BEFORE THE ADMINISTRATOR
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

IN THE MATTER OF ORANGE RECYCLING AND ETHANOL PRODUCTION FACILITY, PENCOR-MASADA OXYNOL, LLC Permit ID: 3-3309-00101/00003 Facility NYSDEC ID: 3330900101 Issued by the New York State Department of Environmental Conservation	)	ORDER RESPONDING TO PETITIONERS' REQUEST THAT THE ADMINISTRATOR OBJECT TO ISSUANCE OF A STATE OPERATING PERMIT Petition No.: II-2001-05

ORDER DENYING PETITIONS FOR OBJECTION TO PERMIT

The New York State Department of Environmental Conservation, Region 3 (NYSDEC) issued a modified state operating permit to Pencor-Masada Oxynol, LLC (Masada[1]) on October 1, 2001, incorporating changes made pursuant to the Order of the Environmental Protection Agency (EPA) Administrator, dated May 2, 2001 (May 2001 Order). *See* 66 FR 30904, June 8, 2001.[2] This Order was in response to petitions received regarding the initial permit issued to authorize construction and operation of the Orange Recycling and Ethanol Production Facility in Middletown, NY. The modified 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.

In October and November 2001, the EPA received four petitions from 14 different petitioners, requesting that EPA object to the issuance of the modified Masada permit. Specifically, we received separate petitions from Jeanette Nebus, Robert C. LaFleur, president of Spectra Environmental Group, Inc. (Spectra), and Deborah Glover. We also received a fourth petition with 11 signatories: Talkini Alves, Vidal Milland, Kristine Hannon, Bridget Coppola, Nicole Young, Kathleen House, Campbell House, Susan Cohen, Debbie Carlisle, Roberta Constantino, and Elizabeth Collard.

Under section 505(b)(1) of the Act, EPA may object to the issuance of a permit on its

[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.

[2] The full text of the Administrator's May 2001 Order is available at http://www.epa.gov/region07/programs/artd/air/title5/petitiondb/petitions/masada_decision2000.pdf.

own initiative 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." *See also* 40 CFR 70.8(c). 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).

In the May 2001 Order, I granted petitions from Spectra Environmental Group Inc. and Ms. Jeanette Nebus to object to the NYSDEC permit on two grounds: inadequate public notice with respect to the limits on the facility's potential to emit (PTE) - specifically permit conditions 36 and 41 - and the applicability of the record keeping requirements of the Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units (NSPS) Subpart Db. The remaining petitions were denied. Pursuant to the Order, NYSDEC reopened the comment period and, ultimately, issued the revised permit on October 1, 2001. NYSDEC's new permitting action with respect to these narrow issues, namely its consideration of the PTE limits and NSPS Db record keeping requirements, is an appropriate subject matter for petitions under section 505(b)(2) of the Act.

The new petitions with respect to this facility raise a number of claims. Some relate to the October 2001 NYSDEC permit decision and some repeat issues previously addressed in the May 2001 Order. With respect to the NYSDEC revised permit decision, the petitioners allege that (1) the permit fails to include the physical or operational limits necessary to properly limit the source's PTE, (2) the permit limits actual emissions instead of potential emissions, (3) the annual emissions limits are set too close to major thresholds, (4) the hourly emissions limits have too long an averaging period, (5) the consequences of deviations from or exceedances of permit limits are not severe enough, and (6) the inspection and maintenance measures for data from continuous emissions monitors (CEM) should be clarified. Additionally, the petitioners raise two issues with respect to the applicable requirements of the NSPS, suggesting that the requirement to calculate the annual capacity factor needs clarification, and the criteria and implications of the use of an emerging technology should be specified. The petitioners request that EPA object to the issuance of the Masada permit pursuant to section 505(b)(2) of the Act and 40 CFR § 70.8(d) for these reasons.

The petitioners also reassert several of the claims from previous petitions, including the applicability of the major New Source Review and Prevention of Significant Deterioration programs, and the emissions of toxic air pollutants. These issues, which were addressed in great detail in the May 2001 Order, were not part of NYSDEC's October 2001 permit decision and are thus beyond the scope of this title V petition process. Accordingly, EPA denies all such claims that do not relate to the defined scope of the NYSDEC October 2001 permitting decision.

Finally, one of the petitions raises concerns about environmental justice. While the May 2001 Order addressed issues regarding NYSDEC's compliance with Executive Order 12898, the new petition questions EPA's compliance with the Executive Order. This issue will be discussed below in section II.C.

In sum, EPA has performed an independent review of the petitioners' claims. Based on

review of all the information before me, including the initial Masada permit of July 25, 2000, the modified permit of October 1, 2001, my previous Order of May 2, 2001, and the information provided by the petitioners in the petitions, I hereby deny the petitions for the reasons set forth in this Order.

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. EPA subsequently granted full approval to New York's program effective November 30, 2001. 66 Fed. Reg. 63180 (Dec. 5, 2001).

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, record keeping, 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.

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)(1) 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. Petitions must, in general, be based on objections to the permit that were raised with reasonable specificity during the public comment period. 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. 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, the permitting authority or EPA 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

The Administrator's Order of May 2, 2001, directed the NYSDEC to reopen the Masada permit to allow additional public comments on the methodology for limiting the potential emissions of the facility. Also, EPA directed NYSDEC to incorporate the portions of the NSPS Subpart Db applicable to the gasifier. The NYSDEC took the necessary steps to remedy these deficiencies. The petitioners have now requested that EPA object to Masada's modified permit based on a variety of alleged flaws in the PTE-limiting strategy and the supporting permit terms. Petitioners also have concerns with the NSPS requirements and EPA's compliance with the Executive Order 12898 on environmental justice.

A. Adequacy of Permit Provisions Limiting Masada's Potential To Emit (PTE)

1. Need for Physical or Operational PTE Limits

Several of the petitioners argue that the PTE limits in Masada's permit are inadequate because they are not based on physical or operational limitations. Petitioners Nebus and Glover, quoting from EPA's June 13, 1989 *Guidance on Limiting Potential to Emit in New Source Permitting*,[3] (hereinafter "1989 Guidance"), argue that "short term limits are the most useful and reasonable way to restrict and thereby verify limits on potential to emit." Petitioner Nebus demands that the permit contain operational constraints, including "hours of operations, controls, amounts of materials and fuels, input and throughput, limits on what the source does and how much capacity they have." Petitioners Alves et al. also argue in favor of strictly enforced hourly limits and limitations on hours of operation and production rates. Petitioner LaFleur claims that the NYSDEC and EPA have employed unenforceable blanket emissions limitations in the permit, and that Masada is unable to correlate process feedstock and ethanol production with emissions. We are addressing these claims under a common heading, since all of these claims relate to the need for physical or operational restrictions on the facility's PTE.

The Clean Air Act does not specifically address how to calculate a facility's PTE. EPA's regulatory definition of "potential to emit"[4] refers generally to physical and operational

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[3] This memorandum was transmitted from Terrell E. Hunt, Associate Enforcement Counsel, Air Enforcement Division, Office of Enforcement and Compliance Monitoring and John S. Seitz, Director, Stationary Source Compliance Division, Office of Air Quality Panning and Standards, to EPA Regional air directors, EPA Regional Counsels, other EPA headquarters offices and the Chief of the Environmental Enforcement Section at the Department of Justice.

[4] EPA regulations define "potential to emit" as "the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as

(continued...)

constraints, but leaves room for interpretation about what forms of practically enforceable limitations may be appropriate in particular circumstances. Thus, in addition to the 1989 Guidance cited by the petitioners, which discusses strategies for limiting potential emissions from newly constructed facilities, EPA has issued several subsequent guidance documents on these issues.[5] These documents illustrate that the Clean Air Act and the implementing regulations allow for a flexible, case-by-case evaluation of appropriate methods for ensuring practical enforceability of PTE limits. The key consideration throughout these policy and guidance documents is whether the terms and conditions that limit the potential emissions are, in fact, enforceable as a practical matter.

Masada's permit relies on a 365-day "rolling cumulative total" emissions limit for nitrogen oxides (NO_X) and sulfur dioxide (SO_2), with emissions recorded each day and added to the total from the previous 364 days to determine an annual emissions total each day. To support this approach, the permit requires extensive data collection procedures and quality assurance measures, including stack testing and direct real-time continuous emissions measurements (CEM) to track the total daily emissions from the facility. As discussed below, EPA finds that this rolling cumulative methodology is a practically enforceable and effective means of limiting PTE in this case.

The 1989 Guidance cited by some of the petitioners specifically contemplates PTE limits based solely on an emissions limit in particular circumstances. For example, the 1989 Guidance recognizes that emissions limits, coupled with the requirement to install, maintain and operate a CEM system to determine compliance, may be appropriate where setting operating parameters for control equipment is infeasible. 1989 Guidance, at 8. Likewise, the 1989 Guidance notes that "emissions limits are more easily enforceable than operating or production limits" in volatile organic compound surface coating operations where the emissions limit is combined with a requirement to calculate daily emissions. *Id.*

Petitioners have not demonstrated that NYSDEC erred in determining that it was appropriate to employ such emissions limits, coupled with a CEMs system, in this permit.

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[4](...continued)
part of its design if the limitation or the effect it would have on emissions is federally enforceable. Secondary emissions do not count in determining the potential to emit of a stationary source." 40 CFR 52.21(b)(4).

[5] See, e.g., Memorandum entitled "Guidance an[d] Enforceability Requirements for Limiting Potential to Emit through SIP and §112 Rules and General Permits," from Kathie A. Stein, Director, Air Enforcement Division, Office of Enforcement and Compliance Assurance, to Regional Air Directors, dated January 25, 1995; Memorandum entitled "3M Tape Manufacturing Division Plant, St. Paul, Minnesota," from John B. Rasnic, Director, Stationary Source Compliance Division, EPA's Office of Air Quality Planning and Standards, to David Kee, Director, EPA Region V Air and Radiation Division, dated July 14, 1992; Memorandum entitled "Policy Determination on Limiting Potential to Emit for Koch Refining Company Clean Fuels Project,"from John Rasnic to David Kee, dated March 13, 1992; Memorandum entitled "Use of Long Term Rolling Averages to Limit Potential to Emit," from John Rasnic to David Kee, dated February 24, 1992. These memos are available on EPA's Title V Policy and Guidance Database, at http://www.epa.gov/region07/programs/artd/air/policy/search.htm.

Masada's operations will have significant fluctuations due the variability of the processed waste, making an operating parameter-based PTE limit less appropriate. The emissions-based PTE limit discussed below recognizes this fact, and provides Masada with operational flexibility accordingly. Moreover, Masada will be measuring its emissions on a real-time basis using CEMs, thus obviating the need to limit and monitor operating parameters as a surrogate for emissions.[6] Thus, the petitioners have not demonstrated that it was inappropriate for NYSDEC to use the PTE limit to restrict Masada's emissions directly, rather than its operations or production.

Although it is generally preferred that PTE limitations be as short-term as possible (e.g., not to exceed one month), EPA guidance also allows permits to be written with longer term limits if they are rolled (meaning recalculated periodically with updated data) on a frequent basis (e.g., daily or monthly). The 1989 Guidance recognizes that such longer rolling limits may be appropriate for sources with "substantial and unpredictable annual variation in production." 1989 Guidance, at 9. Similarly, the Agency explained in a 1995 guidance document that "EPA policy allows for rolling limits not to exceed 12 months or 365 days where the permitting authority finds that the limit provides an assurance that compliance can be readily determined and verified."[7] Annual limits rolled on a daily basis are entirely appropriate where, as here, the operations of the facility will fluctuate throughout the year and CEMs are used to ensure practical enforceability. Thus, contrary to petitioners' assertions, shorter term limits are not always essential to a practically enforceable limit.

Thus, EPA finds that the permit is consistent with the Clean Air Act, EPA's implementing regulations, and Agency policy and guidance. EPA denies the petitions with regard to this issue.

2. Actual emissions vs. PTE

Petitioners Nebus and Glover assert that the permit constrains the actual emissions, rather than potential emissions, of the facility. Ms. Nebus claims that "the issued Masada permit limits actual emissions, but not PTE." She then elaborates that the permit only warns the facility when it is getting close to the limit, and does not effectively limit the facility because there are no

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[6] This is consistent with prior EPA practice in appropriate circumstances. See e.g., Memorandum entitled "3M Tape Manufacturing Division Plant, St. Paul, Minnesota," from John Rasnic to David Kee, dated July 14, 1992 ("a federally enforceable emissions limit may be used ... to limit the potential to emit as long as a continuous emissions monitor (CEM) or an acceptable alternative is used."); and Memorandum entitled "Policy Determination on Limiting Potential to Emit for Koch Refining Company Clean Fuels Project," from John Rasnic to David Kee, dated March 13, 1992 ("Use of an emission limit to restrict potential to emit ... is acceptable provided that emissions can be and are required to be readily and periodically determined or calculated.")

[7] Memorandum entitled "Guidance and Enforceability Requirements for Limiting Potential to Emit through SIP and §112 Rules and General Permits," from Kathie A. Stein, Director, Air Enforcement Division, Office of Enforcement and Compliance Assurance, to Regional Air Directors, dated January 25, 1995.

operational constraints. Petitioner Glover states that, "this permit disregards PTE and is based on actual emissions."

In order to be considered practically enforceable, an emissions limit must be accompanied by terms and conditions that require a source to effectively constrain its operations so as to not exceed the relevant emissions threshold. These terms and conditions must also be sufficient to enable regulators and citizens to determine whether the limit has been exceeded and, if so, to take appropriate enforcement action. In other words, a source may not lawfully exceed that limit. Therefore, under EPA's regulatory framework, the source does not have the "potential to emit" above that limit. This is true whether the limit restricts emissions directly or restricts specific operating parameters, as petitioners would prefer. As discussed above in #1, EPA believes that Masada's permit limits are practically enforceable. Therefore, they effectively limit Masada's potential emissions and EPA denies the petitions on this basis.

3. Annual limits too close to major thresholds

Petitioners LaFleur, Nebus and Alves et al. each remark on either the unreliability of the emissions estimates, or the level at which the annual limits were set for NO_X and SO_2. Petitioner LaFleur states that, "Masada has not provided adequate data nor substantiation of its emissions estimates." Petitioners Alves et al. claim that "the emissions calculations are simply not reliable or realistic." Petitioner Nebus states that the SO_2 annual emissions should be limited to less than 246 tpy and NO_X should be limited to less than 99.5 tpy[8]. EPA finds that these individual claims relate to each other, and is reading them to mean that petitioners request the annual limits to be lowered to provide a greater margin of compliance, due to the uncertainty in the facility's emissions estimates.

This issue was addressed in great detail in the May 2001 Order, and EPA continues to disagree that there is a need for a greater margin of compliance between Masada's PTE limits and the applicable major source thresholds. Although EPA agrees that there is some uncertainty in Masada's estimates, it is unrealistic to expect precise emission factors prior to construction in cases where the process involves new technology and the facility is the first of its kind. The fact that there is some uncertainty regarding the estimates, however, is yet another reason to require careful monitoring of actual emissions.

I already concluded in the May 2001 Order that, based on the Agency's review of the best information currently available, the source's emissions estimates are sufficiently credible to serve as a reasonable basis for determining that the PTE limits can be met by the source operating as planned. May 2001 Order, at 24. I also determined that the CEM system, operated properly as required by the permit, provides reliable data to assure that Masada's emissions stay

[8] Notwithstanding the 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 that fall within the Ozone Transport Region, as is the case here.

below the major source thresholds. In addition, stringent measures are included in the permit for conservative treatment of missing CEM data, as well as limits on how much data can be missing.

As noted in the previous Order, a strength of the rolling cumulative total approach is that it accounts for the variability in the data. It does so by limiting 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. May 2001 Order, at 23. Indeed, Masada bears the risk if it has underestimated emissions in that the source would be required under the permit to constrain facility operations to keep emissions below the permit limits. Therefore, there is no need for additional margins of compliance, and EPA denies the petitions on this issue.

4. Averaging of hourly emissions limits

Petitioner LaFleur claims that, "although pounds-per-hour mass limits are expressed in the permit, those limits are meaningless because compliance with those short term limits is to be demonstrated on a 30-day rolling average." Many traditional PTE limits are constructed using limitations on hourly emissions rates along with restrictions on hours of operation. Since this comment could be read broadly as relating to NYSDEC's October permitting decision regarding PTE, I am exercising my discretion to consider this comment as a valid petition issue.

Petitioner LaFleur is correct that Masada's PTE limits generally do not rely on the hourly mass limits to establish the facility as a minor source. Instead, as discussed above, they rely on a 365-day rolling total emissions limit, supported with stack testing and direct, real time data from CEM. The hourly limits are not directly related to the annual emissions limits specified in conditions 36 and 41.

EPA disagrees with petitioner that the hourly limits on mass emissions of NO_X and SO_2 (see condition 81) are meaningless. They serve two important purposes. First, they provide a maximum operating level for the facility, which is used in calculating a fallback PTE if CEM data availability falls below 75% (see permit conditions 36.2 (I)(3) and 41.2 (I)(4)). Second, Masada is required to control its SO_2 emissions by 97% under 6 NYCRR 212.9(b), and the hourly limit of 61.2 lb/hr represents the level to which Masada must control. Therefore, the hourly limit serves to help make the 97% control limit practically enforceable. For the purposes described here, it is reasonable for the permit to allow the collected CEM data to be compiled and averaged every 24 hours, incorporating data from the most recent 30 days. EPA denies Mr. LaFleur's petition on this issue.

5. Consequences

Petitioners Nebus and Glover both claim that there should be severe consequences to Masada for exceeding any emissions limit. They each have similar statements in their respective petitions, claiming that in all instances of excess emissions, the facility must immediately submit a major source permit application. Ms. Nebus goes a step further and contends that, in the case of an exceedance, the facility should be shut down until all requirements are met.

EPA believes the permit has sufficiently strong language about some of the possible consequences of exceeding a PTE limit or any permit violation. However, the permit does not, nor should it, list comprehensively all the potential enforcement ramifications of noncompliance. The permit describes varying degrees of consequences, depending on the nature of the violation. Conditions 36.2 (I)(4) and 41.2 (I)(5) specify that if the CEM data availability drops below 95%, a record keeping violation will be cited, after the first year of operation. Conditions 36.2 (I)(3) and 41.2 (I)(4) specify that if the CEM data availability drops below 75%, then a new methodology for calculating PTE is to be used. The maximum hourly emission rate is to be multiplied by 8,760 hours (365 days x 24 hours), resulting in PTE above major source thresholds, and Masada must promptly submit the appropriate permit applications for review under major NSR and/or PSD. Conditions 36.2 (I)(1) and (III)(1) and 41.2 (I)(1) & (III)(1) specify that any exceedance of the annual limit (99.5 tpy NO_X or 246 tpy SO_2) shall constitute 365 days of violation. Conditions 36.2 (I)(2) and 41.2 (I)(2) specify that if the facility exceeds 100 tpy NO_X or 250 tpy SO_2, then the facility shall be subject to major NSR and/or PSD as though construction had not yet commenced, and Masada must promptly submit the appropriate permit applications. It is important to note that if the facility exceeds these limits, not only does it need to get a major source permit, but it may be considered to have been in violation of PSD and/or NSR from the time it was initially constructed. Finally, condition 41.2 (I)(3), relating to SO_2, specifies that if Masada applies to relax any permit restrictions and thus becomes a major source, then the facility must undergo PSD review as though construction had not yet commenced.

Petitioner Nebus also claims that Masada should shut down in the case of an exceedance. EPA disagrees that the permit needs to be revised to include such a statement. The CAA provides sufficient enforcement authority for EPA to enforce this permit and all other CAA requirements. *See e.g.* § CAA 113, 303, 502(b)(5)(E). States have similar authority. EPA and the state must retain discretion to determine what remedy is appropriate in any given situation. There may be occasions where NYSDEC or EPA may see a need to shut down a facility. As expressed in Condition 1 of the Facility Level section of the permit, NYSDEC has authority under 6 NYCRR 200.5 to seal access to any air contamination source.[9] EPA has authority to address similar compliance problems, including seeking an immediate injunction to cease operation. The authority to enforce this permit can not be expanded by this permit and it is not appropriate to attempt to specify or limit the response that will be taken in the case of a violation.

If EPA or NYSDEC requires Masada to submit a permit application because of a permit violation, a prompt submittal is sufficient, and there is no need to require an immediate application. NYSDEC has the authority to determine if an application is delayed beyond reason,

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[9] The commissioner may seal an air contamination source to prevent its operation if compliance with 6 NYCRR Chapter III is not met within the time provided by an order of the commissioner issued in the case of the violation. Sealing means labeling or tagging a source to notify any person that operation of the source is prohibited, and also includes physical means of preventing the operation of an air contamination source without resulting in destruction of any equipment associated with such source, and includes, but is not limited to, bolting, chaining or wiring shut control panels, apertures or conduits associated with such source. (6 NYCRR 200.5, page 5 of permit, Item 1.1(a))

and take appropriate action. In conclusion, EPA believes the permit is sufficient, and denies the petitions on this issue.

6. CEM Inspection and Maintenance

Petitioner Nebus expresses concerns that there are not enough backup measures or safeguards for times when the CEM are not operational. She also believes the permit should specify the schedule for inspecting and performing maintenance on the CEM.

EPA believes the permit is clear about what Masada should do in case of problems with the CEM. Conditions 36.2 (I)(3-4), (II)(5) and 41.2 (I)(4-5), 41.2 (II)(5) specify measures to take when CEM are not available. Calculations are to be made, substituting data according to 40 CFR §§ 75.31 or 75.33 (c)(1) (if availability above 95%) or permit-specific procedures (if availability below 95%). If CEM data availability ever falls below 75%, the facility is to use its maximum permitted hourly rate multiplied by 8,760 hours. Regarding maintenance of the systems, the terms at conditions 36.2 (II)(2-4) and 41.2 (II)(2-4) say to install, maintain and operate NO_X and SO_2 CEM systems. Although these terms are not specific in how frequently to perform maintenance on the CEM, the permit specifies elsewhere that Masada will comply with 40 CFR Part 75 regarding the maintenance of CEM systems. Also, condition 76.2 (10) specifies that daily CEM drift tests and quarterly accuracy assessments must be performed on CEM measuring NO_X from the package boiler (40 CFR 60 Appx. F, Procedure 1).

In conclusion, it should be noted that the burden is on the petitioners to demonstrate how the safeguards and related provisions in the permit are not adequate. The petitioners in this case have not met this burden to justify an objection to the permit. Finally, EPA believes that the permit is structured to provide a powerful incentive for Masada to maintain its CEM in optimum operating condition, because of the consequences associated with loss of data. EPA believes the permit is satisfactory in this regard, and denies the petitions on this issue.

B. New Source Performance Standards

1. Annual Capacity Factor

Petitioners Nebus and Glover request clarification of what Masada's obligations are regarding some of the terms in the permit addressing Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units. The notification requirement at 40 CFR 60.49b (a) in Subpart Db, listed in permit condition 1-4, specifies four items that must be reported at the time the facility begins to operate. Specifically, sources are required to report (1) the design heat input capacity and identification of the fuels to be combusted, (2) a copy of any federally enforceable requirement that limits the annual capacity factor, (3) a calculation of the annual capacity factor at which the facility expects to operate, and (4) notification of any emerging technology that will be used for controlling emissions of sulfur dioxide. These factors are to be reported for each fuel that the facility expects to fire. In addition, permit condition 1-5 cites the record keeping requirement at 40 CFR § 60.49b(d), which requires calculation of the annual capacity factor using a rolling 12-month average. Petitioners Nebus and Glover believe

the permit should specify what fuels Masada uses, which fuel is most polluting, and how emissions are controlled.

Both the 124 mmBtu/hr natural gas-fired package boiler and the 245 mmBtu/hr fluidized bed gasifier are subject to 40 CFR 60.49b (d). Permit condition 75 incorporates this requirement for the package boiler, and is identical to permit condition 1-5 relating to the gasifier. In accordance with EPA's May 2001 Order, NYSDEC's October 2001 permitting decision reopened the permit to apply the NSPS to the gasifier, as the regulation was properly applied to the package boiler in the July 2000 permit. Therefore today's response addresses this comment as it relates to the gasifier.

EPA disagrees that the permit needs to be revised. The facility description states that the gasifier will combust only natural gas, lignin, processed biosolids and digester gas and the permit properly requires the facility to identify the fuels that are being combusted as part of the initial start-up notification. However, the issue of which fuel is most polluting and how the emissions from the firing of these fuels are controlled is not germane because the substantive emissions limitations of NSPS Db apply only to coal-fired and oil-fired steam generating units and thus do not apply to the gasifier.

Petitioner Nebus expresses a concern that the annual capacity factor is only calculated on a 12-month rolling average, instead of a daily average. She refers to the 365-day rolling total that exists elsewhere in the permit. EPA wishes to clarify that the annual capacity factor (ACF) is a ratio of how much energy a steam generating unit actually produces in a year divided by the maximum energy it could produce if it ran 8,760 hours (365 days x 24 hours) at its maximum heat input capacity. This factor is generally useful because some of the requirements in the NSPS vary depending on the ACF for a facility. In Masada's case, there are no applicable requirements that depend on the unit's calculated ACF, and Masada has no restrictions on how high its ACF can be. Therefore, EPA believes there would be no value if Masada were to calculate its ACF on a more frequent basis than required by the NSPS as stated. EPA denies the petitions on this issue.

2. Emerging Technologies

Petitioner Nebus expresses a concern that the permit is ambiguous as to whether Masada will use an emerging technology. Permit condition 1-4.2 (4), in applying the NSPS at Subpart Db (Industrial-Commercial-Institutional Steam Generating Units) to the gasifier, specifies that Masada must report whether it intends to use an emerging technology to control SO_2 emissions as part of the notification of startup. The regulations also specify that EPA must review and approve a determination of whether a technology qualifies as emerging for purposes of this rule. If the EPA determines that a technology qualifies as "emerging", then the regulation at 40 CFR 60.42b allows facilities using emerging technology to have more lenient control requirements for SO_2 than facilities using conventional technology.

Ms. Nebus claims the emerging technology should be named in the permit, and the public has a right to know whether the Administrator makes such a determination in a given case. EPA

agrees that in a case where the Administrator does determine that a technology qualifies as emerging, and the facility receives more lenient permit limits as a result, the public should be informed. However, as noted previously, the standards regulating emissions of SO_2 at 40 CFR 60.42b only apply to facilities that combust coal or oil. Because the gasifier does not combust these fuels, it is not subject to this standard.

EPA understands why there may be some confusion on the part of the petitioner regarding whether Masada will use an emerging technology. As it happens, the dry lime injection and spray dryer absorber to be used by Masada to control SO_2 emissions from the gasifier are conventional technologies. EPA denies the petitions on this issue.

C. Environmental Justice - Executive Order 12898

EPA also received a petition arguing that EPA failed to evaluate the "environmental disparate impacts" on minority and low-income communities under Executive Order 12898.[10] The petition asserts that the proposed plant site is in the vicinity of a day care center, nursery, retirement home, senior citizen apartments, three public schools and three low-income housing projects. The petitioners state that EPA had extensive involvement in reviewing the NYSDEC permit, which now "carries EPA's imprimatur." Petitioners cite, by way of example, letters and meetings between EPA and the NYSDEC on the adequacy of the state's proposed and draft permit, meetings and letters between Senator Richard Shelby (R-AL), Masada CEO Daryl Harms and Administrator Browner, and the Administrator's May 2, 2001 Order.

Executive Order 12898, signed on February 11, 1994, focuses federal attention on the environmental and human health conditions of minority populations and low-income populations with the goal of achieving environmental protection for all communities. The Executive Order also 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 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. I recently reaffirmed EPA's commitment to ensuring that environmental justice is secured for all communities in a memorandum to senior Agency officials dated August 9, 2001.

Environmental justice issues can be raised and considered in a variety of actions carried out under the Clean Air Act, as for example when EPA or a delegated state issues a PSD or NSR

[10] The petition was signed by the following people: Talkini Alves, Vidal Milland, Kristine Hannon, Bridget Coppola, Nicole Young, Kathleen House, Campbell House, Susan Cohen, Debbie Carlisle, Roberta Constantino, and Elizabeth Collard.

permit.[11] Unlike PSD or NSR permits, however, title V generally does not impose new, substantive emission control requirements, but rather requires that all underlying applicable requirements be included in the operating permit. Title V also includes important public participation provisions as well as monitoring, compliance certification and reporting obligations intended to assure compliance with the applicable requirements.

In this particular case, petitioners have not demonstrated that the Masada title V permit fails to properly identify and comply with the applicable underlying requirements of the Act, the approved state implementation plan, or the requirements of title V itself; thus, the petition to object to the permit must be denied. In addition, the record does not indicate that concerns about environmental justice and the application of the Executive Order were raised to NYSDEC during the comment period on the revised permit which ended on June 25, 2001. EPA's title V regulations provide that issues may not be raised for the first time in the context of a petition to the Administrator. 40 CFR §70.8(d). This issue is, therefore, not one which provides grounds for me to object to NYSDEC's issuance of the Masada permit.

However, as explained in the May 2001 Order, as a recipient of EPA financial assistance, the programs and activities of NYSDEC, including its issuance of the Masada permit, are subject to the requirements of title VI of the Civil Rights Act of 1964, as amended, and EPA's implementing regulations, which prohibit discrimination by recipients of EPA assistance on the basis of race, color, or national origin. 42 U.S.C. § 2000d et seq.; 40 CFR 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.[12]

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[11] Indeed, as indicated in the response to another Title V permit petition, section 173(a)(5) of the Clean Air Act requires that a permit for a "major source" subject to the NSR program may be issued only if an analysis of alternative sites concludes that "the benefits of the proposed source significantly outweigh the environmental and social costs imposed as a result of its location, construction or modification." See Borden Chemical, Inc., Title V petition No. 6-01-01 (Dec. 22, 2000), pp. 34-44, available at http://www.epa.gov/region07/programs/artd/air/title5/petitiondb/petitions/borden_response1999.pdf.

[12] 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 CFR § 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 CFR § 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 CFR § 7.15.

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 Jeanette Nebus, Robert LaFleur, Deborah Glover, Talkini Alves, Vidal Milland, Kristine Hannon, Bridget Coppola, Nicole Young, Kathleen House, Campbell House, Susan Cohen, Debbie Carlisle, Roberta Constantino, and Elizabeth Collard.

April 8, 2002 / *S* /

Dated: Christine Todd Whitman,
Administrator