cir. 1983) (vacating portion of final CAA rule governing leaded gasoline because agency notice was "too general" and did not apprise interested parties "with reasonable specificity" of the range of alternatives

[4] The CAA in part 502 (b)(6) specifies that one required element of a title V permit program is "adequate, streamlined, and reasonable procedures...for public notice, including offering an opportunity for public comment and a hearing." 40 CFR 70.7 (h) mirrors this language of the Act, stating that, "...all permit proceedings...shall provide adequate procedures for public notice including offering an opportunity for public comment and a hearing on the draft permit."

being considered). See also Shell Oil Company v. EPA, 950 F.2d 741 (DC Cir. 1991) (remanding final RCRA "mixture and derived from" rule because "interested parties cannot be expected to divine the EPA's unspoken thoughts"); Ober v. EPA, 84 F.3d 304, 312 (9th Cir. 1996) (requiring an additional round of public comment on EPA's approval of Arizona's PM-10 Implementation Plan because public never had an opportunity to comment on state's post-comment period justifications which were critical to EPA's approval decision). Courts have noted that providing the public meaningful notice improves the quality of agency decisionmaking, promotes fairness to affected parties, and enhances the quality of judicial review. Small Refiner, 705 F.2d at 547. I find that these fundamental principles apply with equal force in the context of title V permitting. Otherwise, if a final permit no longer resembled the permit that the public commented upon, then the public would be deprived of the opportunity to comment guaranteed by the CAA and EPA's rules.

Determining how much notice is sufficient is inherently a matter of judgment. In this case, however, the operational constraints imposed on the facility in the proposed permit were so significantly different from those in the draft permit that I find that additional public notice on this particular aspect of the permit is required. The NYSDEC's reason for including operational constraints in Masada's draft permit was to effectively limit the potential to emit (PTE) and prevent this source from being a "major source"[5] of air emissions for PSD and/or NSR purposes. The PTE is a critical factor in determining the applicability of the CAA major source permitting requirements. Many large facilities are potentially subject to major source preconstruction requirements, unless they install pollution control equipment and/or accept operational constraints, such as limitations in the hours of operation, raw material throughput or production rate, that limit the facility's PTE below major source thresholds.

Masada's title V application and permit do not list the major source preconstruction requirements as applicable requirements. Therefore, for pollutants where the source's unconstrained capacity exceeds major source thresholds, the permit must constrain the facility to emit air pollution only at levels that would not trigger major source applicable requirements. In order to be cognizable as limits on the source's PTE, such constraints must always be stated in a practically enforceable form in a source's construction permit as well as its operating permit(s). Since the source is subject to title V permitting, any preconstruction permit requirements, including PTE limits, qualify as applicable requirements under part 70, and must be set forth in the source's operating permit.

Generally, applicable requirements in permits are subject to many degrees of technical and legal review before and during rulemaking or permitting procedures. However, in the case of PTE limits, the

[5] A major source is defined under 40 CFR ' 52.21 as any stationary source (or any group of stationary sources that are located on one or more contiguous or adjacent properties, and are under common control of the same (or persons under common control)) belonging to a single major industrial grouping that emits or has the potential to emit: 1) 250 tons per year (tpy) or more of any air pollutant regulated under title I of the Act; or 2) 100 tpy of any regulated air pollutant if the source belongs to one of the categories of stationary sources as listed under title I of the Act.

State generally fashions the necessary operational constraints and subjects them to review for the first time during the permitting process. In the case of the Masada facility, the PTE-limiting terms were originally drafted by NYSDEC, as is normally done. When EPA staff commented on the draft permit, they raised several concerns with the enforceability of the PTE limits. Subsequent comments from citizens raised similar concerns.

After the close of the public comment period, NYSDEC revised the PTE limits with input from EPA and Masada, in order to better define the operational constraints and associated method for verifying the source's emissions. While the need to improve the PTE limits was identified by the concerns raised in the comment period, the final permit ultimately adopts a fundamentally different approach to limit the source's PTE than the one found in the draft permit. It is for this reason that I am requiring a new review period for these new PTE limits. As explained further in section II.B.1.c below, it is EPA's judgment that this new approach is a valid and enforceable way to limit PTE in certain cases, but additional public notice is required to finally determine whether it is appropriate to apply this approach to this facility and whether the permit does so in an appropriate manner.

Masada's draft permit expressed annual emissions limits on sulfur dioxide (SO_2) and nitrogen oxides (NOx) in terms of a 12-month rolling average. These limits, under EPA policy, would have to rely on short term (e.g., pounds/hour) emissions rates, coupled with restrictions on the source's hours of operation (e.g., hours/year). Indeed, much of EPA Region 2's comments, as well as the public comments filed on the draft permit, focused on the specifics of these short-term emissions rates and operational limitations. In contrast, the permit ultimately issued by NYSDEC does not rely on short term emissions rates as the basis for calculating an operational limit to restrict the source's PTE. Instead, it relies on real time data from continuous emissions monitors (CEMs). Short-term emissions rates are still in the permit, but the issued permit reflects a change to indicate that these limits are no longer used for PTE-limiting purposes.

EPA observes that the approach used in the issued permit is a relatively new (and more flexible) approach that takes advantage of continuous emissions monitoring systems. While the draft permit calculated emissions as a function of two factors – short-term emissions rate and hours of operation – the issued permit directly measures emissions with real-time accurate emissions measurements. Furthermore, whereas the draft permit relied on a 12-month rolling average, the final permit instead relies on a 365-day rolling total, resulting in a different reporting and recordkeeping regime, and effectively enabling more frequent compliance checks. To support this approach, the final permit requires extensive data collection procedures and quality assurance measures. Similarly, rather than impose exact limits on the hours of operation, the proposed permit allows the source to operate as long as its 365-day measured total is below the major source cutoff. Thus, specific limits on hours of operation were excluded from the PTE limiting language.

EPA finds that, as to the terms of the permit which were intended to express operational constraints on this facility that effectively limit Masada's PTE below major source thresholds,

specifically permit conditions 36 and 41, there has not been adequate adherence to the applicable public participation requirements. The draft permit gave no indication that such a different and relatively new approach might ultimately be contained in the issued permit. In fact, it suggested that the PTE limit would be a typical limit based on short-term emissions rates and limits on hours of operation. EPA's and the public's comments are clearly based on this understanding. As such, EPA finds that it is unreasonable to conclude that the public had an opportunity to comment on whether the PTE limit ultimately found in Masada's permit assures compliance with applicable requirements. Therefore, EPA is granting the request to object to the permit according to 40 CFR 70.8(c)(3)(iii), with respect to this issue.

Pursuant to Sections 505(b) and 505(e) of the Act, 42 U.S.C. §§ 7661d(b) and (e), and 40 C.F.R. §§ 70.7(g)(4) or (5) and 70.8(d), EPA objects to the title V operating permit issued to Masada by the NYSDEC on July 25, 2000. NYSDEC shall modify the permit by re-opening the above cited portion of the permit to provide for public participation based on the changes made after the initial public comment period. This process includes a new 30-day comment period for the public, a new review period for EPA, and a new petition period for commenters. Only the portions that speak to the monitoring, recordkeeping, and operational requirements that cap the facility's PTE need to be renoticed, and comments do not need to be accepted on other aspects of the permit. In this new public notice, NYSDEC should clarify that only conditions 36 and 41, and at least pages 3, 5, and 10-15 of the facility description, are being reopened pursuant to this Order.

4. Notification of Petition Period

Petitions received from Spectra and from Ms. Nebus claim that NYSDEC failed to properly inform the public with respect to the commencement of the public's 60-day period for petitioning the EPA Administrator to object to the issuance of the Masada title V permit. NYSDEC sent a letter to all concerned citizens dated June 2, 2000, announcing that EPA has completed its review and found the proposed permit to be acceptable. NYSDEC further stated, regarding the opportunity for citizens to petition, "[y]ou will be notified when this (the 60-day) period begins." When the final permit was issued on July 25, 2000, NYSDEC then advised the public that their June 2, 2000 letter erred in its statement about the commencement of the 60-day petition period. The July 25, 2000, letter indicated that the 60-day petition period began on June 19, 2000 and would end on August 21, 2000. Spectra and Ms. Nebus claim that NYSDEC shortened the statutory 60-day petition period as a result of their error and seeks an EPA objection to the issuance of the final permit on the basis that NYSDEC failed to properly inform the public of its right to petition.

Section 505(b) of the Act provides those who commented during the public review period have 60 days to petition the EPA Administrator to object to the issuance of a title V permit if EPA did not so object during its 45-day review period. This 60-day petition period immediately follows EPA's 45-day review period. Neither the Act nor the current part 70 regulations require the State to inform the public of the commencement of EPA's 45-day review period and of the citizen's 60-day petition period.

Nonetheless, NYSDEC took it upon itself to notify the public when the petition period began. However, NYSDEC misread the part 70 regulations and misinformed the public. NYSDEC's mistake may have caused confusion regarding the time period in which the public may petition the EPA Administrator. Spectra alleges a violation of 40 CFR 70.8(d) as a result of NYSDEC's error which may have, in effect, shortened the public's petition period for those who relied solely on NYSDEC's advice and not the rules themselves. NYSDEC did not and could not shorten the statutory period for public petitions. Its inaccurate statement may have misled the public. However, as discussed below, I find this to be a harmless error that did not cost any petitioner the opportunity to file a title V petition. *See e.g.* Massachusetts Trustees of Eastern Gas & Fuel Associates v. United States, 377 U.S. 235, 248 (1964) (an error can be dismissed as harmless "when a mistake of the administrative body is one that clearly had no bearing on the procedure used or the substance of the decision reached").

NYSDEC's notice would not have mattered to those who were aware of the statutory requirement since they knew when the 60-day petition period commenced. However, those who relied on NYSDEC's notification had 36 fewer days to prepare and file their petitions. Despite NYSDEC's error, many members of the community were aware of the proper filing deadline and submitted timely petitions to the Administrator. While EPA acknowledges that NYSDEC's error may have caused some confusion to the public, it was unintentional and inadvertent. Nevertheless, this error may have contributed to the filing of a petition on September 11, 2000 (21 days late) from Louisa Centeno, George Centeno, and Leslie Mongilia of New Hampton, New York. To ensure that NYSDEC's error does not frustrate the public participation process, I am exercising my discretion to consider their letter as a petition to reopen the permit for cause under 40 CFR 70.7(f) and (g). I therefore address their concerns on their merits in the below Order. On the basis that NYSDEC's error resulted in no harm being done to the public's opportunity to file petitions concerning the Masada project, I decline to object to the permit on these grounds.

5. Lack of Substantive Review of Comments

Spectra claims that "petitioners' comments have not been substantively reviewed or responded to by NYSDEC or EPA as they post-dated EPA's conclusions and findings on the matters raised." Spectra petition, at 13. In particular, the petition claims that NYSDEC's responsiveness summary did not fully address such fundamental issues as PSD/NSR applicability raised during the public comment period. Spectra argues that this is an indication that these fundamental issues and questions were not yet resolved prior to the issuance of the final permit. In responding to the PSD and NSPS applicability issues, NYSDEC referred to EPA's letters of December 6, 1999 and March 29, 2000 letters addressing PSD and NSPS applicability without any additional explanation of NYSDEC's position or justification. The petitioner alleges that NYSDEC did not perform a substantive review of all comments received, and therefore did not intend to consider public comments in its final permit decision.

EPA recognizes the importance of public scrutiny in the permitting process as evidenced in the public review and administrative petition opportunities offered in title V of the CAA and its

implementing regulations. The law requires that the public be allowed to review proposed projects and offer comments relevant to requirements applicable to the source. Such comments would most certainly assist the State in making a sound permit decision. The law also requires the State to consider comments received, but it does not require that all comments be incorporated into the final permit. It also does not indicate how much detail must be included in a permitting authority's response to any comment received. As a general matter, EPA recognizes that governmental bodies are entitled to a "presumption of regularity." *See e.g.* Citizens to Preserve Overton Park, Inc., et al. v. Volpe, Secretary of Transportation, 401 U.S. 402, 415 (1971). In the absence of specific evidence, EPA will not speculate that NYSDEC has failed to consider all comments. As a result, EPA finds that NYSDEC did not violate either the part 70 regulations or the State code at 6 NYCRR 621.9(e)(1) in referring to EPA's analyses of December 6, 1999, and March 29, 2000, to respond to the PSD and NSPS issues raised by commenters. EPA denies the petition on this issue.

6. Improper Denial of Request for a Second Public Hearing

Ms. Nebus claims NYSDEC violated the public participation requirements of 40 CFR §70.7(h) by not responding to her numerous requests, during and after the public comment period, for a second public hearing. The second hearing request denial was given to her verbally by NYSDEC after her numerous written and telephone requests to NYSDEC. Ms. Glover similarly complained that the December 29th public hearing "did not provide the opportunity for all affected parties to formally submit comments on the proposed facility ... to ask questions and share concerns for their health and safety." Ms. Glover also stated that another public hearing was requested on December 29, 1999 and on several subsequent occasions. The petitioners alleged that NYSDEC acted inappropriately in not granting their requests for a second public hearing.

EPA disagrees that DEC's failure to grant a second hearing request is a violation of the applicable public participation requirements. Although NYSDEC could have been more responsive to the petitioners' requests for a second hearing (e.g., responded by telephone or mail), neither 40 CFR §70.7(h) nor 6 NYCRR Part 621.6 and 621.7 require NYSDEC to honor requests for a second public hearing. The New York regulations at 6 NYCRR Part 621 list criteria for determining whether a public hearing will be held on an application. NYSDEC utilized those criteria and determined to hold a public hearing on December 29, 1999. New York regulations do not require multiple hearings, and thus the state can exercise its discretion whether to conduct a second hearing. In this case, the public had an opportunity to participate in the title V permit process by submitting written comments to NYSDEC and by speaking during the December 29th hearing. Many concerned citizens, including Ms. Nebus and Ms. Glover, availed themselves of these opportunities. Thus, NYSDEC was able to hear the community's views about the proposed facility and incorporate their concerns into the State's decisionmaking process. As a result, the decision whether to hold a second public hearing rested with NYSDEC and EPA denies the petitioners' allegations that NYSDEC violated the applicable public participation requirements by not granting requests for additional public hearings.

7. Failure to Translate Public Documents for Spanish Speaking Community

Ms. Nebus and Mrs. Glover allege that Spanish speaking members of the Middletown community were not aware of the proposed Masada project and its potential impacts on health and other issues and could not voice their concerns in the form of written comments or at the hearing. I interpret this complaint to broadly suggest that NYSDEC violated the public participation procedures by failing to translate the public notices or the key documents related to the Masada facility into Spanish. Similarly, they suggest that translators should have been made available at the December 29th hearing.

EPA disagrees with petitioners that NYSDEC violated the federal or State public participation procedures required by title V of the Act by not providing Spanish translation for the public notices, certain documents, and during the December 29th, 1999 hearing. First, there is no record of this concern being raised to NYSDEC during the comment period, and thus, under 40 CFR 70.8(d), it is inappropriate to raise the issue for the first time in a petition to the Administrator. Second, the record shows there was ample public participation on the Masada permit. The public comment period started on September 22, 1999 and comments were received up until the December 29, 1999 hearing. During this 3-month period, the public was afforded the opportunity to review records held in the NYSDEC regional office, to submit comments on the project, and to express concerns at the hearing. NYSDEC developed a mailing list including over eighty citizens and interested parties, received eighteen letters on the draft permit and estimates that at least 500 people attended the public hearing. Finally, neither the part 70 regulations nor the State rules require NYSDEC to provide translation of these permit documents or during this public hearing. See 40 CFR part 70.7(h); NYCRR '' 621.6 and 621.7. Therefore, the petitioners have not demonstrated that the lack of translations during the comment period or translators at the public hearing violated the public participation provisions of either the State or federal rules implementing the Act.[6]

B. Technical Issues

1. Prevention of Significant Deterioration (PSD) Program Applicability

Part C of the Clean Air Act establishes the prevention of significant deterioration ("PSD") program, a preconstruction review program that applies to areas of the country that have attained the NAAQS. 42 U.S.C. §§ 7470-7479. In such areas, a major stationary source may not begin construction or undertake certain modifications without first obtaining a PSD permit. 42 U.S.C. §§ 7475(a)(1), 7479(1) & (2)(C). The PSD program includes two central requirements that must be satisfied before the permitting authority may issue a PSD permit. In broad overview, the program limits

[6] As discussed in section C.1 below, the petitioners may file a complaint under Title VI of the Civil Rights Act of 1964, as amended, and EPA's Title VI regulations if they believe that the state discriminated against them in violation of those laws by issuing the permit to Masada.

the impact of new or modified major stationary sources on ambient air quality and requires the application of the best available control technology (BACT). 42 U.S.C. § 7475.

NYSDEC determined that Masada was not subject to the preconstruction permitting requirements of the PSD program.[7] This determination was based on NYSDEC's finding that the facility would not emit any pollutant in major amounts, above which PSD applicability would be triggered. Specifically, the PSD program applies to the construction of major new stationary sources and modifications of existing stationary sources. Under the Act and EPA's implementing regulations, sources in certain identified categories are considered major if they have the potential to emit 100 tons per year (tpy) or more of a regulated pollutant. 42 U.S.C. § 7479, 40 CFR 52.21(b)(1)(i)(a). Sources in other categories are considered major if they have the potential to emit more than 250 tpy. In determining that the Masada facility is not a major source subject to PSD, NYSDEC looked at several key questions: (1) what is the "primary activity" of the Masada facility, which determines whether the PSD major source cutoff is 100 or 250 tpy; (2) if the major source cutoff for Masada is 250 tpy, is there an embedded source in a 100 tpy category (e.g., an embedded chemical process plant) whose emissions exceed 100 tpy; and (3) is the permit sufficient to assure that the emissions of the Masada facility will not exceed the applicable major source cutoff (either 100 or 250 tpy)? Petitioners Spectra, Ms. Glover and Ms. Nebus make several claims addressing each of these questions. Such claims are addressed separately below.

a. What is the primary activity of the Masada facility?

In determining the primary activity of a complex industrial facility, a permitting authority should consider the facility's operation as a whole. NYSDEC evaluated the Masada facility and concluded that its primary activity was refuse systems (Standard Industrial Classification (SIC) code 4953). Petitioners Spectra, Glover and Nebus challenge this conclusion, suggesting that the facility is primarily a chemical plant designed to manufacture ethanol, and should be identified as an industrial chemical processing facility (SIC Code 2869). Because under 40 CFR 52.21(b)(1)(i)(a), the 100 tpy major source threshold applies to "chemical process plants," but not to refuse processing facilities, this claim must be evaluated to determine if NYSDEC properly classified the source, and came to the appropriate conclusion that PSD did not apply to the Masada facility.

EPA finds that the petitioners have not demonstrated that the primary activity of the facility is chemical manufacturing. While certain factors tend to support the petitioners' claims, an examination of the facility's operations as a whole results in the opposite conclusion. As discussed below, this conclusion rests on a number of factors, including the relative share of the value of services rendered compared to the products sold, and the contractual relationship between the facility and Middletown and the neighboring communities.

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[7] The federal PSD regulations are codified at 40 CFR 52.21. Pursuant to 40 CFR 52.21(u), EPA has delegated NYSDEC the authority to run this program in New York.

Spectra asserts that the facility is a chemical process plant because it makes ethanol and carbon dioxide as products, and that numerous chemical processes such as acid hydrolysis, ion exchange, etc. occur at the facility. They point out that the original permit application submitted by Masada listed both SIC codes 4953 and 2869. Spectra also asserts that the facility uses municipal solid waste (MSW) only as an ingredient, and uses it in a different manner than traditional refuse systems. Spectra asserts that Masada will not "dispose" of waste, but rather will "convert" it to products, and argues that disposal is necessary for a facility to be classified as a refuse system. Finally, Spectra argues that most of the personnel and payroll at Masada will be dedicated to chemical processes.

For its part, Masada has argued that its principal product is a service rendered: the service of waste disposal. In support of this argument, Masada provided revenue estimates that over 70 percent of the revenue from the Middletown facility will come from tipping fees paid by the municipalities, and only 30 percent from the production of products like ethanol and carbon dioxide. However, Spectra calls these figures "suppositious," "not binding," and "speculative at best."

As the entity delegated authority to run the federal PSD program in New York, NYSDEC must rely on EPA regulations in assigning a primary activity to the Masada facility. EPA has long applied the "primary activity" test to categorize complex industrial sources for PSD. In cases where more than one activity is present at a source, the primary activity is determined by the source's "principal product (or group of products) produced or distributed, or services rendered."[8] In determining the principal products or services rendered, EPA considers, on a case-by-case basis, the particular circumstances at the source. The Standard Industrial Classification (SIC) Manual (published by the U.S. Government Printing Office, most recently in 1987) contains similar language to that used by EPA, and provides further discussion that, for its purposes, the principal product is to be determined by the relative share of value added, including the value of production for manufacturing, and the value of receipts for services. Generally, EPA believes that this is an approach appropriate for determining the principal product or service, and therefore, in establishing the primary activity for the source.[9]

Thus, in applying the primary activity test to the Masada facility, EPA believes it is appropriate to consider the revenue from refuse processing, in addition to the revenue from sale of chemical products. EPA expressed this view in a December 6, 1999 letter from Kathleen Callahan, Director, Division of Environmental Planning and Protection, EPA Region II, to Robert Warland, Director, Division of Air Resources, NYSDEC, ("December 6 letter"), which stated that "Masada's information indicates that more than 70 percent of the revenue generated by the project results from tipping fees associated with the collection of municipal solid waste and sewage sludge." The December 6 letter also

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[8] 45 Fed. Reg. 52695 (Aug. 7, 1980). See also U.S. EPA Office of Air Quality Planning and Standards, *New Source Review Workshop Manual*, Draft, 1990, page A-3.

[9] EPA further notes that there is no dispute in this case that the various interrelated activities at the Masada facility constitute a single source for PSD purposes.

indicated that EPA believes that the presence of a contractual relationship between Masada, the city of Middletown, and the surrounding towns to dispose of waste is itself evidence that the primary activity of the facility is refuse systems. In the original request for proposals to which Masada responded, the city sought an agreement with a facility to dispose of its waste, not to produce any product.[10] Although the production of ethanol may be integrated into the disposal facility to make the waste disposal more cost-effective, it is EPA's judgment that the facility is being built primarily to fulfill these municipalities' need to dispose of solid waste.

EPA Region 2's December 6 letter concluded that "the proposed facility is primarily a municipal waste collection and processing plant." NYSDEC relied in part on this letter in confirming its determination that PSD did not apply. Nothing in the Spectra petition refutes this conclusion. Neither the mere presence of chemical processing activity nor the mere production of chemical by-products is sufficient to determine the source's primary activity. The arguments set forth in the December 6 letter, and further discussed here represent an appropriate basis for NYSDEC to make a determination that the facility is a refuse system, and therefore subject to a 250 tpy PSD cutoff.

Furthermore, Spectra's statements about the speculative nature of Masada's revenue claims do not provide sufficient evidence to overturn NYSDEC's primary activity determination. Masada is legally obligated to provide NYSDEC with the information needed to make a PSD applicability determination, and to provide the best information available. While Masada acknowledges that the tipping agreements are not yet in effect, EPA does not find that NYSDEC erred in accepting Masada's revenue projections, which appear to be based on the best available information. Indeed, the rather large 70-30 dominance of tipping fees in the revenue estimate, in EPA's judgment, provides reasonable certainty that the majority of revenue from Masada will come from tipping fees. In addition, as noted above, this was only one factor of several that supported NYSDEC's determination. I also reject a related claim by Spectra that payroll or personnel activity should take precedence over revenue in establishing the primary activity, as Spectra's approach would ignore the facility's operations as a whole and Spectra has not demonstrated that such an approach is necessary based on the applicable requirements.

EPA also rejects the remaining arguments by the Spectra petitioners on the primary activity. EPA does not find conclusive the fact that the original permit application listed both SIC codes 4953 and 2869. Regardless of the number of SIC codes listed in the application, NYSDEC must make a primary activity determination, and ultimately did so, choosing refuse systems. The arguments that this source is different from traditional refuse systems, that the source uses MSW as an ingredient, and that it will not "dispose" of MSW, but rather "convert" it to products are insufficient to demonstrate that the facility is not appropriately classified as a refuse system. EPA observes that, while the Masada process is technologically innovative, and differs from many traditional types of waste processing facilities, it is

[10] Request for Solid Waste Facility Development and Management Proposals, issued by the city of Middletown on September 1, 1994.

still primarily engaged in waste minimization. The semantic difference between "disposal" and "conversion" has no regulatory consequence, because both are methods of minimizing solid waste, and both occur at the Masada facility.

For these reasons, EPA finds that NYSDEC acted appropriately in classifying the Masada facility as a refuse system.

b. Is there an embedded source in a 100 tpy category whose emissions exceed 100 tpy?

As discussed above, in evaluating Masada's request for a permit, NYSDEC determined that PSD did not apply. The basis for this determination was that the potential-to-emit for the facility was below the relevant PSD major source cutoffs for a source whose primary activity is refuse systems (SIC 4953). However, the PSD applicability test contains an additional step for facilities in a 250 tpy source category such as refuse systems. The additional step requires an evaluation of the facility to determine if there is a portion of the plant (which EPA calls an "embedded" or "nested" facility or source) which could be classified in one of the categories with a 100 tpy major source cutoff. If an embedded facility exists, the emissions from the embedded facility must be estimated separately, and if they exceed the 100 tpy cutoff, the embedded facility is itself considered a major source and subject to the PSD requirements.[11]

At the Masada facility, NYSDEC determined that there was no embedded facility subject to the PSD requirements. The permit record indicates that the most likely candidate for an embedded facility is a "chemical process plant," which is a source category with a 100 tpy major source cutoff under applicable EPA regulations, 40 CFR 52.21(b)(1)(i)(a). Indeed, NYSDEC noted in early discussions with EPA that there is "Industrial Organic Chemicals activity" at the source.[12] However, NYSDEC determined that, while there is an embedded chemical process plant, the emissions of any PSD pollutant from it would be below the major source size. NYSDEC reasoned that the gasifier's[13]

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[11] See, for example, EPA's New Source Review Workshop Manual, Draft, October 1990, at A.23, and the July 6, 1992, letter from Edwin Erickson, EPA Region 3 Regional Administrator, to George Freeman, Reserve Coal Properties Company (available at http://www.epa.gov/rgytgrnj/programs/artd/air/nsr/nsrmemos/primact.pdf).

[12] April 7, 1999 letter from Robert J. Stanton, NYSDEC Region 3 to S. Riva, EPA Region 2.

[13] Some confusion surrounds the terms "gasifier" and "boiler." For clarity, the term "gasifier" is used in this Order to refer to the unit where the gasification of lignin, and its subsequent oxidation, occurs. Energy is recovered from this process to produce steam used for other parts of the Masada process. For this reason, various parties refer to the gasifier as the gasifier/boiler. The term "package boiler" is used in this Order to refer to a separate natural gas boiler where natural gas is combusted to produce additional steam needed for the Masada process. Together, these two units are sometimes referred to as the facility's boilers. Emissions from the gasifier and the package boiler are eventually vented to the same stack, which is sometimes referred to as the gasifier/boiler stack.

emissions are best attributed to waste processing operations of the facility and that, therefore, the emissions from the embedded chemical plant would be well below the 100 tpy source cutoff, and PSD would not apply.

The Spectra petitioners argue that the emissions from the gasifier at the Masada facility should be attributed to the embedded chemical plant emissions, not waste processing. They argue that the gasifier is an essential part of the overall ethanol production operation. It gasifies the lignin,[14] combusts the gases, and recovers some of the energy produced, using it to provide steam back to the various waste and chemical processing operations. Furthermore, because virtually all of the lignin is eliminated in the gasifier, and without the gasifier the lignin would likely have to be landfilled, petitioners argue that the gasifier plays an essential waste disposal function in support of the ethanol production. As such, they believe its emissions should be attributed to ethanol manufacture.

EPA has considered the petitioners' arguments and nonetheless finds that Spectra has not demonstrated that there is a chemical process plant with emissions exceeding the PSD major source cutoff. There is little dispute that ethanol production falls within the category of a chemical process plant. EPA has determined that the source category "chemical process plant" includes activities defined within SIC major group 28.[15] This group includes "...establishments producing basic chemicals...such as acids, alkalis, salts and organic chemicals."[16] Thus, although the primary activity of the Masada facility is refuse processing, the presence of ethanol (an organic chemical) production indicates that an embedded chemical process plant is also present. However, EPA believes that the gasifier emissions do not belong with the embedded chemical plant because the gasifier is essential to the Masada facility's primary activity - waste processing.[17]

The key determinations in assessing the embedded chemical plant's emissions are (1) the primary activity of the facility, and (2) the activities at the facility which are principally devoted to activities other than this primary activity. Activities not principally devoted to the primary activity may be considered part of an embedded source. In the case of the Masada, as stated above, the primary activity of the facility as a whole is refuse processing. Determination of this primary activity is always

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[14] "Lignin" is the term Masada uses to describe the general process residue that remains after the hydrolysis of the municipal waste – residue that is eventually combusted in the gasifier. Lignin is not a technical term and has no meaning within the context of EPA or NYSDEC regulations.

[15] Memo from Ed Reich, Director, Division of Stationary Source Enforcement, EPA Office of Air, Noise, and Radiation, to Thomas Devine, Director, Air and Hazardous Materials Division, EPA Region 4, dated August 21, 1981.

[16] "Standard Industrial Classification Manual," 1987, U.S. Government Printing Office, at p.132.

[17] As noted in the preamble to the PSD regulations, "[w]here a single unit is used to support two otherwise distinct sets of activities, the unit is to be included within the source which relies most heavily on its support." 45 Fed. Reg. 52695 (Aug. 7, 1980).

the first step in analyzing embedded facilities. Following this, activities not principally devoted to the primary activity are considered. At the Masada facility, there are a number of processes including hydrolysis and separation,[18] sulfuric acid reconcentration, and fermentation and distillation, which are principally devoted to chemical processing. Although these activities play a dual role of refuse processing (i.e., converting some of the waste to usable products), it is EPA's judgment that these activities primarily serve to produce marketable ethanol and other products – a chemical process plant. Likewise, there is a natural gas package boiler which exists primarily to supply energy needed to reconcentrate the acid for hydrolysis, and there are tanks for product storage. These activities should also be considered primarily as part of the embedded chemical plant. Emissions from these activities have been evaluated to determine whether they exceed the 100 tpy cutoff for a chemical process plant. EPA finds that Spectra has failed to demonstrate that NYSDEC was correct in finding that they do not.[19]

The remaining processes, including sorting and drying the incoming waste as well as gasification/combustion are, in EPA's judgment, primarily devoted to refuse processing. Indeed, in petitioner Spectra's own words, "the principal purpose of the supposed gasifier is to eliminate the residue from the Project's chemical processes to avoid the need for landfill disposal." Spectra petition, at 24. However, petitioners err in suggesting that because a chemical process has occurred before gasification in this instance, that the gasifier must be a "support facility" to a chemical plant. As noted above, the primary activity of the Masada facility is refuse processing, and the gasifier, by substantially reducing the volume of the lignin, is primarily performing a refuse processing function. Even if energy is recovered from gasification/combustion as a side benefit and used for ethanol production, and even if the presence of a waste stream and integrated disposal process makes ethanol production economical at this site, this does not change the determination that the primary activity is refuse processing.

On the question of "support facilities" raised by Spectra, EPA observes that the gasifier plays a dual role of waste elimination and steam generation. While both of these roles arguably "support" the chemical process plant, the question of support is not the relevant factor in deciding how to attribute the emissions of the gasifier. Questions of "support facilities" often arise in making major source

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[18] In response to the Spectra petitioners' comment about EPA Region 2's prior assessment that the hydrolysis step is part of the refuse processing function (which the December 6 letter relied upon in allocating gasifier emissions to refuse processing), EPA has reconsidered, and now believes that the hydrolysis step properly belongs with the chemical processing plant. It is EPA's judgment that the hydrolysis step is included principally to produce sugars for conversion to ethanol. While the hydrolysis step serves a limited waste reduction function, EPA finds it unlikely that the hydrolysis step would be present were it not for the production of ethanol. However, this determination does not impact the PSD determination because there are no emissions from the hydrolysis step.

[19] Emissions from the hydrolysis step, the acid concentration/recycling step, the fermentation/ distillation step, the package boiler, and the storage tanks are well below the major source cutoffs. The primary emissions, according to Masada's estimates, are less than 1 tpy of VOC from the tanks, and less than 9 tpy of NO_x from the package boiler.

determinations under the PSD program when questions arise as to whether facilities are part of the same industrial grouping. Where a facility conveys, stores, or otherwise assists in the production of the principal product at another source, it may, under some circumstances, be deemed a support facility and treated as part of the same source as the facility it supports. This policy is used, for example, in determining whether two adjacent facilities should be treated as one source for PSD applicability purposes. However, the support facility test is not relevant to the Masada facility because there is no question that the chemical processing activities and the waste reduction activities at Masada facility are a single source. The boundaries of the major source have never been at issue. The support facility test is not used to evaluate embedded sources. Because both the boundary of the source and the primary activity have already been established, the Spectra petitioners' view that the gasifier "supports" the chemical process is simply not relevant. The gasifier is most appropriately associated with the primary activity – refuse processing – not the embedded chemical plant.

Another possible candidate for an embedded source in a 100 tpy PSD category is a "fuel conversion plant." Spectra mentions this in footnote 14 of their petition, but presents no elaboration on this point and no evidence to support this claim. Based on our review, EPA policy has historically defined this category as "plants which accomplish a change in state for a given fossil fuel. The large majority of these plants are likely to accomplish these changes through coal gasification, coal liquefaction or oil shale processing."[20] In this case, where fossil fuels are not involved, and where the processing involves hydrolysis, a chemical process, it is EPA's judgment that the Masada facility is not a fuel conversion plant. In any event, for reasons described above, even if a portion of the facility were determined to be a nested source in a 100 tpy category, the gasifier emissions would be associated with the primary activity, not the nested source, and the remaining emissions would not exceed 100 tpy.[21]

Therefore, EPA finds that NYSDEC acted appropriately in determining that the Masada facility does not contain an embedded source subject to PSD, and that PSD does not apply to the facility in general.

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[20] See January 20, 1976 memo from D. Kent Berry, EPA Headquarters, to Asa Foster, EPA Region IV.

[21] Yet another possible candidate for an embedded source in a 100 tpy category is a municipal waste incinerator capable of charging more than 50 tons of refuse per day. CAA section 169(1). The gasifier, and possibly certain other associated activities, may comprise an embedded incinerator because they combust a substance, lignin, which has its origin in part from municipal waste. Petitioners did not raise this issue directly, but it arises indirectly in evaluating the assertion by Spectra that the facility should be subject to the New Source Performance Standard (NSPS) for municipal waste combustors. Unless otherwise specified, EPA generally interprets the source category definition here in a similar fashion to the NSPS definition for that source category. For reasons described below (in the NSPS section discussing the municipal waste combustor standard), EPA does not believe the gasifier, or any other part of the Masada facility, meets the definition of a MWC. Thus, EPA finds that there is no embedded municipal waste incinerator at the Masada facility for PSD applicability purposes.

c. Is the permit sufficient to assure that the emissions of the Masada facility will not exceed the applicable PSD major source cutoff for any pollutant?

The question of whether Masada's emissions will exceed applicable PSD cutoffs focuses on the "potential-to-emit" (PTE) of the facility. PTE is a source's maximum capacity (determined on an annual basis) to emit a pollutant under its physical and operational design. 40 CFR 52.21(b)(4). In determining maximum capacity to emit, a source may consider enforceable limits on its operation and emissions, such as those in a title V permit. There is a significant amount of background information in the administrative record for the NYSDEC permit addressing and estimating Masada's PTE, including the following:

(1) a preliminary information package summarizing the proposed project, sent to NSYDEC on September 24, 1998.

(2) Masada's emissions estimate document and application for a title V permit filed with NYSDEC on December 21, 1998.

(3) A revised emissions estimate document and revised title V application, submitted in July and August 1999 (NYSDEC deemed the application "complete" on August 25, 1999).

(4) Masada's response, submitted on November 2, 1999 to EPA Region 2's October 20, 1999 request for additional details about the facility.

(5) Additional permit language developed by Masada, EPA, and NYSDEC during March 2000 to limit the source's PTE.

(6) a NYSDEC document submitted in May 2000 which addressed various public comments raised during a public hearing and written comment period, including comments about Masada's emissions estimates.

The title V permit conditions at the Masada facility are designed to ensure that the PTE at the facility will be no more than 246 tpy of sulfur dioxide, below the major source cutoff of 250 tpy. They similarly are designed to ensure that the facility will have the potential to emit 99.5 tpy of nitrogen oxides, below the major source cutoff of 100 tpy.[22]

NYSDEC sent EPA a proposed title V permit based on these limits on May 4, 2000. On May 17, 2000, EPA indicated, in a letter from Steven Riva of EPA Region 2 to Michael Merriman of

[22] Notwithstanding the above determination that the Masada facility falls within a 250 tpy source category, the Clean Air Act and NYSDEC regulations (6 NYCRR 231) establish a 100 tpy major source cutoff for NO_x for attainment areas which fall within the Ozone Transport Region, as is the case here.

NYSDEC Region 3 that the proposed permit meets all applicable title V requirements. It stated that "this proposed title V permit contains substantive permit requirements for stack testing, monitoring, and recordkeeping, as well as the rolling cumulative total methodology that will limit the "potential-to-emit" of this proposed facility. This statement indicates that EPA and NYSDEC were in agreement that the proposed Facility's emissions would not exceed the PSD major source cutoffs for any pollutant.

The Spectra petitioners raise numerous concerns that address this determination. First, they allege that Masada has not provided sufficient process and engineering information to accurately determine the Project's PTE. Similarly, they allege that the emissions estimates that are provided are not thorough enough and not reliable, claiming numerous general and specific technical defects, and providing their own estimate of NOx emissions for the gasifier and package boiler. Part of their reliability argument is based on the fact that the project is still in the design phase, and that specific contracts and vendor guarantees are not locked in sufficiently well to establish the project's operational parameters, and that the design of the project has changed during the permit process. They also allege that Masada cannot correlate process feedstock to emissions output. Ms. Nebus and Mr. van Meurs raise similar concerns about the unknown technology that will be used at the Masada facility.

Because of the alleged uncertainties and technical defects, petitioners also assert that the PTE limits in the permit are not likely to be met. They express concern that the permit appears to rely on after-the-fact monitoring, rather than engineering practices, test data, or vendor guarantees, to assure that emissions stay below major source cutoffs. They feel that Masada's allegedly inaccurate estimates of emissions are incompatible with PTE limits so close to the major source size because of the "small margin of safety." They further assert that the use of PTE limits for plantwide emissions of sulfur dioxide and nitrogen oxides is itself unlawful because it is inappropriate to use a plant-wide applicability limit (PAL) for avoiding initial PSD review of entirely new sources and because it uses post-construction monitoring as the basis for a preconstruction determination that NSR does not apply.

Before addressing Spectra's claims, it is helpful to briefly describe the PTE limit itself. The PTE limit in the Masada permit is based on what the permit record refers to as a "rolling cumulative total" methodology. Historically, many PTE limits have relied on a short-term emissions limit (e.g., pounds per hour), coupled as necessary with an operational limit (e.g., a limit on hours of operation), which, taken together, limit annual emissions below major source levels. However, in the case of Masada, the PTE limit does not rely on the short-term limit to establish the source as a minor source.[23] Instead, the limit relies on continuous emission monitors (CEMs) to track the total daily emissions from the facility. The emissions must be recorded each day, and must also be added to the total from the previous 364 days to determine an annual emissions total each day (i.e., a rolling cumulative total). If, on any day, this total exceeds the major source size, the source would be subject to a potential enforcement action (including penalties) for being in violation of its title V permit for the entire year, and would need, among

[23] There are pounds/hour mass limits in the permit, as required by the New York State Implementation Plan (SIP), but these are not used for the purposes of establishing the PTE limit.

other things, to apply for a PSD permit as a major source. Therefore, like any source with a PTE limit, complying with the limit is designed to keep the Masada facility a minor source, and a violation that exceeds the major source thresholds would require the source to obtain a major NSR permit. This serves to constrain the source's operation on a daily basis.[24] If the source has no room to operate under the PTE limiting emissions cap, it must cease operation or face a violation and a requirement to apply for PSD permitting as a major source. Contrary to petitioners claims that the PTE limit will not keep the source below major levels, EPA finds that this rolling cumulative methodology is an effective means of limiting PTE. It simply achieves practical enforceability (*e.g*, the ability to establish compliance at any given time) by relying on direct real-time measurements and calculations necessary to determine mass emissions, rather than on a mass emissions rate coupled with a limit on hours of operation.

Regarding petitioner's concern that the PTE limit relies on after the fact monitoring, EPA notes that all PTE limits rely on after the fact monitoring of some kind. Indeed, the use of CEMs in the Masada permit is a more rigorous type of monitoring than for some other kinds of PTE limits. EPA acknowledges that the emission factors for the Masada process may involve certain elements of uncertainty. However EPA believes that this CEM-based approach adequately addresses this uncertainty by requiring thorough real-time monitoring of the emissions. In cases like Masada, where the process involves new technology and the facility is the first of its kind, it is unrealistic to expect precise emission factors prior to construction. A strength of this rolling cumulative approach is that it compensates for uncertain emission factors by linking the source's operational constraints to the actual measured emissions, not the emissions factor, which itself often contains inherent uncertainty when applied to an individual case. Similarly, in response to Spectra's concerns about the lack of vendor guarantees, EPA notes that a PTE limit need not always be based on vendor guarantees. While vendor guarantees can be useful in estimating emissions, particularly when control devices are utilized, a vendor guarantee is not a necessary prerequisite to issuing a permit limiting PTE.[25] Again, the rolling cumulative approach, by using real-time emissions data, compensates for uncertain emission factors, which still contain uncertainty even if guaranteed by a vendor.

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[24] This limit also has the effect of requiring the source to employ pollution controls to reduce emissions of NO_x and SO_2, and to ensure that these controls are functioning properly in order to preserve its ability to operate below the daily PTE limit. However, the permit also specifically requires the utilization of dry lime injection and a spray dryer absorber system for SO_2 control from the gasifier, selective non-catalytic reduction (SNCR) for NO_x controls from the gasifier, and a baghouse for particulate control from the gasifier. Low-NO_x burners are required for NO_x control from the package boiler. To ensure that these control devices are being used as required and are working properly, the permit requires that operating parameters will be incorporated after testing is done to establish them.

[25] Masada has indicated, in its November 2, 2000, submittal to EPA that it intends to obtain vendor guarantees, but says they will not enter into a formal contract with a vendor until final approvals for the project are obtained. In any event, it is the permit conditions which are binding on the source, and Masada must abide by these regardless of what arrangements it makes with its vendor.

Regarding the petitioners' numerous concerns about the accuracy and reliability of the emissions estimates used in developing the PTE limit, EPA finds that the estimates are credible for the purposes of establishing a PTE limit of the type used in this permit. As noted above, EPA acknowledges that the exact emission factors for the Masada process are somewhat uncertain because the facility is the first of its kind. Although the facility must make a credible effort to project what its emissions will be, it is simply not possible for the facility, particularly in this case, to compute precisely its emissions until the facility is operational. To the extent that Masada has underestimated emissions, the PTE limit serves to constrain facility operations to keep emissions below the major source cutoff.[26] In this way, the limit itself is not critically sensitive to the accuracy of the preconstruction projections of emissions. This approach is certainly not without some risk to Masada, who must stay within these emissions limits even if they have underestimated them. However, as the Court found in United States v. Louisiana-Pacific Corp., 682 F. Supp. 1141, 1166 (D. Colo. 1988),

> "...the regulatory framework at issue may be unusually difficult to comply with because it requires a source to guess what its emissions will be prior to construction and the commencement of operations. Nonetheless, there must be no question that the burden of guessing correctly remains with the source, and that a mistake in this process can indeed result in penalty. Otherwise, future sources that are unsure of whether they will qualify as a major source will have no incentive to apply for PSD permits, which, undisputably, is a burden. Rather, they will build first and wait for the issuance of an NOV [notice of violation] before initiating the permit application process."

Having said that, EPA nonetheless understands the Spectra petitioners' comment that unreliable estimates may result in a PTE limit that cannot be actually met by the source during its planned operations. Indeed EPA has historically commented adversely on or objected to permits that have limited PTE using unreasonable underestimates of emissions factors or constraints on operation which, in reality, would constrain the source's operation so greatly that it would not be viable. EPA finds that this is not the case at this source. NYSDEC acted properly when it determined that the PTE limit is achievable, based on the best information available. The Agency has reviewed the emissions estimates relied upon in evaluating the PTE limits for NOx and SO_2 and finds that they serve as a reasonable basis for determining that the PTE limits can be met by the source operating as planned. While there may be some uncertainty in the exact calculations, as is often the case with any preconstruction estimate, the provisions of the PTE limit, as noted above, compensate for this uncertainty by constraining the source's operations as necessary to account for any underestimate. Any marginal difference between the estimates and the real emissions would not impact the source's ability to actually operate as planned. Similarly, contrary to Spectra's assertion, Masada's uncertain emissions estimates do not necessarily require that the PTE limit be set at some level below the major source size in order

[26] On the other hand, it is also possible that Masada has overestimated emissions. To the extent that their emissions are actually less than they projected, the PTE limit affords the source greater flexibility to operate while still remaining a minor source.

to provide a margin of safety. The relevant uncertainty in a limit like this is not the uncertainty in the emissions estimates; it is the uncertainty in the emissions measurement system. EPA finds that the CEM system, operated properly as required by the permit, provides reliable data to assure that Masada's emissions stay below the major source size. In addition, conservative measures are included in the permit for treatment of missing CEM data, as well as limits on how much data can be missing.

Regarding the specific technical defects alleged by Spectra, EPA finds that none of them negate EPA's basic conclusion: that the emissions estimates are sufficiently representative of the source's operation and are therefore credible for establishing permit limits on PTE. The specific defects in the emissions estimate that are alleged by Spectra, taken together, do not, in EPA's judgment, rise to the level of undermining this basic finding. The points raised by Spectra range from alleged defects with no factual basis, to legitimate points that illustrate a point which EPA has already agreed -- that there is some degree of uncertainty in Masada's estimates. However, in EPA's view, no single alleged defect, or combination of alleged defects presented by Spectra, is enough to prove that Masada has so grossly underestimated its emissions that a PTE limit using the "rolling cumulative total" methodology should not be based on the estimates.

Spectra also claims that the PTE limit itself is unlawful because it is a plantwide emissions cap. Spectra claims that this PTE limit is a special type of limit, referred to as a Plantwide Applicability Limit (PAL), and goes on to argue that a PAL is only legal for an existing major source, not a proposed source. They misconstrue the nature of the PTE limits imposed by NYSDEC in Masada's permit. The PTE limit simply assures that the source's total emissions do not exceed major source cutoffs. It does not create a PAL, which is a term of art referring to a limit that allows modifications at an existing major source without major source preconstruction review.[27] The PTE limit for the Masada facility, while covering multiple units, clearly does not authorize future changes without review. Therefore, it is not a PAL and any claims about the legality of a PAL for this kind of source are irrelevant here. The PTE limit developed here is both appropriate and authorized by applicable regulations.

In summary, EPA finds unconvincing the petitioners' assertions that the PTE limit is improper, illegal, or cannot be met. EPA believes that the emissions estimate document, as supplemented with additional information requested by various agencies, is a credible effort to estimate emissions based on the best available information, and is a legally acceptable permit application on which a PSD applicability determination may be made. Furthermore, EPA believes that the PTE limits for SO_2 and NOx are enforceable, and compliance with these limits can easily be verified at any time with real-time CEM data. As such, the limits provide assurance that the facility, operating in compliance with the permit, will not emit these pollutants in major amounts. Therefore EPA concludes that the Masada facility, as permitted, will not be a major source, and not subject to PSD.

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[27] More details about the proposed regulations addressing the operation of PALs may be found in the 1996 New Source Review Reform proposal. 58 Fed. Reg. 38250 (July 23, 1996).

2. Applicability of Federal Emissions Standards

The Spectra petitioners assert that, due to the uncertainty in emissions estimates and the alleged problems with limits on PTE, it is "not possible to determine whether or not the project is subject to various potentially applicable requirements." Spectra provides a list of requirements, consisting of federal New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAPS), that it feels were not properly evaluated, including the following:[28]

- 40 CFR Part 60 (NSPS) Subpart Eb (Large Municipal Waste Combustors)
- 40 CFR Part 60 (NSPS) Subpart O (Sewage Sludge Incinerators)
- 40 CFR Part 60 (NSPS) Subpart VV (Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry)
- 40 CFR Part 63 (NESHAP) Subpart EEE (Hazardous Waste Combustors)
- 40 CFR Part 61 (NESHAP) Subpart E (National Emissions Standards for Mercury)

In the Appendix to their petition, the Spectra petitioners also list NSPS subparts RRR and NNN. Spectra also broadly argues that other standards not specifically identified may also have been left out of the permit. EPA addresses each of these allegations separately below, including the applicability of 40 CFR part 60, Subpart Db, the NSPS for Industrial-Commercial-Institutional Steam Generating Units, as it relates to comments raised by Spectra in its petition.

a. 40 CFR Part 60 (NSPS) Subpart Eb (Large Municipal Waste Combustors)

Masada's permit application and supporting materials assert that the gasifier combusts "lignin," which is the term they use to describe the general process residue that remains after the hydrolysis step. They distinguish lignin from municipal waste, and assert that the gasifier is not a municipal waste combustor subject to subpart Eb because it combusts lignin, not municipal solid waste (MSW). The draft permit did not incorporate subpart Eb requirements, and EPA in its December 6 letter affirmed that "NYSDEC has identified and applied the appropriate federal NSPS to this proposed facility."

Spectra argues that the lignin is simply "sugar-free MSW" because hydrolysis removes recoverable sugars from the municipal waste stream, but the remaining material is otherwise indistinguishable from MSW. They argue that simply referring to lignin as a by-product of chemical processing of MSW is not sufficient to allow lignin to avoid being classified as MSW. Spectra also

[28] Petitioners describe the list they submitted as "a starting point" but state that it is "not intended to be exhaustive." Without greater specificity, general claims about the inability to evaluate the applicability of potential requirements is not sufficiently detailed to maintain a title V count.

argues that the use of the term "gasifier/boiler" does not change the real purpose of the gasifier unit, which they describe as "heat transfer."[29]

Although petitioners do not refer to the definitions in the NSPS, these definitions are important in resolving their claims.[30] MSW means "household, commercial/retail, and/or institutional waste." The definition provides a specific exemption for "industrial process or manufacturing wastes," among others. This exemption is particularly important here because, as noted above, EPA has determined that part of the Masada facility is an embedded chemical process plant. The hydrolysis step is part of this chemical process plant, and is the step which results in the formation of lignin residue. It is EPA's judgment that the lignin residue is a process waste from the embedded chemical plant, and is therefore exempt from the definition of MSW. Although the input to the chemical process plant is itself a waste, the exemption in the NSPS definition is not restricted to wastes from processes using specific types of feedstocks. Any industrial process waste, unless specifically included in the definition, is exempt. Accordingly, the waste that results from the Masada process is exempt.

The definition of MSW does specifically include refuse derived fuel (RDF) within the meaning of "household, commercial/retail, and/or institutional waste." RDF means "a type of MSW produced by processing MSW through shredding and size classification." This aspect of the definition must also be addressed to see if it is at odds with the exemption noted above. EPA finds that the lignin is not RDF, and thus, there is no conflict with the exemption noted above. The types of material initially being collected by the Masada facility do fall within the definition of MSW, and the processing that occurs as an initial step does result in the production of RDF within the meaning of the NSPS. However, the Masada facility does not then combust the RDF. The RDF undergoes an acid hydrolysis step which significantly alters its chemical properties and creates what the parties in this case refer to as "lignin" or "lignin residue." Information provided by Masada in its November 2, 1999, response comparing the percentage (by dry weight) of various elements in MSW versus lignin residue indicates that acid hydrolysis processes like Masada's increase the sulfur content by 210 percent, the carbon content by 33 percent, and oxygen by 5 percent. Similarly there are significant decreases in hydrogen (37 percent), nitrogen (32 percent), and ash (43 percent).

These significant chemical changes, which result from the hydrolysis process, are well outside the shredding and size classification processes referenced in the RDF definition. Because the chemical separation (hydrolysis) of recoverable sugars from RDF, results in significant chemical changes to the original RDF, EPA finds that the lignin is not RDF under the NSPS. Because lignin is not RDF, and

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[29] Here, it is unclear whether Spectra believes that the purpose of the gasifier is to eliminate lignin or provide energy to the chemical process. However, regardless of Spectra's position, the relevant discussion for NSPS applicability is whether the gasifier is combusting MSW. The question of whether a combustion unit recovers energy through heat transfer is not relevant to whether the unit is covered by the NSPS for MWCs.

[30] The relevant definitions are found in 40 CFR 60.51b.

because industrial process waste is specifically exempted from the MSW definition, EPA finds that lignin does not fall within the definition of MSW.[31]

EPA does not further consider the question of whether the gasifier is a process which falls under the NSPS definition of a municipal waste combustor unit, because for reasons discussed above, the material charged to the gasifier (lignin residue) does not fall within the definition of MSW. Thus, EPA finds that NYSDEC acted properly in determining that the Masada facility is not subject to NSPS subpart Eb.

b. 40 CFR Part 60 (NSPS) Subpart O (Sewage Sludge Incinerators) and 40 CFR Part 61 (NESHAP) Subpart E (National Emissions Standards for Mercury)

The Spectra petitioners claim that Masada has "failed to expressly demonstrate that the proposed facility will not be subject to 40 CFR 60, Subpart O" and assert that it should apply unless Masada demonstrates that sewage sludge will not be incinerated (or incinerated in amounts below the NSPS cutoff of 1000 kg per day). They allege that Masada does not appear to know whether its sewage will be hydrolyzed or later combusted along with lignin. Petitioners likewise claim that Masada has failed to provide data on mercury in the incoming sewage sludge. They state that part 61 subpart E applies to any plant that dries or incinerates wastewater treatment plant sludge containing mercury.

Information from Masada indicates that, like the RDF discussed above, the sewage sludge used in the Masada process undergoes significant chemical transformation prior to gasification. According to its November 2, 1999, submittal to EPA, the sludge is blended and then hydrolyzed in sulfuric acid. Contrary to petitioner's claims, Masada has indicated in its November submittal that all of the sewage sludge, septage, and leachate undergoes this process. This process results in the formation of carbon dioxide and soluble compounds. The carbon dioxide is recovered, and the liquid containing the soluble compounds is used to facilitate hydrolysis. What remains is a dewatered material, which Masada refers to as "acidified biosolids." These biosolids are fed to the gasifier. As with the material that resulted from the hydrolysis of MSW, EPA concludes that this material, which results from the hydrolysis of blended sewage sludge, is significantly different from sewage sludge such that gasification/combustion of this material is not subject to the NSPS for sewage sludge incineration, nor is it subject to the NESHAP for mercury emissions from plants that incinerate sewage sludge.

c. 40 CFR Part 60 (NSPS) Subpart VV [Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry (SOCMI)]

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[31] In a footnote, the Spectra petitioners argue that Masada's lignin is hydrolyzed solid waste with no beneficial use (including as a fuel), in contrast to other types of lignin. The determination whether Masada's lignin is MSW under the NSPS has nothing to do with whether lignin has a beneficial use. Therefore, EPA is not considering this comment further in its evaluation of whether the NSPS applies.

The Spectra petitioners list subpart VV in its list of potentially applicable requirements, and argues that the standards of Subpart VV must be incorporated into any issued permit. Spectra does not allege any specific instance of the failure to properly apply subpart VV, and EPA notes that the issued permit does incorporate subpart VV standards. Therefore, EPA dismisses this claim as moot.

d. 40 CFR Part 63 (NESHAP) Subpart EEE (Hazardous Waste Combustors)

The Spectra petitioners assert that the facility is subject to the requirements applicable to sources burning hazardous waste in a combustor, 40 CFR part 63, subpart EEE. Specifically, they argue that the source has not demonstrated that the lignin or residual municipal solid waste that will be burned in the gasifier will not contain hazardous waste.

Spectra is correct that the NESHAP requirements apply to all hazardous waste combustors, defined in 40 CFR 63.1201 to include an incinerator that "burns hazardous waste at any time." However, Masada maintains that the source will not burn any hazardous waste and in fact is expressly prohibited from accepting any hazardous waste under its NY state solid waste permit. EPA has no information – nor has Spectra presented any – to suggest that the facility will accept any hazardous waste. Like all waste handlers, Masada will have to determine whether the material that it is handling is classified as a hazardous waste. More specifically, Masada will have to ensure that the waste they are processing is not hazardous at the time they accept the waste and after it has undergone the acid hydrolysis process and is placed into the combustion unit. This obligation, however, is independently applicable (subject to government oversight and potential enforcement action) and is not an applicable requirement that should be incorporated into the source's title V permit. Therefore, based on Masada's representation that the source will not burn any hazardous waste, I conclude that Spectra has not shown that the NESHAP requirements apply to this source.

e. 40 CFR Part 60 (NSPS) Subparts NNN (SOCMI Reactor Processes) and RRR (SOCMI Distillation Operations)

In the attachment to the Spectra petition, the Spectra petitioners assert that NSPS subparts for SOCMI Reactor Processes (subpart RRR) and SOCMI Distillation Operations (subpart NNN) should also apply to the Masada facility. They do not cite any more specific basis for this assertion. EPA has reviewed the applicability of these two standards, and has determined that neither of them applies to the Masada facility. EPA issued a determination on October 7, 1996, which clarified that subparts RRR and NNN do not apply to processes which produce ethanol through biological processes like Masada's process. The determination states that these two rules were developed for specific processes involving synthesis of organic chemicals using petroleum-based feedstocks and not biological fermentation processes.[32] As the October 1996 memorandum makes clear, because the Masada

[32] Memorandum regarding "Applicability Determination for Biomass Ethanol Production," dated October 7, 1996, from Reggie Cheatham, Chief, Chemical Industry Branch, EPA Office of Enforcement and

facility does not produce ethanol from a petroleum-based feedstock, it is not subject to NSPS subpart NNN nor is it subject to subpart RRR. Therefore EPA finds that the permit is not deficient with respect to these two standards.

f. 40 CFR Part 60 (NSPS) Subpart Db (Industrial-Commercial-Institutional Steam Generating Units)

EPA has examined the Spectra petitioner's broad claim that other standards not specifically identified may also have been left out of the permit. EPA found one instance of a requirement that was left out of the permit - NSPS subpart Db (Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units). This standard was properly applied to the package boiler, and appropriate limits were included in the permit. However, as discussed below, subpart Db also contains requirements that apply to the gasifier.

Subpart Db applies to any steam generating unit that commenced construction, modification, or reconstruction after June 19, 1984, and has a heat input capacity of greater than 100 million BTU/hour, regardless of fuel. Whereas subparts Eb and O did not apply because the fuel charged to the gasifier was not covered by the regulations, general subpart Db applicability does not depend on the type of fuel used. Clearly, the gasifier unit is used to generate steam and its capacity of 245 million BTU/hour is within the NSPS specified range.[33]

Whereas general applicability of Subpart Db does not depend on the fuel, Subpart Db imposes specific emission limits which are based on the type of fuel combusted. Standards are specified for combustion of coal, oil, natural gas, wood, and MSW. EPA finds that none of these standards, including the MSW standard, apply to the combustion of lignin. The MSW standard does not apply under subpart Db for the same reason that subpart Eb did not apply, as discussed above: the fuel combusted (lignin residue) is not MSW.[34] However, EPA notes that there are certain basic reporting and recordkeeping requirements in 40 CFR 60.49b, which apply regardless of the fuel combusted.[35]

Compliance Assistance to George Czerniak, Air Enforcement and Compliance Assurance Branch, EPA Office of Enforcement and Compliance Assistance. The determination was later amended to clarify that such biological processes are still subject to NSPS subpart VV for equipment leaks. See Memorandum dated September 8, 1998 from Reggie Cheatham, Chief, Chemical Industry Branch, EPA Office of Enforcement and Compliance Assistance to Air Branch Chiefs, EPA Regions 1-10. As noted above, subpart VV has been addressed in the Masada permit.

[33] The gasifier is also subject to NSPS subpart Dc when burning natural gas, as it does at startup. The requirements for subpart Dc are already in the issued permit, and are not at issue in any of the petitions.

[34] Although the definition of MSW used in Db differs slightly from the definitions used in Eb, it is EPA's judgment that neither covers lignin residue, for reasons discussed above..

[35] Specifically, EPA finds that the requirements of sections 60.49b(a), (d), and (o) apply.

The purpose of these requirements is to assure that facilities potentially regulated by subpart Db (some of which are capable of burning multiple fuel types) are properly subjected to the appropriate emissions standards when burning a given fuel. These reporting and recordkeeping requirements clearly apply even if the source primarily combusts a fuel that is not further regulated by subpart Db emissions standards, as is the case here. Therefore, EPA is granting the request to object to the permit with respect to this issue. Pursuant to Sections 505(b) and 505(e) of the Act, 42 U.S.C. §§ 7661d(b) and (e), and 40 CFR 70.7(g)(4) or (5) and 70.8(d), NYSDEC is required to modify the permit to incorporate the reporting and recordkeeping requirements of 40 CFR 60.49b.[36] Where possible, these requirements should be harmonized with reporting and recordkeeping requirements already contained in the permit.

g. Accidental Release Provisions (40 CFR Part 68)

In separate petitions, petitioners Daniel Nebus and Jeanette Nebus both raise concerns about the possible effects of an explosion at the Masada facility. While the petitioners raise several general questions about such effects, the relevant question for this title V petition is whether the facility has complied with the Clean Air Act requirements for accidental releases of "regulated substances," which are extremely hazardous substances listed under section 112(r)(3) of the Act. On this point, the petitioners assert that section 112(r) requirements are "missing from the plan." Mr. Nebus is particularly concerned about an explosion of ethanol, but also identifies several other substances stored in tanks at the Masada facility, including sulfuric acid, gasoline, fuel oil and ammonia.

The regulations implementing 112(r), codified at 40 CFR Part 68, apply to sources that have regulated substances present above certain thresholds. EPA has reviewed Masada's application and supporting information and has located no evidence – nor has Spectra pointed to any – that any regulated substance will be present at the Masada facility in quantities above the 112(r) thresholds. The only substance identified by Mr. Nebus that is listed in the part 68 regulations is ammonia. However, the regulation applies to ammonia in concentrations of 20 percent or greater. NYSDEC determined that part 68 did not apply because the ammonia present does not exceed the 20 percent concentration threshold.[37] Based on this information, EPA finds that Spectra has failed to show that the part 68 requirements apply to the Masada facility. Thus, the permit, as issued, is sufficient under 40 CFR 68.215.[38]

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[36] Under 40 CFR 70.7(d)(1)(iii), permit amendments that require more frequent reporting by the permittee are eligible for the administrative permit amendment process.

[37] EPA confirmed this via a telephone conversation on March 7, 2001 between Thomas Miller, NYSDEC Region 3, and Lauren Steele, EPA Region 2.

[38] Compliance with the requirements of part 68 does not, however, relieve Masada of its legal obligation to meet the general duty requirements of section 112(r)(1) of the Act to identify hazards that may result in an accidental release, to design and maintain a safe facility taking such steps as are necessary to prevent releases, and to minimize the consequences of an actual accidental release. As the Administrator

h. Additional Requirements

With respect to all other applicable requirements not specifically addressed elsewhere in this Order, none of the petitioners have presented specific information to identify any missing or improperly included requirements. In response to the Spectra petitioners' general claim that there are other potentially applicable requirements, but that there is not sufficient information to evaluate their applicability, EPA has examined the record, and has determined that sufficient information is available to conclude that, except as specifically noted above, the permit is adequate to assure compliance with all applicable requirements.[39]

C. Other Issues

1. Environmental Justice and Non-Discrimination under Title VI of the Civil Rights Act

Petitioners Deborah Glover and Jeannette Nebus allege that the permit should be denied because US EPA and NYSDEC have not complied with Executive Order 12898, entitled "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations." Petition of Deborah Glover, dated August 19, 2000, pp. 2 and 4. Ms. Glover notes that the City of Middletown has a large minority and low-income population and that US EPA and NYSDEC did not appropriately identify "the multiple and cumulative exposures" in this area. She also alleges that the many non-English speaking residents were precluded from meaningfully participating in the NYSDEC public process as the notices were not in Spanish nor were translators made available at the hearing. Ms. Nebus also argues that crucial public documents were not translated and that the local minority and low-income population has been "totally disregarded."

Executive Order 12898, signed on February 11, 1994, focuses federal attention on the environmental and human health conditions of minority and low-income populations with the goal of achieving environmental protection for all communities. The Order is intended to promote non-discrimination in federal programs substantially affecting human health and the environment, and to provide minority and low-income communities access to public information on, and an opportunity for

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stated in the Shintech Inc. Title V Order, Permit No. 2466-VO (Sept. 10, 1997), at 12, n.9, "section 112(r)(1) remains a self-implementing requirement of the Act, and EPA expects and requires all covered sources to comply with the general duty provisions of 112(r)(1)."

[39] Although not identified by the petitioners, this review also considered the recently-promulgated NSPS for Commercial and Industrial Solid Waste Incineration Units (40 CFR part 60, subpart CCCC). These standards do not apply to facilities that recover energy for industrial purposes. Masada recovers energy to produce steam, which is used elsewhere at the plant, and is thus not covered by this rule. I also note that EPA has listed "industrial boilers," "institutional/commercial boilers," and "process heaters" on the list of source categories for which hazardous air pollutant emission standards are being developed under section 112 of the Act. 66 Fed. Reg. 8223 (Jan. 30, 2001). However, these standards have not yet been proposed and clearly are not under consideration in this Order.

public participation in, matters relating to human health or the environment. It generally directs federal agencies to make environmental justice part of their mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority and low-income populations.

At issue here is whether EPA should object to the permit issued by NYSDEC because it did not implement the Order. However, the Order's provisions apply only to the actions of federal agencies. As noted in the Administrator's Order responding to the Shintech title V petition, Permit No. 2366-VO, 2467-VO, 2468-VO (Sept. 10, 1997), at p.8, n.5, "[w]hile Executive Order 12898 was intended for internal management of the executive branch and not to create legal rights, federal agencies are required to implement its provisions 'consistent with, and to the extent permitted by, existing law." Sections 6-608 and 6-609, 59 Fed. Reg. at 7629, 32-33 (Feb. 14, 1994). Thus, the Order does not apply to actions taken by New York State. The Masada facility received a combined permit incorporating the requirements of New York's title V program and its minor source construction program. New York's title V program received interim approval in 1996. 61 Fed. Reg. 57589 (Nov. 7, 1996); see also 61 Fed. Reg. 63928 (Dec. 2, 1996) (correction); 40 CFR Part 70, Appendix A). New York State therefore is responsible for issuing and administering Masada's permit under section 502 of the Act. Similarly, New York's minor source construction program, codified at 6 NYCRR 201, was approved by EPA in 1997 as part of the state's implementation plan. 62 Fed. Reg. 67006 (Dec. 23, 1997). As the U.S. Environmental Appeals Board recently stated, permits issued under a state's approved minor source construction program "are regarded as creatures of state law that can be challenged only under the state system of review." In re: Carlton, Inc. North Shore Power Plant, PSD Appeal No. 00-9 (Feb. 28, 2001), slip op. at 5.[40]

Consequently, Executive Order 12898 does not apply to the State's issuance of the permit at issue here. As explained above, to justify exercise of an objection by EPA to a title V permit pursuant to Section 505(b)(2) of the Act, 42 U.S.C. § 7661d(b)(2), the petitioner must demonstrate that the permit is not in compliance with the requirements of the Act. Since the Order by its terms does not extend to the State's issuance of permits, it is not an applicable requirement of the Act. Thus, the request to object on this ground is denied.

However, if NYSDEC is a recipient of EPA financial assistance, its programs and activities, including its issuance of the Masada permit, are subject to the requirements of Title VI of the Civil

[40] Pursuant to 40 CFR § 52.21(u), NYSDEC has been delegated authority to administer the federal PSD program. See 47 Fed. Reg. 31613 (July 21, 1982). However, New York's decision that the source does not require a PSD permit means that there is no federal PSD permit for this source. *See e.g.* In re: Carlton, Inc. North Shore Power Plant, PSD Appeal No. 00-9 (Feb. 28, 2001), slip op. at 5 (dismissing challenge to permit issued under Illinois' approved minor NSR program because "the Board's jurisdiction is limited to federal PSD permits that are *actually issued*; it does not extend to state decisions reflected in state-issued permits, even where those decisions lead to the conclusion not to require a PSD permit at all") (emphasis in original).

Rights Act of 1964, as amended, and EPA's implementing regulations, which prohibit discrimination on the basis of race, color, or national origin. 42 U.S.C. § 2000d et seq.; 40 C.F.R. Part 7. The petitioners may file a complaint under Title VI and EPA's Title VI regulations if they believe that the state discriminated against them in violation of those laws by issuing the permit to Masada. The complaint, however, must meet the jurisdictional criteria that are described in EPA's Title VI regulations in order for EPA to accept it for investigation.[41]

2. Environmental Impacts

Many petitioners, including Ms. Dellasandro, Mr. Feman, Ms. Glover, Ms. Lee, Mr. Sprague, Ms. Sprague, Mr. Weimer and Mr. Wodka, broadly criticized the location of the Masada facility, suggesting that, by locating within the city limits of Middletown, the source will be too close to children and other industrial facilities. Similarly, another widespread concern was that this facility will contaminate the community's air and water. This issue was raised by Mr. Centeno, Ms. Centeno, Ms. Dellasandro, Ms. Jacobs, Ms. Lee, Ms. Mongilia, Mr. Sprague, Ms. Sprague, and Mr. Wodka.

The Clean Air Act and NYSDEC's applicable implementing regulations require review of the types of concerns raised by these petitioners. While recognizing that new sources of air pollution will have effects on local ambient air quality, this review assures that such ambient impacts are within levels that provide adequate protection for public health. This process focuses primarily on the National Ambient Air Quality Standards (NAAQS). EPA sets these standards to protect the public health with an adequate margin of safety. See CAA §109(b). States are required to adopt plans, known as State Implementation Plans (SIPs) to attain and maintain these NAAQS for six key pollutants, known as criteria pollutants. As part of these plans, States are required to adopt rules to assure that new and modified sources do not interfere with attainment or maintenance of the NAAQS, and do not conflict with the SIP. See 40 CFR §51.160-165. NYSDEC has submitted, and EPA has approved, regulations that fulfill these requirements.[42]

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[41] Under Title VI, a recipient of federal financial assistance may not discriminate on the basis of race, color, or national origin. Pursuant to EPA's Title VI administrative regulations, EPA's Office of Civil Rights conducts a preliminary review of Title VI complaints for acceptance, rejection, or referral. 40 C.F.R. § 7.120(d)(1). A complaint should meet jurisdictional requirements as described in EPA's Title VI regulations. First, it must be in writing. Second, it must describe alleged discriminatory acts that may violate EPA's Title VI regulations. Title VI does not cover discrimination on the grounds of income or economic status. Third, it must be timely filed. Under EPA's Title VI regulations, a complaint must be filed within 180 calendar days of the alleged discriminatory act. 40 C.F.R. § 7.120(b)(2). Fourth, because EPA's Title VI regulations only apply to recipients of EPA financial assistance, it must identify an EPA recipient that allegedly committed a discriminatory act. 40 C.F.R. § 7.15.

[42] The relevant regulations are found primarily in 6 NYCCR parts 200 and 201. Additional guidance is available discussing ambient impact assessments in more detail. See NYSDEC's *Air Guide* serious of documents.

The primary requirement in the New York SIP for addressing minor sources states that, "[t]he commissioner will not issue a permit... unless he determines that... the operation of the source will not prevent the attainment or maintenance of any applicable ambient air quality standard." 6 NYCRR 201.4. None of the aforementioned petitioners raise any specific claims that, in approving construction of the Masada facility, NYSDEC failed to meet this requirement. Indeed the permitting record demonstrates that the NYSDEC commissioner did make the required determination. The NYSDEC determination was based on an air quality (*i.e.*, modeling) analysis designed to simulate the ambient impacts of the Masada facility at its planned location. The analysis was submitted by Masada, and was conducted pursuant to New York State guidelines. Under these guidelines, modeling must generally reflect worst case operating and meteorological conditions, and must consider the effects of other sources in the area. A report issued by NYSDEC concludes that:

> "The applicant's air quality analysis has met Department guidelines in assessment of criteria and non criteria pollutants in the facility vicinity. It can further be concluded that the facility should meet all criteria AAQS [Ambient Air Quality Standards]..."[43]

The findings statement included with Masada's final operating permit reiterates the results of this review. The model results themselves showed that the resulting ambient levels of pollution were well within acceptable levels and well below the NAAQS. Based on this modeling, NYSDEC determined that the Masada facility would not interfere with attainment or maintenance of the NAAQS, and issued the construction permit. In order to maintain a legitimate grounds for objection to the title V permit, the petitioners would have to raise specific allegations that this analysis, or the determination by NYSDEC, failed to comply with applicable regulations. In the absence of such allegations, and based on the actions by NYSDEC described above, EPA finds that the aforementioned petitioners' have not demonstrated that the State has failed to make the required determination, and thus I deny the petitions on this basis.

I also note that NYSDEC conducted a similar review pursuant to its State air toxics regulations and policies. While these regulations are not considered applicable requirements for purposes of title V of the Act, NYSDEC further determined that the impacts of toxic pollutants were also all well below the maximum levels defined in the State guidelines.[44]

Regarding concerns about water quality raised by some of the aforementioned petitioners, no issues were identified that point to the failure of the Masada permit to incorporate all applicable

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[43] Letter and Review from Alan Elkerton, NYSDEC Division of Air Resources, to Tom Miller, NYSDEC Region 3, April 9, 1999.

[44] Id. As distinct from criteria pollutants, State programs to review ambient impacts of other pollutants, such as the NYSDEC regulations establishing guideline concentrations for a number of toxic pollutants, are not required under the Act, and are not applicable requirements for title V operating permits. States may elect to include these requirements in a "State-only" portion of a title V permit.

requirements under the Clean Air Act. As such, the EPA dismisses these claims. The petitioners concerns may be addressed by other environmental laws, but compliance with those laws is not a proper objection issue under title V of the Clean Air Act, and is not addressed further in this Order.

3. Additional Issues

The Spectra petitioners also incorporate into their petition, by reference only, "each and every comment contained in the 2000 Supplemental Comments as a basis for objecting to the permit as if they were fully reprinted herein." Further, they argue that each issue in their original 1999 comments is also incorporated into their petition. Part of the basis for such a claim is that the issues raised have never been substantively addressed by NYSDEC. EPA disagrees with this claim, as noted above. In addition, it is inappropriate for a petitioner to simply incorporate their prior comments into their title V petition. Under section 505(b)(2), it is the responsibility of a petitioner to demonstrate to the Agency that the terms of a permit are not in compliance with the requirements of the Act. As the Administrator stated in the Shintech Inc. title V Order, Permit No. 2366-VO, 2467-VO, 2468-VO (Sept. 10, 1997), at 20, "EPA has no generalized duty to review the permit and to determine and rectify all inaccuracies and inconsistencies." Likewise, I find that wholesale incorporation of an entire set of prior comments does not provide a specific enough basis for objection to meet the petitioner's burden. For these reasons, I reject the Spectra petition with respect to any issues included in the referenced sets of comments but not specifically raised in the petition.

Finally, several of the petitioners raise additional issues which are not germane to a petition under title V because they do not pertain to applicable requirements or permitting requirements of 40 CFR part 70. For example,

- Spectra notes that Masada withdrew plans to construct a similar facility in Birmingham, Alabama and charges that various elected officials contacted EPA and NYSDEC to influence approvals for the Masada project.
- Ms. Glover alleges that NYSDEC and Masada had a "callous indifference to the concerns of the citizens of Middletown." She also mentions EPA's NO_x SIP call and NYSDEC's compliance with other environmental statutes.
- Ms. Nebus also argues that NYSDEC has been "capricious and arbitrary in their dealings" with her. She further expresses concern about the exhaust from diesel trucks associated with the facility and suggests that NYSDEC should test the nearby Monhagan Brook for contamination.

None of these claims, even if true, could form the basis of an EPA title V objection since they do not allege that Masada's permit is not in compliance with the CAA requirements applicable to this source. As such, these issues are not germane, and EPA does not address them further in this Order.

III. CONCLUSION

For the reasons set forth above and pursuant to sections 505(b) and 505(e) of the Act, 42 U.S.C. §§ 7661d(b) and (e), and 40 CFR 70.7(g)(4) or (5) and 70.8(d), I deny the petitions submitted by the following persons: Lois Broughton, Wanda Brown, Louisa and George Centeno with Leslie Mongilia, Maria Dellasandro, R. Dimieri, Lori Dimieri, Dawn Evesfield, Marvin Feman, Deborah Glover, Anne Jacobs, Barbara Javalli-Lesiuk, Marie Karr, June Lee, Ruth MacDonald, Bernice Mapes, Donald Maurizzio, Alice Meola, Daniel Nebus, Mr. and Mrs. Hillary Ragin, M. Schoonover, Mildred Sherlock, LaVinnie Sprague, Matthew Sprague, Hubert van Meurs, Alfred and Catherine Viggiani, Paul Weimer and Leonard Wodka. I grant the petitions from Spectra and Jeanette Nebus to object to the NYSDEC permit on the basis of inadequate public notice with respect to the PTE limits, and Spectra's petition with respect to the applicability of the NSPS Db recordkeeping requirements. NYSDEC shall take appropriate steps, as discussed above, to resolve these objections. I deny the remainder of Spectra's and Ms. Nebus' petitions.

May 2, 2001
Dated:

/s/
Christine Todd Whitman,
Administrator