

August 18, 2000

The Honorable Carol M. Browner
Administrator
U S Environmental Protection Agency
Ariel Rios Building
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460

Re: Petition to Object to Title V Facility Permit Issued to the Proposed Orange Recycling and Ethanol Production Facility in the City of Middletown, New York

New York State Department of Environmental Conservation Permit ID: 3-3309-00101/0003

Dear Administrator Browner:

This is a formal petition pursuant to 40 CFR § 70.8(d) and 6 NYCRR §201-6.4(d), requesting that you, as EPA Administrator, object to the Title V Facility Permit (the “Permit”) issued to Pencor Masada Oxynol, LLC (“Masada”) on July 25, 2000 purportedly authorizing the construction of the proposed Orange Recycling and Ethanol Production Facility (the “Project”). This petition is being submitted on behalf of Campbell Plaza, Kathleen House and Sue Cohen in their individual and representative capacities (the “Petitioners”), and other concerned citizens of the City of Middletown, New York (the “City”).

As set forth in greater detail below, the primary basis for this petition is that the Permit and the issuance of the Permit by the New York State Department of Environmental Conservation (“NYSDEC” or the “Permitting Authority”) fail to comply with “applicable requirement(s)” as the term is defined under 40 CFR Part 70 (“Part 70”) and the requirements of Part 70. Without limitation, such failures include:

- 1) The failure of the Permitting Authority to properly identify and include as applicable requirements the Prevention of Significant Deterioration of Air Quality (PSD) regulations codified in 40 CFR 52.21; the New Source Performance Standards (NSPS) regulations codified in 40 CFR Part 60; the National Emissions Standards for

Hazardous Air Pollutants (NESHAP) regulations codified in 40 CFR Part 61 and Part 63; and, New York State New Source Review (“NSR”) requirements under 6 New York Code of Rules and Regulations (“NYCRR”) 231.

- 2) The failure of the Permitting Authority and Masada to submit and/or make available to the public requisite information necessary to review the proposed Permit;
- 3) The failure of the Permitting Authority to properly inform the public of its right to petition.

This petition is timely in accordance with 40 CFR § 70.8(d), despite NYSDEC’s erroneous notification to the public by letter dated June 2, 2000 (the “June 2, 2000 letter”). In said letter, NYSDEC advised recipients of EPA’s review of the proposed permit and generally of the public’s “right to petition EPA directly and object to the issuance of the Title V Air Permit.” NYSDEC further stated that, “[y]ou will be notified when this (the 60-day) period begins.” A true copy of the June 2, 2000 letter is attached hereto as Exhibit 1. NYSDEC’s subsequent notification to interested members of the public is dated July 25, 2000 (the “July 25, 2000 letter”), and states,

[p]lease note that in our June 2, 2000 letter, it was incorrectly stated that the 60-day time period for submitting petitions to the U.S. EPA Administrator would begin when DEC issued the Title V Air permit. In fact, the regulations state that the 60-day period automatically starts at the end of the initial 45-day period for the U.S. EPA to accept the DEC draft of the Title V permit. That 45-day period started on May 4th and ended on June 18th. Therefore the 60-day petition period has already begun and will end on August 21, 2000. . . . there are 27 more days to actually submit any new or additional petitions to the U.S. EPA Administrator in Washington, D.C.

A true copy of the July 25th, 2000 letter is attached hereto as Exhibit 2. ¹

Pursuant to 40 CFR §70.8(d), if EPA does not object in writing to a proposed permit, any person may petition the EPA Administrator within 60 days after the expiration of the Administrator’s 45-day review period. The Administrator’s review period commenced no sooner than May 5th and

¹ At a minimum, the July 25th, 2000 letter constitutes an admission by NYSDEC of its failure to comply with the requirements 6 NYCRR §§621.9(e)(2) requiring NYSDEC to reference, in the responsiveness summary, the procedures for petitioning the EPA Administrator set forth in 6 NYCRR §201-6.4(d). As these regulatory provisions were included in New York’s June 1996 submissions to the Administrator for approval of its Part 70 program, noncompliance with said provisions with respect to the issuance of the Permit constitutes a failure to comply with the requirements of Part 70. As a result of such failure, EPA is required to object to the Permit.

ended no sooner than June 19th. Accordingly, the 60-day period to petition the Administrator ends no sooner than August 21, 2000 unless otherwise extended on the basis of NYSDEC's incorrect notification.

BACKGROUND TO THE ISSUANCE OF THE PERMIT

It appears that the fate of the Project is being decided based largely on political and other interests rather than on an objective application of the requirements of the Clean Air Act (the "Act") using sound engineering principles. To this date, Masada has not provided adequate data nor substantiation of its emissions estimates. Considerations that are not relevant under Part 70 appear to have driven the review of the Project in an apparent attempt to circumvent or obscure the Clean Air Act requirements that properly apply. This is particularly the case with respect to the circumvention of PSD/NSR requirements. NYSDEC, by limiting public review and participation, has enabled the perversion of the permitting process. The following is a brief recap of the permit review record for the Project.

Masada submitted a Title V permit application to NYSDEC for the Project on or about December 21, 1998. The application lists SIC codes of 4953 (Refuse Systems) and 2869 (Chemical Processes). Masada proposed emission limits for SO₂ of 228 tons per year; NO_x of 99 tons per year and CO of 125 tons per year. Neither vendor guarantees, nor pilot scale emissions testing data were provided in support of the application. The gasifier/boiler maximum design heat input was listed as 239.24 MMBTU/hr and for the package boiler was 145.56 MMBTU/hr.

Discussions between EPA and NYSDEC regarding the applicability of PSD/NSR to the Project began on or about March, 1999. By letter dated March 25, 1999, EPA Region 2 advised NYSDEC of its conclusion that the Project is subject to PSD because ". . . there is a chemical process plant (a PSD 28-named category source) capable of emitting more than 100 tons/year (of SO₂) within the facility. . . ." notwithstanding the fact that NYSDEC considered the overall purpose of the facility to be "to dispose of municipal waste. . . ." A copy of EPA's March 25, 1999 letter is attached hereto as Exhibit 3.

By letter dated April 7, 1999, NYSDEC sought to convince EPA that, although the entire facility would emit far in excess of 100 tons per year of SO₂, emissions associated with the chemical activity within the source would be less than 100 tons per year. NYSDEC's reasoning was apparently based on an allocation of the gasifier/boiler emissions primarily to the waste disposal function as opposed to the chemical processing activity. However, NYSDEC did not, in its letter, provide any

rationale for its allocation of boiler/gasifier emissions. A copy of NYSDEC's April 7, 1999 letter is attached hereto as Exhibit 4.

On May 4, 1999, Masada, its counsel, technical consultants and NYSDEC staff met with EPA officials to further discuss the applicability of PSD to the Project. At this meeting, Masada projected actual SO₂ emissions from the Project to be 138.7 tons per year and NO_x emissions of 96.4 tons per year. EPA was told that the size of the gasifier/boiler is 196MMBTU/hr and the package boiler is 131 MMBTU/hr. Masada stated its intent to install pollution controls for SO₂. However, according to an EPA memorandum dated May 12, 1999, the resultant emission rates would probably not meet the PSD requirements for Best Available Control technology ("BACT"). A copy of EPA's memorandum dated May 12, 2000 is attached hereto as Exhibit 5.

By letter dated May 6, 1999, Masada's counsel, Arnold & Porter, stated its case regarding the applicability of PSD to the Project. First, Arnold & Porter asserted the alleged environmental benefits of the Project as "an environmentally sound and sustainable alternative to traditional disposal methods." In addressing EPA's contention that PSD applies, Arnold & Porter explained that the expenses associated with the installation and operation of a wet scrubbing system for SO₂ removal at the Project "would destroy its viability, and would thereby cause a loss of all of the associated environmental benefits. The client has indicated to me, in no uncertain terms, that if these controls are required, the project will not be built." (P.2). Arnold & Porter went on to explain the importance to the Project of the boiler/gasifier that would cause the excessive SO₂ emissions. "Considering the revenue streams for this facility, the principal economic value of the lignin gasifier is to eliminate the lignin, thereby avoiding the need to pay for its landfill disposal." A copy of Arnold & Porter's letter dated May 6, 1999 (with attachment) is attached hereto as Exhibit 6.

As a result of EPA's preliminary determination of PSD applicability, political supporters of Masada began a campaign to influence EPA's review of the Project. By letter dated May 6, 1999, Joseph DeStefano, Mayor of the City wrote to President Clinton in pursuit of "political cover" for a departure, by EPA Region 2, from prior EPA precedent in evaluating PSD applicability. Continuing on the alleged "environmental benefit" theme, the Mayor advocated for a less stringent application of the PSD regulations in the name of so-called "environmental responsibility." A copy of Mayor DeStefano's letter dated May 6, 1999 is attached hereto as Exhibit 7.

Nonetheless, Region 2 steadfastly maintained its correct interpretation of the PSD requirement. An internal memorandum, dated May 18, 1999, from the Region 2 Office of Regional Counsel to the Regional Administrator states that "the source is subject to the Prevention of

Significant Deterioration (“PSD”) regulations because it is a chemical process plant with the potential to emit 138 tons per year of SO₂.” A copy of the EPA Region 2 memorandum dated May 18, 1999 from Joe Siegel to Jeanne Fox is attached hereto as Exhibit 8.

Sometime around the middle of May, EPA was provided with a copy of the Title V permit application dated December 21, 1998 for the first time. Thus, for the first time, EPA learned that the application proposes a gasifier/boiler and package boiler that are substantially larger than that previously discussed. EPA also learned that actual emissions are projected to be 227 tons per year of SO₂, not the 138 tons per year previously represented.

On or about May 24, 1999, Senator Richard Shelby (R) of Alabama and Masada CEO Daryl Harms meet with EPA Administrator Carol Browner in support of the Project. By letter to Administrator Browner dated June 4, 1999, Senator Shelby claimed that,

[t]here is widespread support for this type of waste facility and Masada has bipartisan support for this particular project because: [t]he environmental community strongly supports this development, with no environmental opposition . . . [and] . . . [w]hile this ‘first of its kind’ facility is extremely costly, a non-waste (SIC) classification dramatically reduces the ability to deploy this beneficial technology into lower cost disposal markets. . . . I urge the EPA to uphold the NYSDEC findings that this facility is not subject to PSD review under Title V.

Senator Shelby’s unabashed support for the Project ignores both the law and the asserted opposition of those in close proximity to the Project including three federally subsidized housing projects, three schools and countless businesses and residences. A true copy of Senator Shelby’s letter dated June 4, 1999 is attached hereto as Exhibit 9.

On June 7, 1999, Masada and its consultants met with EPA to discuss discrepancies between the technical data submitted to EPA and the Title V application dated December 21, 1998. During said meeting, Masada again modified the size of the gasifier/boiler claiming that it will be 244.8 MMBTU/hr and that the package boiler will be 65.50 MMBTU/hr. Estimates of total emissions from the Project were again revised to 228 tons per year of SO₂, 81 tons per year of NO_x and 66 tons per year of CO. By this point it became apparent that Masada was engineering the Project on the fly, primarily in an attempt to avoid a PSD applicability determination from EPA. Masada was and remains unable to correlate process throughput or output to emissions and Masada was and remains unable to provide vendor guaranteed emission rates. Nor, did Masada provide any pilot plant emissions testing results.

Less than three weeks later, on or about June 25, 1999, Masada's consultants once again revised the SO₂ and NO_x annual emissions estimates to 225 tons and 90 tons respectively.

By letter dated July 26, 1999, Masada's consultants submitted revisions to its Title V application. According to the letter, "[t]he changes in the revised information reflect design modifications, the most recently completed testing results (late June 1999) and NYSDEC comments." The alleged testing results were not made available to the public. Nor, were any vendor emission guarantees provided. In fact, the Emissions Estimate Revised Document stated that,

[t]he emissions estimates should not be interpreted as proposed emissions limits for the Title V application but as supporting information. All information contained herein including, but not limited to, pollutant emission rates, control efficiencies, pollution control systems, operating parameters, and hours of operation are presented for informational purposes only and not to be construed as emission limits or any type of permit condition or constraint.

Nonetheless, Masada's attached "Emission Calculations for Proposed Permit Limits" states, "[t]he emissions limits presented in the application were developed using the information in the Emissions Estimate Revised document (July, 1999) and applicable regulatory limits." The application states that the Project will process 230,000 wet tons per year of mixed solid wastes ("MSW") and new information indicating that it will also process 32,000 wet tons per year of waste paper. Also added to the application was the processing of sewage sludge - 26,404 tons per year of 2% solids and 396,068 tons per year of 18% solids. The package boiler size was revised to 84.1 MMBTU/hr and total annual emissions was again revised to 205 tons per year of SO₂ and 98 tons per year of NO_x. A true copy of the relevant pages of Masada's revised Emissions Estimate Document and Emissions Calculations for Proposed Permit Limits dated July 26, 1999 is attached as Exhibit 10.

On July 29, 1999, in response to Senator Shelby's letter, EPA Assistant Administrator for the Office of Air and Radiation, Robert Perciasepe informed the Senator that,

[w]e are presently reviewing this project and have met jointly with Masada, NYSDEC, and our Region II office in order to better understand the activities associated with this project, as well as the levels of air pollution emissions that will result. . . . to that end, we intend to make a decision as quickly as possible. Please know that the information which you provided will be considered as that decision is made.

A true copy of EPA's response letter to Senator Shelby dated July 29, 1999 is attached as Exhibit 11.

On or about August 6, 1999 Masada submitted a revised Title V application to NYSDEC that removed SIC Code 2869 (chemical process) from the application. On or about August 26, 1999, Masada again submitted revisions to the application revising the size of the package boiler to 123.6 MMBTU/hr. There was still no test data made available to the public. Nor were any vendor emission guarantees provided. Nonetheless, on September 22, 1999, NYSDEC issued a draft Title V permit for the Project and commenced a 30-day public comment period that closed on October 22, 1999.

NYSDEC's Notice of Complete Application was dated August 25, 1999 and was published September 22, 1999. According to the notice, the Project will process 230,000 wet tons per year of MSW, 513,000 wet tons per year of sewage sludge, 32,000 tons per year of waste paper and up to 364 tons per year of septage and leachate. Not one of the many applications submitted by Masada, nor the record available to public indicated that septage or leachate would be processed at the Project. A true copy of NYSDEC's Notice dated August 25, 1999 is attached hereto as Exhibit 12.

During its review of the draft air permit, EPA Region 2 cited numerous deficiencies and defects in the draft permit. By letter with attachment dated October 20, 1999 (the "October 20, 1999 Comment letter"), Region 2 advised NYSDEC not to issue the Title V air permit to Masada unless and until its concerns and issues were fully resolved. A true copy of the October 20, 1999 Comment letter (with attachment) is attached hereto and appended to Exhibit 21 and is hereby incorporated into this petition. Each and every comment in the October 20, 1999 should be considered a separate ground which the Petitioners hereby set forth as a basis for objecting to the Permit.

According to the October 20, 1999 letter, Masada's air permit application did not meet the applicable requirements of Title V of the Clean Air Act Amendments of 1990 (the "Act") and EPA's regulations promulgated thereunder. Nor did it allow EPA to make a final determination as to the applicability of PSD/NSR, NESHAP or NSPS regulatory requirements.

By letter dated October 22, 1999 to a citizen who had expressed concerns about the environmental impacts of the Project, the EPA Region 2 Director of the Environmental Planning and Protection Division, Kathleen Callahan, stated that,

[w]e [Region 2] share some of the concerns [regarding environmental impacts from the Project] raised in your letter. . . . Please note that on October 20, 1999, EPA Region 2 provided comments to the NYSDEC regarding deficiencies of this draft Title V permit.

A true copy of EPA Region 2's letter dated to Laura Cohen dated October 22, 1999 is attached hereto as Exhibit 13.

Subsequent to the October 20, 1999 letter, the political hand wringing continued. By letter dated October 20, 1999, Senator Shelby again wrote to EPA Administrator Browner in support of the Project implying that a favorable PSD decision was a political imperative as the Project was cited in a ceremony touting an Executive Order promoting biomass initiatives. Ironically, Senator Shelby questioned the integrity of EPA's decision making stating,

I am concerned by your Agency's prolonged effort to delay or thwart development of Masada Oxynol's timely project. I am aware of the many influences on your New York Region II office's decision making process. I urge you to ensure that your Agency's decision on the Masada Oxynol project can be made independently as has the State of New York's decision. I question Region II's ability to deal with this matter in a fair and impartial manner.

A true copy of Senator Shelby's letter to EPA Administrator Carol Browner dated October 20, 1999 is attached hereto as Exhibit 14.

Middletown Mayor Joseph DeStefano also asserted political pressure on EPA Region 2. In a letter addressed to Region 2 Regional Administrator, Jeanne M. Fox, the Mayor claimed that, "[r]egion 2 has been unresponsive to the City's concerns and seemingly has maintained a closed mind. . . . We believe that Region 2 should relinquish their role in this project and Headquarters should assume full responsibility since this project has clearly significance beyond the region." This letter was in addition to the Mayor's call to Assistant Administrator Persiasese's office on or about October 5. Neither Senator Shelby nor Mayor DeStefano were able to articulate any legal interpretation in support of their position. A true copy of the letter from Mayor DeStefano to Region 2 Administrator Jeanne M. Fox dated Friday October 22, 1999 is attached hereto as Exhibit 15.

Internal correspondence at EPA headquarters strongly suggests that the PSD applicability determination was being influenced primarily by political rather than legal and technical considerations. In fact, numerous internal e-mails at EPA headquarters make reference to political pressure and politically-based decision making with respect to the Masada application. Attached hereto as Exhibit 16 with attachment, are true copies of e-mails provided in response to a FOIA request to EPA.

By letter dated November 2, 1999, Masada responded to EPA's October 20, 1999 comment letter. According to Masada, "[n]o substantive new information is conveyed in this transmittal, except to address new comments by Region 2. . . . A refuse processing facility classification eliminates by definition a large number of the comments contained in region 2's October letter."

Most notable to Masada's responses are its claims pertaining to the gasifier/boiler.

The gasifier fuel is not fossil fuel nor is it waste, similarly divorcing the gasifier system from traditional waste combusters. (P. 2) . . . The primary purpose of the gasifier is 1) to provide internal energy to the facility and 2) to beneficially reuse lignin, a byproduct of the MSW conversion process. (Attachment P. 11)

Masada's response as to the purpose of the gasifier/boiler directly contradicts the prior assertion of its counsel as set forth above, that "the principal economic value of the lignin gasifier is to eliminate the lignin, thereby avoiding the need to pay for its landfill disposal." A true copy of Masada's letter with attachment, dated November 2, 1999, is attached hereto as Exhibit 17.

Despite being provided little or no new substantive information, on or about December 6, 2000, EPA issued its determination that the Project is primarily a municipal waste collection and processing plant thus subject to the 250 tons per year PSD applicability threshold rather than the 100 ton threshold applicable to a chemical processing plant. Absent from EPA's determination is any analysis of the Masada's November 2, 1999 submittal. Rather, it appears that the primary purpose of EPA's December 6, 2000 letter was to rationalize a finding that PSD does not apply to the Project. The lynchpin to EPA's PSD analysis was two-fold: 1) reliance on Masada's projected revenue stream as a basis for finding that the primary activity at the Project is waste collection and processing as opposed to chemical processing, and 2) an allocation of the emissions between the chemical process plant and the waste processing function. In essence, the full extent of EPA's analysis of the issues is as follows,

The information Masada provided indicates that the proposed facility is primarily a municipal waste collection and processing plant. Waste collection and processing is the purpose of the contractual agreement between Masada, the city of Middletown and surrounding towns. In addition, Masada's information indicates that more than 70 percent of the revenue [projected to be] generated by the project results from tipping fees associated with the collection of municipal solid waste and sewage sludge.

Steam from the gasifier and natural gas-fired boiler is used for various internal needs at the proposed facility, including drying the waste, cooking the processed waste in the hydrolysis process, fermenting and distilling the sugar solution, and evaporating the spent sulfuric acid for reconcentration purposes. Arguably, the hydrolysis/cooking step, which is important for breaking down the municipal solid waste into reusable components, could also be considered an activity associated with the ethanol production process (chemical process plant). However, it is EPA's judgment, that, in the case of the proposed facility, the step more appropriately belongs with the waste processing aspect. Accordingly, more than 80% of the steam produced by the proposed facility's boilers is attributable to the proposed facility's waste processing function. Based on the allocation of the steam produced, EPA does not consider the boilers to be a primary part of the embedded chemical process plant. Therefore, the ethanol production process will not emit 100 tpy or more of any SO₂. (P.2).

EPA did not and apparently cannot provide any explanation for how it arrived at the 80% allocation of the boiler emissions to the waste processing operations.

EPA's conclusion is at odds with Masada's assertions in its November 2, 1999 letter claiming, in essence, that the "[l]ignin is not a waste," that the primary purpose of the boiler is to "provide internal energy to the facility . . . and to beneficially reuse lignin." (P. 11). It becomes increasingly apparent that Masada's claims regarding the composition of the lignin, as either waste or fuel, and the purpose of the gasifier/boiler are constantly changing depending on the which potentially applicable requirements are being reviewed and the regulatory objective of Masada. Beyond its regulatory determinations, EPA attached thirteen pages of permit conditions that attempt to make the limitation on the size of the boilers and the proposed emissions caps federally enforceable. These conditions basically acknowledge the obvious, that Masada is unable to correlate process feedstock and ethanol production with emissions. Thus, EPA essentially gave up in trying to require Masada to do so and instead authorized a first-of-its-kind Title V permit that is based not on emissions data, testing or guarantees, but rather almost exclusively on attempting to monitor compliance with facility wide emission caps. A true copy of EPA's letter dated December 6, 1999 is attached hereto as Exhibit 18 with attachment. Interestingly, the letter is signed by Kathleen Callahan, Director of Environmental Planning and Protection, as opposed to the Air Program staff.

By letter dated December 22, 1999, Ms. Callahan, on behalf of Regional Administrator Fox, responded to Mayor DeStefano's request that Region 2 relinquish its role to EPA Headquarters in the review of the proposed Orange Recycling and Ethanol Production Facility. In its response, EPA all but admits that Masada's application lacked the data and information required for a proper permit review.

Please understand that one of the difficulties EPA experienced with Masada is the acquisition of final emissions estimates concerning the various air pollutants that the proposed facility will generate. In a number of instances, the emissions estimates have increased and changes have occurred to the design specifications involving the facility's gasifier/boiler system— the primary source of the facility's air pollution emissions. For example, the original estimate of sulfur dioxide has been increased several times since the initial estimate was submitted to EPA in March of 1999. The predicted annual tonnage of sulfur dioxide has changed from almost 140 tons per year (tpy) to the most recent estimate of 246 tpy. Also nitrogen oxide emissions have changed from 81 tpy to the most recent estimate of 99.5 tpy. In addition, the amount of sewage that will be processed by the facility has increased from 49,999 tpy to 71,820 tpy. These changes affect our analysis of the proposed facility under the Act.

Finally, since the quantity of waste material this facility will process has changed a number of times and, as stated in the proposed facility's Title V application '...emission rates, control efficiencies, pollution control systems, operating parameters, and hours of operation are presented for informational purposes only and not to be construed as emissions limits or any type of permit condition or constraint...' special care is needed to ensure that the health and safety of the residents of Middletown are protected."

Nonetheless, EPA assured the Mayor that, "Region 2 and our Headquarters offices remain committed to implementing the President's 'Biomass Energy Initiative,'" and "that EPA supports the type of innovative effort shown by the developers of this project to address the solid waste problem in this area of New York." A true copy of EPA Region 2's letter dated December 22, 1999 is attached hereto as Exhibit 19. It should be noted that neither Masada's November 2, 1999 letter nor EPA's December 6 and December 22, 1999 letters were made available to the public during the public comment period for the Project.

Despite the public being totally in the dark about what had transpired since September 22, 1999, on December 29, 1999 a public hearing (legislative hearing) was held on the September draft permit. The hearing was scheduled only two days before New Years Eve 2000 at a time when turnout would likely be minimized due to the holiday season. Despite the inconvenient timing, approximately 500 people attended, forcing the hearing to be moved to a larger venue. Of the fifty nine witnesses testifying, nearly all expressed opposition to the Project. The very first witness, Orange County Executive Joseph Rampe, testified that, "there is no garbage crisis in Orange County. . . the cost of garbage disposal (in Orange County) is not spiraling out of control." A true copy of the transcript of the legislative hearing is attached hereto as Exhibit 20. Despite scheduling the public hearing more than two months after the close of the public comment period according to NYSDEC's September 22, 1999 notice, NYSDEC never explicitly advised the public of their right to submit written comments beyond October 22, 1999 and up until the close of the hearing.

During the hearing, the Petitioners submitted a detailed and thorough set of comments dated December 29, 1999 (the "1999 Spectra Comments"). A copy of the 1999 Spectra Comments constituting the testimony of Robert C. Lafleur is attached hereto as Exhibit 21. As set forth below, NYSDEC responded to the 1999 Spectra Comments primarily by deferring to EPA's December 6, 1999 letter. Accordingly, Petitioners hereby incorporate each and every comment contained in the 1999 Spectra Comments as a basis for objecting to the Permit as if they were fully reprinted herein. Notwithstanding said incorporation, many of the issues raised in the 1999 Spectra Comments are set forth below.

In a letter dated March 29, 2000, Region 2 of EPA, in conjunction with various offices within

EPA Headquarters, provided feedback on a subsequent draft Title V Permit for the Project. From the letter, it can be surmised that EPA met with representatives of Masada and NYSDEC on March 7, 2000 and as a result of said meeting, NYSDEC prepared a new draft permit addressing concerns of EPA. The public was not provided a copy of EPA's concerns, was not represented at the meeting and was not provided an opportunity to review the "latest draft title V permit" for the Project. As is apparent from the letter, EPA's primary concern was that the permit include adequate "federally enforceable permit conditions that will limit potential-to-emit (PTE) for sulfur dioxide (SO₂) and nitrogen oxides (NO_x) to minor source levels." A true copy of EPA Region 2's March 29, 2000 letter is attached hereto as Exhibit 22 with attachment.

Based on the totality of EPA correspondence, it appears that EPA gave up on attempting to accurately estimate or quantify the emissions from the Project and gave up in its attempts to verify Masada's emissions estimates. In fact, EPA went so far as to acknowledge in its March 29, 2000 letter that "this is a new EPA approach to limiting PTE;" an approach that had apparently never before been found acceptable to EPA. In essence, EPA approved the issuance of a hollow permit for a synthetic major source. The permit is hollow because rather than implementing the results of a thorough emissions analysis and design review, the permit primarily sets forth a number of up-front conditions attempting to keep the proposed facility from emitting more than 250 tpy of SO₂ and 100 tpy of NO_x. The obvious intent of these conditions is to use the Title V permit to authorize construction of the proposed facility without subjecting it to PSD/NSR. As stated by EPA in its letter dated March 29, 2000, "we have consolidated these conditions for the purpose of clarity. EPA has attempted to do that in the attached pages and has added other conditions that EPA deems necessary for federal enforceability purposes." As set forth in the 1999 Spectra Comments and in subsequent comments filed by Petitioners on March 31, 2000, Petitioners contend that issuance of a hollow, synthetic major Title V Permit, through the use of a plant wide applicability limit for a proposed source, is not authorized by the Clean Air Act and is therefore beyond EPA's legal authority.

On March 31, 2000, Spectra Environmental Group, Inc., filed Supplemental Comments (the "2000 Supplemental Comments") on behalf of Petitioners. The basis for said comments as they pertain to the Project's Title V permit review was Masada's November 2, 1999 letter and EPA's December 6, 1999 letter which were not provided to the public during the public comment period. The fact that NYSDEC responded to the 2000 Supplemental Comments by referencing these letters is indicative of the scope and materiality of the aforementioned letters. That said letters were not made available to the public further demonstrates noncompliance with Part 70's public participation and information availability requirements. A true copy of the 2000 Supplemental Comments is

attached hereto as Exhibit 23. NYSDEC responded to the 2000 Supplemental Comments primarily by deferring to EPA's December 6, 1999 letter. Accordingly, Petitioners hereby incorporate 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.

NYSDEC's response to the comments received during the public comment period and during the public hearing (the "NYSDEC Responsiveness Summary") is dated May 4, 2000 and was made available to the public at the Middletown Thrall Library on or about June 2, 2000. Typical of the NYSDEC Responsiveness Summary, is its response to the 1999 Spectra Comments section entitled "Air Issues Summary." This section can be found at the end of the 1999 Spectra Comments pertaining to the Title V permit review for the Project (P.16) and states,

The Commenter therefore concludes that the proposed facility is a chemical processing plant, a listed source in Section 169 of the CAA. Accordingly, the applicant's major source emissions threshold is 100 tons per year. Even based on the applicant's incomplete and questionable emissions data, the facility emissions exceed this threshold. In addition, the emissions from the support activities at the facility must be included in any determination of NSR applicability. The applicant has failed to adequately quantify its emissions, in large part because the facility design and engineering are incomplete. As a result, the emission limits proposed by the applicant are illusory and will not effectively assure that the applicant's emissions stay below major source thresholds. In fact, due to the substantial sources of potential emissions that were not provided by the applicant or reviewed by DEC, it is highly likely that the applicant will exceed major source emissions levels for criteria pollutants as well as hazardous air contaminants. For that reason, the applicant should be subjected to PSD/NSR so that appropriate and necessary control equipment can be designed in to the facility. Lastly, using plant wide applicability limits in a Title V permit to allow a new source to avoid NSR is entirely inappropriate and a violation of the CAA. If this method allows a proposed source to circumvent NSR, expect to see it duplicated by other applicants. (P. 16)

In response, the NYSDEC Responsiveness Summary states only, "[s]ee USEPA letters dated Dec. 6, 1999 and March 29, 1999." (P. 5 of 5). The net affect of the NYSDEC response is 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. Accordingly, Petitioners file this petition on the basis of, without limitation, Petitioners' previously submitted comments and rightfully expect a substantive response by EPA to this petition including, without limitation, the 1999 Spectra Comments and the 2000 Supplemental Comments (collectively, "Petitioners' Comments") incorporated herein. A true copy of the NYSDEC Responsiveness Summary is attached hereto as

Exhibit 24.

Lastly, it should be noted that a similar proposal by Masada in Birmingham, Alabama was withdrawn by Masada after the Birmingham City Council voted to conduct a further independent evaluation. A copy of a letter from the Birmingham Office of City Council to Masada dated August 9, 2000 is attached hereto as Exhibit 25.

THE BASIS FOR THIS PETITION²

As is clear from the record, the technical foundation for the Permit is primarily smoke and mirrors from Masada which has never provided final designs and vendor guarantees, nor made available alleged pilot plant data for public review. It is unlikely that Masada even possesses the final designs that would be necessary for PSD approval. Instead, construction is being authorized through a Title V review that has been adulterated by political pressure. In response to that pressure, EPA has enabled Masada to circumvent PSD/NSR and other applicable requirements by devising a first-of-its-kind Title V permit that illegally utilizes a plant-wide applicability limit (“PAL”) as a basis for permitting a *proposed* major source. Furthermore, EPA has arbitrarily allocated the estimated plant-wide emissions to the Project’s waste disposal function, thus, purportedly avoiding PSD/NSR requirements. Rather than subjecting the process to the requisite public scrutiny, NYSDEC facilitated and obfuscated Masada’s scheme from the public with a premature and limited public comment period, misleading or erroneous public notices, and non-disclosure of the key documentation upon which the Permit is based. Accordingly, the process and methodology involved in the issuance of the Permit will not survive judicial scrutiny.

Masada Does Not Provide Sufficient Process And Engineering Information to Accurately Determine the Project’s PTE

A source’s size and therefore applicable requirements under the Act are determined by its PTE which is its annual capability, at maximum capacity, to emit a pollutant under its physical and

² As set forth above, Petitioners incorporate in full the whole of Petitioners’ Comments previously submitted to NYSDEC as if they were fully reprinted herein as, without limitation, grounds for this petition.

operational design except as constrained by federally enforceable permit conditions. 40 CFR §52.21(b)(4). In the present case, the proposed facility's physical and operational design is yet to be determined. It is abundantly clear from Masada's Emissions Estimate Document, dated July 25, 1999, that Masada does not possess the operational data and design for much of its emission unit components and therefore, cannot accurately estimate the type and quantity of emissions that are likely to result from its operations. The proposed project is still at the design stage and is not ripe for review under the Act. As a result, Masada's application repeatedly estimates emissions by reciting the regulatory limit followed by statements like "[n]ecessary controls will be installed to meet an outlet concentration of ..." (Emissions Estimate Document (revised) Table 3-2). This is not an acceptable approach to estimating emissions or to describing the facility for which construction authorization is sought.

Based on the descriptions provided, the reviewing agencies (NYSDEC and EPA) cannot possibly know exactly what control devices will be installed or whether they will work to achieve the promised emission levels. From the permitting record, it is apparent that EPA recognized the insufficiency of the materials provided by Masada in support of its application and instead took an untried and unauthorized approach to permitting the Project. Rather than relying on sound engineering practices, test data or vendor guarantees, EPA is relying on after-the-fact monitoring as the basis for permitting. The Permit purports to authorize construction of the Project³ despite the fact that regulators, the public and Masada lack any certainty whatsoever that the project can meet its emissions limits.⁴

Masada's Emission Estimates Are Not Thorough or Sufficiently Reliable

The analysis presented in Masada's Emission's Estimate dated July 25, 1999 does not satisfy Masada's primary obligation to provide the amount of criteria pollutants and HAPs that would be emitted from the proposed facility and the applicable emissions limitations. Except for broad

³ Title V was not enacted to substitute for preconstruction review for a major source and Masada has not provided any legal authority supporting such a use of the Title V program.

⁴ That emission unit designs are incomplete is also illustrated by Masada's inability to correlate increases in raw material feedstock (wastes) with impacts on emission quantities and largely explains why Masada is resisting preconstruction PSD/NSR. See for example, EPA October 20, 1999 Comment Letter, Comment #2, P. 1. As set forth below, Masada's inability to correlate feedstock input to emissions output tends to render ineffective and unenforceable the emission limits it has proposed.

references to studies conducted by the Harris Group (no report has been provided to or made available to the public), a private organization, and a reference to a confidential engineering report, Masada essentially wants the impacted community to take them at their word that the facility's emissions will be below "major source" levels. However, there are many factors that suggest that Masada has seriously underestimated emissions.

Masada's emissions estimates fail to include all sources of emissions. Pursuant to 6 NYCRR §201-3.2(c), no source owner and/or operator may omit emissions from exempt or trivial activities from emission calculations to determine if a stationary source is subject to:

1. Title V facility permitting; and/or
2. New Source review pursuant to subpart 231; and/or
3. Prevention of significant deterioration.

Emissions from trivial sources, upon incorporation into the facility's total NO_x emission inventory, may push NO_x emissions beyond the NSR major source threshold of 100 tons/year. See letter from Steven Riva, US EPA Region II to John Hogans, GNOSTIC dated September 17, 1997 ("NY may want to leave some margin of error for malfunctions/maintenance or other unknowns (e.g., an exempted unit left out of calculation) and cap facilities not at 100% of a major source threshold, but at a 95% to 97% level."). Numerous emission sources are improperly assumed by Masada to be insignificant and their emissions were not quantified and included in Masada's emission summary.

Masada's PTE calculations are not based on round the clock operation as required by 6 NYCRR Part 212 which is EPA-approved. PTE must be calculated based on maximum emission rates for 8760 hours of operation. The application and the draft permit calculations of potential emissions are based upon a 8040 hours per year operation limitation. By doing this, the applicant is misrepresenting the numbers so as to fall below major source thresholds.

Masada's Title V application provides emissions calculations for only SO₂, NO_x and PM. These calculations are not reliable. Moreover, no calculations were provided for PM₁₀, VOC's and CO, all of which the facility has a significant potential to emit.

Masada's Emissions Estimates Are Inaccurate, and the Proposed Limits on PTE Are Not Likely to Be Met

NYSDEC and EPA have the authority and the obligation to ensure that only those limits that

are ‘effective’ in limiting emissions are considered in determining PTE. EPA Policy Memorandum, *Options for Limiting the Potential to Emit (PTE) of a Stationary source Under Section 112 and Title V of the Clean Air Act*, January 25, 1995. Given the multitude of factors that detract from the reliability of Masada’s emissions estimates (e.g: heterogenous feedstock; unproven, uncommercialized technology; lack of equipment designs and engineering; omission of emission sources), emission caps that provide such a small margin of safety from major source levels appear to be arbitrary, capricious, imprudent and unreliable to avoid major PSD/NSR. For Masada’s proposed limits to have preclusionary effect, its emissions estimates and analysis should be sufficiently detailed and reliable to justify such small margins of error. Without appropriate assurances of reliability and credibility, Masada may not use its rough estimates to cap out of potentially applicable requirements regardless of EPA’s novel and illegal approach utilizing after-the-fact monitoring as the basis for a pre-construction finding that the Project will comply with applicable requirements.⁵

The Facility Will Be a Major Source of NO_x Even Taking into Account the Limits and Emissions Controls Proposed by Masada

As set forth in the analysis attached hereto as Appendix A, the Project will be a major source of NO_x and is therefore subject to the New York State nonattainment NSR requirements of 6 NYCRR 231. Masada’s projection of NO_x emissions based on a potential to emit (“PTE”) of 97.4 tons/year is misleading for a number of reasons:

- Masada’s use of AP-42 emission factors to determine NO_x emissions from a package natural gas-fueled boiler is erroneous since (1) it uses an emission factor for SO₂, and (2) it fails to include uncontrolled emission factors relevant to the Project;
- Masada’s assumption of a NO_x control efficiency of 87.61 by adding an SNCR to a caustic scrubber, limestone injection-spray dryer and baghouse combination (the combination does not remove any NO_x), has no legitimate basis (Masada does not identify the vendor which offers such guaranty nor does it offer any data from applicable operations elsewhere);
- Masada’s reliance on unknown “pilot plant studies” are incredulous and, at best, amateurish

⁵ This relationship between reliability of emissions data/estimates and the margin of safety beneath major source thresholds is inherent to the legality and legitimacy of measures limiting PTE to avoid applicable requirements. It is axiomatic that the smaller the margin of error, the more reliable need be the emissions data.

as every engineer knows that certain scale-up considerations (including appropriate factors of safety) must be included while designing a full-scale operation based on pilot plant data;

- the Masada-supplied information on the use of natural gas to run the gasifier-boiler is essentially incomplete and questionable since it has not identified a single operation where lignin is being combusted (every combustion process is dependent on (1) combustion time, and (2) temperature, the latter is directly related to the type and amount of fuel used); and,
- Malcolm Pirnie's analysis of a lignin residue sample is not representative of the current project description.
- Masada's calculation of emissions based upon 8040 hours per year rather than 8760 as required under 6 NYCRR Part 212.

In view of the above, Masada's claim that the PTE for NOx at 97.4 tons/year is representative is nothing but a wishful number, devoid of any rational basis or credible support. Since this emission rate is too close to the 100 tons/year limit, it is more than likely that this limit will be exceeded.⁶ As a result, for the purpose of NSR within the Ozone Transport Region, the Project should be treated and reviewed as a major source.

Masada Has Not Provided Suitable Information to Determine the Applicability of Various Potentially Applicable Standards

As a result of Masada's inability to accurately estimate emissions or to create effective enforceable limits on PTE, it is not possible to determine whether or not the Project is subject to various potentially applicable requirements. The standards set forth below are not intended to be exhaustive, but are provided as a starting point.

Federal Standards

- a) 40 CFR Part 60 - Subpart Eb

⁶With such a small margin of error below major source levels, the Applicant is required to utilize more reliable emission estimating methods. Comments dated December 29, 1999, pg 13. See also, *Introduction to Stationary Point Source Emission Inventory Development*, STAPPA, ALAPCO, EPA Emission Inventory Improvement Program, July 1997, Chapter 4, "Emission Estimation Procedures."

The Proposed Permit classifies the facility as a Refuse System not subject to 40 CFR Part 60, Subpart Eb (Standards of Performance for Large Municipal Combustors for Which Construction is Commenced After June 19, 1986). As discussed in greater detail below, based on the data provided by Masada, this conclusion is probably erroneous.

Subpart Eb applies to >250 tons/day boilers burning solid waste as fuel. See 40 CFR 60.50b, 60.51b. Using the name "gasifier/boiler" provided by Masada, the facility's combustion device is indeed a boiler. The "gasifier/boiler" name does not change its real purpose: heat transfer. Masada attempts to conveniently distinguish the lignin used as fuel from municipal solid waste.⁷ Instead, Masada calls the lignin a byproduct of the ethanol production process (allegedly a secondary process to the Refuse System facility despite its estimated 7,100,000 gallons of ethanol manufactured for sale each year).⁸ Such assumptions must be grounded in legal and technical analysis which Masada has failed to provide. See EPA October 20, 1999 Comment letter Comment Nos. 1 (P. 1) ("How does the lignin differ in content from processed "municipal solid waste"?); No.3 (P. 2)("The applicant should indicate the distinction that can be made between the "gasifier/boiler system" and a municipal waste combustor" as defined in 40 CFR 60.51b."); No.6 (P. 2)("What is the primary purpose of the gasifier/boiler system [e.g., steam production or lignin eliminator]"). Therefore, unless Masada can provide data to the contrary, the facility is subject to Subpart Eb.⁹

Applicability of Subpart Eb requires, among other things, a site selection process that would include formal public participation in the decision to locate the facility in Orange County. As a result, through Masada's mischaracterization of the facility, the public has been denied a right to participate

⁷ According to The Lignin Institute, lignins are derived from trees, plants and agricultural crops. Hence, Masada's use of the term "lignin" is inappropriate. It has incorrectly named the solid residue remaining after hydrolysis as lignin whereas in essence, it is nothing but a hydrolyzed solid waste with no inherent beneficial use. Real lignins, on the other hand, can be used as a binder, dispersant, emulsifier or sequestrant (see Exhibit 26, enclosed). It is also highly questionable that "lignin" from Masada's operation will have any characteristic of a fuel, or for that matter, any caloric or BTU value.

⁸ Masada's explanation of the purpose of the "gasifier" demonstrates that it is indeed a "support facility" for the chemical processing to produce ethanol. In addition, its marketing materials and counsel claim that burning of the residual lignin is an alternative to land filling which would otherwise render the project uneconomical.

⁹ The process used to treat the municipal solid waste (MSW) is essentially "acid hydrolysis" which removes the sugar from the waste stream. The remaining "inert" material is not distinguishable from municipal solid waste which could be considered "sugar-free MSW" but MSW nonetheless. Accordingly, the alleged gasifier (this is not a gasifier in the strictest sense) is really a municipal waste combustor that is burning the "sugar-free MSW."

in the site selection decision.

b) 40 CFR Part 60 -- Subpart O

Masada has failed to expressly demonstrate that the proposed facility will not be subject to 40 CFR 60, Subpart O. Based on its submitted information, Masada does not appear to know whether all sewage will be hydrolyzed or later combusted along with any lignin in the "gasifier/boiler system". Therefore Subpart O applies, unless it can be demonstrated, rather than simply stated, that 10% sewage sludge waste will not be incinerated or the incinerator will not burn more than 2203 lbs./day of municipal sewage sludge.

c) 40 CFR Part 60 Subpart --Subpart VV.

40 CFR Part 60, Subpart VV (Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry) regulates equipment (e.g., pumps, valves, etc.) used at facilities which, among other compounds, produce ethanol as an intermediate or final product. See 40 CFR 60.480, 60.481. It is undisputed that the proposed facility produces ethanol as a final product. Therefore, the standards of Subpart VV must be incorporated into any issued permit.

d) NESHAPS

40 CFR Part 63, Subpart EEE (National Emission Standards for Hazardous Air Pollutants From Hazardous Waste Combustors) applies to all new sources burning hazardous waste in a combustor. See 40 CFR 63. Masada has failed to demonstrate that the lignin or residual municipal solid waste incinerated and used for heat transfer will not contain hazardous materials. Therefore, unless detailed technical data is provided to the contrary, Subpart EEE may apply.

Additionally, Masada has failed to provide data regarding mercury levels that will be found in incoming wastewater treatment plant sludge. Stationary sources which incinerate or dry wastewater treatment plant sludge containing mercury are subject to 40 CFR Part 61, Subpart E (National Emission Standards for Mercury). Said sources are subject to testing, sampling and reporting mandates. See 40 CFR 61.53(d). Therefore, Masada needs to determine if mercury will be present in the incoming wastewater sludge and, if so, incorporate Subpart E in any permit issued.

Masada Has Mischaracterized Its Primary Activity to Avoid Triggering PSD/NSR

As indicated earlier, in the original Title V Permit application, dated December 15, 1998, Masada described its proposed facility with SIC codes 4953 - for refuse systems and 2869 - for industrial organic chemical operations. In its revised application, dated August 6, 1999, Masada conveniently omitted the SIC code for industrial organic chemical processes, apparently seeking to classify the proposed facility as a facility primarily engaged in the disposal of refuse. The omission of the SIC code for industrial organic chemical operations is an obvious attempt by Masada to avoid being reviewed as a “chemical process plant.” As a source category listed in Section 169 of the Act, chemical process plants trigger NSR if they have the potential to emit (“PTE”) 100 tons or more of any criteria pollutant per year. This is in contrast to non-listed source categories (i.e. refuse systems) for which the NSR threshold for a criteria pollutant is 250 tons per year.

In the Project, the collection and physical processing of refuse serves only as one of many raw materials for an eventual chemical operation for producing ethanol.¹⁰ The process flow diagram of the Project clearly suggests that it is a chemical processing facility specifically designed to produce ethanol and carbon dioxide. There are no less than ten operations taking place in this facility that are, by all definitions, chemical and/or biochemical unit processes:

1. Acid Hydrolysis
2. Ion Exchange
3. Acid Recovery
4. Fermentation
5. Filtration
6. Gasification
7. Neutralization
8. Distillation
9. Molecular Sieve
10. Anaerobic Digestion.

Masada plans to use MSW only as an ingredient. This MSW must be fortified with several other ingredients, for example, biosolids or leachate, sulfuric acid and a cellulose source to complete the chemical recipe. Without these additional ingredients or feedstock, there cannot be any ethanol generation, the ultimate goal of the Project. Moreover, the processes that will be followed by Masada

¹⁰ MSW is one of many ingredients to be used for feedstock in Masada’s chemical processing operation. Besides MSW, the proposed process includes the chemical processing of organic landfill leachate, septage, and two forms of sewage sludge derived from the treatment of municipal wastewater. Moreover, for acid hydrolysis, Masada plans to use large quantities of sulfuric acid while waste paper will be used as a source for cellulose.

to manufacture ethanol are all typical chemical unit processes. They do not reflect any of the traditional garbage or refuse collection or handling operations.

As a result, the Project must be identified with SIC Code 2869 for an industrial chemical processing facility and not with SIC Code 4953 for a refuse system. Masada's current reclassification of the Project is simply a convenient, opportunistic ploy to bypass the PSD permitting program and thereby avoid any agency review and scrutiny regarding the environmental and safety issues that the proposed Project actually presents.

Masada's counsel has argued that "because tipping fees paid for the service of disposing of waste account for more than 70 percent" of the proposed Project's revenues, its "principal service and primary activity is waste disposal under SIC Major Group 49."¹¹ This is neither correct or truthful. First, the percentage of revenues allegedly derived from tipping fees is merely a supposititious projection prematurely based on agreements that are not binding and have not taken effect.¹² Use of such agreements as a basis for determining the SIC classification of the Project is speculative at best, if not arbitrary and irrational. Second, as clearly stated in the Standard Industrial Classification Manual (1987), the Technical Committee on Industrial Classification was guided by the following three general principles:

- the classification should conform to the existing structure of American industry;
- each establishment is to be classified according to its primary activity; and
- the proposed classification must be statistically significant in terms of the number of people employed, the volume of business conducted, and other measures of economic activity.

Unquestionably, for the proposed Project, the principal product will be industrial grade ethanol. Most of the personnel to be employed and the greatest proportion of the payroll will be engaged in the chemical processes involved in producing ethanol. The trucking/hauling and separation of MSW will not require any professional training or high-level skills. Since the proposed Project will be principally be involved in ethanol manufacturing using MSW for biomass, the nature of feedstock cannot classify the facility. It must be classified by its final product and the processes

¹¹ Letter dated May 6, 1999 from Jonathan S. Martel of Arnold & Porter to Seven C. Riva of U.S. EPA Region II.

¹² The validity of the alleged agreements between the Middletown IDA and subscribing municipalities is an open question and vulnerable to legal challenge.

involved.¹³

Third, the primary activities of the proposed Project will not involve *disposal* of MSW. Rather, they will involve the *conversion* of MSW to ethanol based on chemical technology that solely relies on chemical reaction to convert biomass to ethanol.¹⁴ Standard Industrial Classification Manual (1987) indicates that SIC Code 4953 for Refuse Systems is to be used for establishments that are primarily engaged in the **collection and disposal** “processing or destruction or in the operation of incinerators, waste treatment plants, landfills, or other sites **for disposal of such materials.**” [emphasis added] Masada’s proposed Project does not include any disposal of refuse other than the unwanted residue of its chemical processes -- lignin (which is to be incinerated). It only includes chemical processes that facilitate conversion of MSW to industrial grade ethanol by relying on chemical reactions and synthesis involving MSW and various chemical additives, such as cellulose and sulfuric acid.

Masada therefore cannot, should not and must not be allowed to use a covert ploy, defying all the standard rules for industrial classification, to call its Project something that it is not. The end-product of the proposed Project is not just a minimum or insignificant amount of ethanol, it is Masada’s goal to sell more than 7.1 million gallons of industrial grade ethanol each year from the Middletown Facility. Clearly it is ethanol, a distinct organic chemical, that Masada plans to make and market. The only distinguishing feature here is that instead of using a traditional agricultural biomass or feedstock, for example, corn, Masada will be using municipal solid waste. Masada does not indicate any other discernible change from the established technology for converting biomass to ethanol.

Hence, the Project must be reviewed by EPA as belonging to SIC Code 2869. The only unique and innovative item here is Masada’s attempt to rename and reclassify an ethanol production operation from a chemical processing plant to a refuse processing plant. This reclassification obviously distorts the truth but not the technology. It is still a chemical operation no matter what Masada calls it.

¹³ During a Planning Board hearing for the City of Middletown, Masada’s Project Manager openly stated, “[t]his is a chemical process. We are a manufacturing facility. . . . We will only be transporting sulfuric acid and ethanol, the only two main products.” (David Webster, March 3, 1999, City of Middletown Planning Board Minutes, P. 16).

¹⁴ The Project is also a fuel conversion plant – also a listed source category with a 100 tons per year PSD threshold.

Emissions from the Gasifier/Boiler Are Attributable to the Proposed Project's Chemical Processing Operations.

Despite Masada's best attempts to obfuscate the purpose of the gasifier/boiler, it is abundantly clear, and in fact, Masada previously admitted that 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.

Lignin is the remaining woody material that results from the hydrolysis of the cellulose into simple sugars. It is the gasification [combustion] of lignin, into which sulfur is bound during the hydrolysis process, that results in sulfur dioxide emissions. Considering the revenue streams for this facility, the *principal economic value of the lignin gasifier is to eliminate the lignin, thereby avoiding the need to pay for its landfill disposal.*¹⁵ [emphasis added]

In addition, Masada's permit application to NYSDEC, its project materials and numerous publications on the subject indicate that the lignin is a residual of chemical processing due to the simple fact that the lignin constituent of the waste feedstock does not hydrolyze during the acid hydrolysis step in the ethanol production process.¹⁶ As the lignin is a residue of the chemical manufacturing process, the emissions resulting from its disposal are attributable to the Project's chemical processing.

Masada, in its response to EPA dated November 2, 1999, contradicts its prior statements and, in fact, rewrites the laws of chemistry by asserting that, "[l]ignin is produced from the molecular conversion of processed MSW in the acid hydrolysis steps. Lignin is not produced in or from the ethanol production process. Lignin is not a waste." Lignin, of course is not *produced* by the acid hydrolysis process; rather, it is residue of said process that, as a waste product, has no inherent value or use. The acid hydrolysis process serves only to separate the fermentable sugars out of the feedstock in order to produce ethanol. Obviously, lignin is not produced as a by-product. The "principal economic value of the gasifier [boiler] is to eliminate the lignin," the unwanted waste of the ethanol production process so that it need not be land filled. Therefore, it is the ethanol production process that requires the gasifier/boiler to handle and dispose of lignin. Accordingly, the gasifier/boiler is an essential part of the overall ethanol production operation. Masada's revised and

¹⁵ Arnold & Porter (Martel) to EPA Region 2 (Riva), letter dated May 6, 1999; page 5.

¹⁶ According to the U.S. Department of Energy, Office of Fuels Development, Biofuels Program, "[t]he biomass ethanol process creates a *residue* that contains mostly lignin which is very combustible." (<http://www.ott.doe.gov/biofuels/partners.html>). See also, Golueke, *Biological Reclamation of Solid Wastes*, Rodale Press, 1977.

misstated interpretation of the process and its wastes can only be explained by Masada's fervent desire to prevent the allocation of the gasifier/boiler emissions to the chemical process in order to avoid PSD/NSR.

Masada May Not Use a Plant-wide Emissions Cap in a Title V Permit to Avoid Preconstruction Review (PSD/NSR)

Masada proposes federally enforceable plant-wide applicability limits ("PALs") of 99.5 tons per year of NO_x and 246 tons per year of SO₂ to be implemented through Title V permitting in order to avoid an initial preconstruction PSD/NSR review. The inclusion of PALs in a Title V permit was originally conceived by EPA to enhance efficiency and operational flexibility at **existing** sources by allowing certain modifications within an enforceable emissions cap without the delay that would result from premodification review.¹⁷ A PAL is a form of "source specific allowable emissions" limit (*see* 40 CFR §52.21(b)(21)(iii)) that represents the **actual** emissions baseline of a specific pollutant for the entire stationary source. The PAL methodology was not conceived, and to our knowledge has never been used, to allow a newly proposed source that is subject to PSD/NSR to avoid preconstruction review.¹⁸ In short, a PAL permit for a *proposed source* is not authorized by the Act. Its issuance would clearly exceed the authority delegated to NYSDEC by EPA under Title V of the Act.

PALs are also not appropriate for establishing facility-wide caps in a *proposed* major source that lacks any operating history and has not been subject to a preconstruction NSR. A Title V PAL is simply not a substitute for preconstruction PSD/NSR for a proposed facility.¹⁹ Allowing Masada,

¹⁷ Note that Section 502(b)(10) of the Act addresses "changes within a *permitted* facility" without requiring a permit *revision* [emphasis added]. The Act does not authorize the use of a cap in a Title V permit by a newly proposed source to avoid NSR entirely.

¹⁸ According to EPA's long-standing approach, PALs are to be used only at existing major sources in order to avoid *major modification* requirements under PSD and nonattainment NSR not to avoid pre-construction PSD/NSR for a proposed project. *See* Chapter V of the Memorandum entitled, "Review of Draft White Paper Number 3" by William T. Harnett, EPA, May 12, 2000.

¹⁹ *See, Pollution Prevention in Permitting Pilot (P4) Project, Cytec Industries Inc. Project at Region 1, Technical Support Document.* "A PAL equals the facility's actual emissions baseline that represents the facility's **normal** operations plus the applicable NSR modification threshold level. . . . The key to creating a PAL that encourages P2 [pollution prevention] activities is to set the baseline on the facility's **actual** emissions from a period that **accurately reflects the facility's normal operations.**" Pg. 10-11 [Emphasis added]. *See also*, note 2: "The key to a PAL is to ensure that the terms and conditions that show how a source complies with the PAL are practically enforceable." Masada failed to provide the process data, design, engineering and feedstock characteristics required for PSD/NSR, *inter alia*, that could provide for practical enforceability. The fact that Masada, in its first-of- its-kind source without any operating history, has proposed emissions limits so close to major source thresholds

in its first-of-its-kind proposed facility that relies on an unproven technology, to avoid PSD/NSR by the use of Title V PALs will create a process that unlawfully bypasses PSD/NSR requirements and would provide a blueprint for future applicants to avoid preconstruction review. This was hardly the intent of Congress in enacting Title V, or of EPA in proposing PALs as an operational flexibility measure.

NYSDEC Has Failed to Make Information Necessary to Review the Permit Available to the Public

It is clear from the record that the timing and short duration of the public comment/participation period has served to facilitate and obscure Masada's highly irregular permitting process. The public comment period was based on a September draft permit that is a shell of what was ultimately granted to Masada. In fact, Masada twice materially modified its application immediately prior to the commencement of the public comment period. The revised applications and support documents were not made available to the public or EPA during the public comment period.

The documents that are most material to the permitting process were either withheld from the public or postdated the public comment period. Unquestionably, the character of this permitting action was illuminated and driven primarily by EPA's October 20, 1999 Comment letter, Masada's November 2, 1999 response letter and EPA's December 6, 1999 letter that essentially withdrew and superseded EPA's October 20, 1999 Comment letter. The public was completely unaware of these documents during the public comment period and was never provided the opportunity to comment on EPA's change of position or the documentation submitted by Masada leading up to EPA's final determinations as to primary purpose and PSD/NSR applicability.

NYSDEC could have and, in fact, was obligated to place these documents into the public record prior to the December 29, 1999 hearing. In fact, as previously mentioned, NYSDEC never publicly noticed the fact that the comment period for the Title V permit application was extended until December 29, 1999, the date of the hearing. Instead, NYSDEC's prior notice indicating that the public comment period ended on October 22, 1999 remained unrevised and uncorrected. That Petitioners subsequently commented on the previously unavailable EPA and Masada correspondence does not mitigate the fact that the public in general was denied the opportunity to do so. The fact

further illuminates the point that PALs are inappropriate for proposed sources with uncertain and evolving engineering and designs.

that the public hearing was scheduled for December 29, 1999 speaks for itself.

Masada's pilot plant emissions testing data, if any, has not been made available to the public. Emissions data is not entitled to confidential treatment. Without the opportunity to review the basis for Masada's emissions estimates, the public is unable to assess or comment on the reliability (or lack thereof) of such estimates. Considering all of the irregularities attendant to the public's review of the Project, it is apparent that the public lacked the information necessary to meaningfully review their proposed Permit.

The Information Provided by Masada in Birmingham, Alabama Raises Serious Questions About the Project

It seems that Masada is prepared to do any thing to avoid submitting a permit application that may expose its vulnerability and the pitfalls of its technology. As of now, Masada has presented two proposals for making ethanol from MSW – one to the City of Middletown, New York (the “Middletown Facility”) and another to the City of Birmingham, Alabama (the “Birmingham Facility”). The planned production capacities and therefore the tonnage of municipal waste that will be used as feedstock in these two facilities clearly indicate that the latter facility is 33% larger. Yet Masada's proposals indicate that the Birmingham Facility will be responsible for lesser quantities of air pollutant emissions (for example, 220 tons per year of SO₂ at the larger Birmingham Facility as compared to 247 tons per year of SO₂ at the smaller Middletown Facility). All of these estimates are nothing but a paper exercise trying to back calculate emissions data for cleverly staying under a cap without providing even a shred of technical evidence.

Moreover, in both cases, Masada's estimates are so close from the critical level (i.e., just below the alleged triggering point) from additional permit requirements, they have to raise serious doubts as to whether these numbers have been back calculated to arrive at the desired result. This is all the more serious since in spite of repeated requests from the public, Masada is yet to provide any supporting data for its estimates and underlying assumptions. Instead, it has repeatedly claimed “trade secret and business confidentiality” to keep any information away from public review. At the same time, Masada is on the record that its technology of MSW conversion to ethanol is patented. If indeed it is patented, the patent is a public document and no confidentiality claim against its full public review can be attached. Masada's approach on the whole is not only unprecedented and unique, it is contrary to the public policy and program under which government agencies, such as EPA, have been created for necessary overview and scrutiny. If Masada's estimates can make good

scientific sense, then why is it reluctant to disclose the basis of its assumptions, calculations and technical information?

A review of Masada's documents only raises serious concerns about the feasibility of the Project and in particular, its environmental and safety permitability. From the time Masada submitted its initial permit application to its most recent submittal, numerous changes, omissions and contradictory data have been presented. These changes were apparently made due to agency and public inquiries. They are indeed a testimony that Masada does not have the full grasp of various environmental and safety issues involved and is too eager to offer a response that is not based on hard-core engineering. They simply do not pass rigorous scientific tests. Nor do they comply with the requirements of Part 70 and the Act.

CONCLUSION - RELIEF REQUESTED

For all of the foregoing reasons, Petitioners respectfully request that you object to the issuance of the Permit. The application materials and the Proposed Permit raise serious questions as to the applicability of the Prevention of Significant Deterioration of Air Quality ("PSD") regulations, New Source Review ("NSR") for new sources located in nonattainment areas, the New Source Performance Standards ("NSPS") regulations, the National Emissions Standards for Hazardous Air Pollutants ("NESHAP") regulations and the applicability of various requirements under Title III pertaining to hazardous air pollutants ("HAPs"). Since the necessary applicability determinations cannot be made based on Masada's failure to provide necessary information, it is not possible for NYSDEC and EPA to determine whether the proposed Project can satisfy the substantive requirements of these regulatory programs.

In order to avoid the required preconstruction PSD/NSR requirements, Masada has improperly and prematurely submitted an application for a Title V permit. In doing so, it has mischaracterized the nature of the Project by claiming that the Project is a refuse system whereas it is actually a chemical processing facility that uses municipal solid waste as a feedstock. Undoubtedly, the Project will cause far greater environmental and air emission impacts than are acknowledged in Masada's application and the Permit. Construction of the Project without addressing such impacts through major source PSD/NSR would clearly violate the Act and EPA's regulations promulgated thereunder. Masada's attempt to cap out of PSD/NSR through the Title V permit is beyond the authority of NYSDEC and EPA. Congress did not authorize the creation of synthetic major sources to allow a proposed major source to circumvent PSD/NSR. Additionally, the information provided in the permit application lacks any thorough quantification of the proposed facility's PTE air

contaminants and fails to effectively limit PTE in a manner that is practically enforceable. Even taking Masada's emission control assumptions at face value, the proposed Project will be a major source of NO_x. Consequently, Masada's suggestion of effective limitations on its emissions is a charade.

EPA Region 2 initially and correctly concluded that the proposed facility is a chemical processing plant, a listed source in Section 169 of the Act. It was only after political arm-twisting at EPA Headquarters that Region 2 was apparently ordered to revise its determinations. Nonetheless, the correct major source PSD/NSR emissions threshold for the Project is 100 tons per year. Even based on Masada's incomplete and questionable emissions data, the facility emissions clearly exceed this threshold without accounting for fugitive emissions. In addition, the emissions from the support activities at the facility must be included in any determination of PSD/NSR applicability. Masada has failed to adequately quantify its emissions, in large part because its facility design and engineering are incomplete. As a result, the emission limits proposed by Masada are illusory and will not effectively assure that Masada's emissions will always, or for the majority of the production period, stay below the major source thresholds. In fact, due to the substantial sources of potential emissions that were not provided by Masada or reviewed by NYSDEC and EPA, it is highly likely that Masada will exceed major source emissions levels for criteria pollutants as well as hazardous air contaminants. For that reason, Masada should be subjected to PSD/NSR so that appropriate and necessary control equipment can be designed into the Middletown facility. Lastly, NYSDEC's public notices and the NYSDEC supervised public process failed to comply with the requirements of Part 70 and denied the public the requisite information to review the proposed Permit. Additionally, NYSDEC expressly misinformed the public of its right to petition the Administrator to object to the Permit. At a minimum, NYSDEC's errors require that the relevant time periods must be extended and renoticed.

Based on the foregoing, Petitioners respectfully request that you object to the issuance of the Permit for the Project unless and until NYSDEC complies with the requirements of the Act and Part 70 and until the Project is reviewed under the regulations governing PSD/NSR in order to properly identify applicable requirements.

Respectfully submitted,

SPECTRA ENVIRONMENTAL GROUP, INC.

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President

cc: John Cahill, Esq., Commissioner
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*“The 1999 Spectra Comments” incorporated into the Petition dated
August 18, 2000 at pages 11, 12.*

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**REGARDING THE PROPOSED
ORANGE RECYCLING AND ETHANOL PRODUCTION FACILITY
IN
MIDDLETOWN, NEW YORK**

December 29, 1999

I am submitting these written comments on behalf of Campbell Plaza, Kathleen House and Sue Cohen in their individual and representative capacities (the “Commenter”), as part of the public participation process.

I have reviewed all publicly available documents developed and prepared by Pencor-Masada regarding the proposed Orange Recycling and Ethanol Facility Project. Based on my review of these documents, I have serious concerns about the feasibility of the project and in particular, the facility permitability and environmental and safety issues related to the project’s air emissions, waste handling and management plan and other significant environmental issues. There have been numerous changes, omissions and contradictory data provided by Pencor-Masada over a period of several years, which precludes any realistic assessment of the viability of the project.

I. AIR QUALITY ISSUES

Title V Facility Application and Draft Title V Permit Do Not Comply with The Requirements of the Clean Air Act

The application and draft Title V Permit, dated September 1, 1999 (the “Draft Permit”) are devoid of statutory and regulatory compliance and requisite regulatory analysis. The application materials and Draft Permit raise serious questions as to the applicability of the Prevention of Significant Deterioration of Air Quality (“PSD”) regulations, New Source Review (“NSR”) for new sources located in nonattainment areas, the New Source Performance Standards (“NSPS”) regulations, the National Emissions Standards for Hazardous Air Pollutants (“NESHAP”) regulations and the applicability of various requirements under Title III of the Clean Air Act (“CAA”) Amendments of 1990 pertaining to hazardous air pollutants (“HAPs”). Since the necessary applicability determinations cannot be made based on the current (lack of) information, it is not possible for the New York State Department of Environmental Conservation (“DEC”) and the United State Environmental Protection Agency (“EPA”) to determine whether the proposed facility can satisfy the substantive requirements of these regulatory programs.

In order to avoid the required preconstruction PSD/NSR requirements, the applicant has improperly and prematurely submitted an application for a Title V permit. In doing so, it has mischaracterized the nature of the project as a refuse system in an attempt to avoid the forementioned procedural and substantive reviews. The applicant has erroneously claimed that the project facility is a refuse system whereas it is actually a chemical processing and municipal solid waste combustion facility that will cause far greater environmental and air emission impacts than are acknowledged in the applicant’s application and the Draft Permit. Construction of the applicant’s facility without addressing such impacts (through major source PSD/NSR) would violate the CAA. Additionally, the information provided in the permit application lacks any thorough quantification of the proposed facility’s potential to emit (“PTE”) air contaminants and fails to effectively limit PTE in a manner that is practically enforceable. Consequently, the applicant’s suggestion of effective limitations on its emissions is a charade.¹

¹ A number of the comments herein were previously asserted by EPA in a letter dated October 20, 1999 from Steven C. Riva to Michael D. Merriman (the “EPA Comments” attached hereto). The Commenter hereby formally incorporates the EPA comments into this document in addition to all comments asserted herein.

Applicant May Not Use a Plant-Wide Emissions Cap in a Title V Permit to Avoid Preconstruction Review (PSD/NSR)

The applicant proposes federally enforceable plant-wide applicability limits (“PALs”) of 99.5 tons per year of NO_x and 246 tons per year of SO₂ to be implemented through Title V permitting in order to avoid an initial preconstruction PSD/NSR review. The inclusion of PALs in a Title V permit was conceived by EPA to enhance efficiency and operational flexibility at existing sources by allowing certain modifications within an enforceable emissions cap without the delay that would result from premodification review.² The PAL methodology was not conceived, and to our knowledge has not been used, to allow a newly proposed source that is subject to PSD/NSR to avoid preconstruction review. Such a PAL permit for a *proposed source* is not authorized by the CAA. Its issuance would be in excess of the authority delegated to DEC under Title V.

PALs are not appropriate for establishing facility-wide caps in a *proposed* major source that lacks any operating history and has not been subject to preconstruction NSR. A Title V PAL simply is not a substitute for preconstruction PSD/NSR for a proposed facility.³ Allowing the applicant, a first-of-its-kind proposed facility relying on unproven technology, to avoid PSD/NSR by the use of Title V PALs will create a process that unlawfully bypasses PSD/NSR requirements and would provide a blueprint for future applicants to avoid preconstruction review. This was hardly the intent of Congress in enacting Title V, nor of EPA in proposing PALs as an operational flexibility measure.

² Note that Section 502(b)(10) of the CAA addresses “changes within a *permitted* facility” [emphasis added] without requiring a permit *revision*. The CAA does not authorize the use of a cap in a Title V permit by a newly proposed source to avoid NSR entirely.

³ See, for example, *Pollution Prevention in Permitting Pilot (P4) Project, Cytec Industries Inc. Project at Region 1, Technical Support Document*. “A PAL equals the facility’s actual emissions baseline that represents the facility’s **normal** operations plus the applicable NSR modification threshold level. . . . The key to creating a PAL that encourages P2 [pollution prevention] activities is to set the baseline on the facility’s **actual** emissions from a period that **accurately reflects the facility’s normal operations**.” Pg. 10-11 [Emphasis added]. See also, note 2: “The key to a PAL is to ensure that the terms and conditions that show how a source complies with the PAL are practically enforceable.” The applicant failed to provide the process data, design, engineering and feedstock characteristics required for PSD/NSR, inter alia, that could provide for practical enforceability. The fact that the applicant, a first-of- its-kind source without any operating history, has proposed emissions limits so close to major source thresholds further illuminates the point that PALs are inappropriate for proposed sources with uncertain and evolving engineering and designs.

Applicant Has Miscaracterized its Primary Activity to Avoid Triggering PSD/NSR

In the original Title V Permit application, dated December 15, 1998, the applicant described its proposed facility with SIC codes 4953 - for refuse systems and 2869 - for industrial organic chemical operations. In its revised application, dated September 1, 1999, the applicant conveniently omitted the SIC code for industrial organic chemical processes, apparently seeking to classify the proposed facility as a facility primarily engaged in the disposal of refuse. The omission of the SIC code for industrial organic chemical operations was an obvious attempt to avoid being reviewed as a "chemical process plant." As a source category listed in Section 169 of the CAA, proposed chemical process plants trigger NSR if they have the potential to emit ("PTE") 100 tons or more of any air pollutant. This is in contrast to non-listed source categories (i.e. refuse systems) for which the NSR threshold is 250 tons.

In this facility, the collection and disposal of refuse serve only as one of many raw materials for a chemical process -- ethanol production.⁴ The process flow diagram of the project clearly suggests that it is a chemical processing facility specifically designed to produce ethanol and carbon dioxide. There are no less than ten operations taking place in this facility that are chemical plant operations:

1. Acid Hydrolysis
2. Ion Exchange
3. Acid Recovery
4. Fermentation
5. Filtration
6. Gasification
7. Neutralization
8. Distillation
9. Molecular Sieve
10. Anaerobic Digestion.

For purposes of determining the applicability of PSD/NSR, all of the emission units at the site must be aggregated and classified according to the primary activity at the site, which is determined by the principal product produced and distributed or by the services it renders (see p A.3- 4, *EPA New Source Review Workshop Manual*, October 1990). The primary activity at the proposed facility

⁴ Refuse is one component of many used for feedstock for the applicant's chemical processing operation. Besides refuse, the proposed process includes the chemical processing of organic landfill leachate, septage, and two forms of sewage sludge derived from the treatment of municipal wastewater.

is ethanol production (chemical processing). Refuse collection, as well as sewage collection and preparation are merely “support activities” that assist in the production of ethanol by providing the feedstock for production of the facility’s principal product, ethanol. Note also the project title -- The Orange County Recycling and Ethanol Production Facility.

Contiguous operations that “store or otherwise assist in the production of the principal product” (ethanol) are “support facilities.” *Id.* In this instance, the collection and handling of the process feedstock, MSW and sewage sludge, as well as the combustion of the residual lignin, are support activities and any associated emissions are “to be considered part of the primary activity [ethanol production] that relies most heavily on its support.” *Id.* Accordingly, the emissions from the support activities, including the waste and sludge collection and the waste combustion activities should be aggregated with the emissions from the primary activity to determine the facility’s PTE. When aggregated, there is no doubt that the applicant’s PTE exceeds the threshold levels triggering NSR. The applicant must not avoid PSD/NSR by choosing the SIC code for a small portion of its operations for its own convenience to blatantly mischaracterize its operation as a benign refuse system.⁵

Applicant Does Not Provide Sufficient Process and Engineering Information to Accurately Determine its Potential to Emit or What Standards the Facility Must Satisfy

A source’s size and therefore applicable requirements under the CAA are determined by its PTE which is its annual capability, at maximum capacity, to emit a pollutant under its physical and operational design except as constrained by practically enforceable conditions. 40 CFR §52.21(b)(4). In the case of the applicant, the proposed facility’s physical and operational design has yet to be determined. It is abundantly clear in the applicant’s Emissions Estimate Document dated July 25, 1999, that the applicant does not possess the operational designs for much of its emission unit components and therefore, cannot accurately estimate the quantity of emissions that is likely to result from its operations. The proposed project is still at the design stage and is not ripe for review under the CAA. As a result, the applicant’s application repeatedly estimates emissions by reciting the regulatory limit followed by statements like “[n]ecessary controls will be installed to meet an outlet concentration of” Emissions Estimate Document (revised) Table 3-2. This is not an acceptable

⁵ In any event, the ethanol production operation proposed for the site, in and of itself, triggers PSD/NSR. “A source which when considered alone, would be major (and hence subject to PSD) cannot ‘hide’ within a different and less restrictive source category in order to escape applicability.” Page A. 23, *EPA New Source Review Workshop Manual*, October 1990. As set forth below, the applicant’s emission estimates and proposed limitations on PTE do not adequately avoid triggering NSR for the ethanol production facility.

approach to estimating emissions or to describing the facility for which construction authorization is sought. Based on the descriptions provided, the reviewing agencies cannot possibly know what control devices will be installed or whether they will work to achieve the promised emission levels.

Without being able to establish the source's potential emissions at maximum design capacity, it is impossible to size the proposed source in order to determine which air pollution control requirements apply and it is not possible to impose effective enforceable limitations on PTE.⁶

Applicant's Emission Estimates are Not Thorough or Sufficiently Reliable

The analysis presented in the applicant's Emission's Estimate dated July 25, 1999 does not satisfy the applicant's obligation to provide the amount of criteria pollutants and HAPs that would be emitted from the proposed facility and the applicable emissions limitations. Except for broad references to studies conducted by the Harris Group (not provided to or made available to the public) and a reference to a confidential engineering report, the applicant essentially wants the impacted community to take them at their word that the facility's emissions will be below "major source" levels. However, there are many factors that suggest that the applicant has seriously underestimated emissions.

As noted by EPA, (the EPA Comment #2) the application materials do not provide a technical analysis correlating the quantity of feedstock processed to the amount of facility emissions. It appears that at this point in its design/build process, the applicant is unable to do so.⁷

The applicant's emissions estimates fail to include all sources of emissions. Pursuant to 6 NYCRR §201-3.2(c), no source owner and/or operator may omit emissions from exempt or trivial activities from emission calculations to determine if a stationary source is subject to:

1. Title V facility permitting; and/or

⁶ That emission unit designs are incomplete is also illustrated by the applicant's inability to correlate increases in raw material feedstock (wastes) with impacts on emission quantities and largely explains why the applicant is resisting preconstruction NSR. See for example, EPA Comment #2. As set forth below, the applicant's inability to correlate feedstock input to emissions output tends to render ineffective and unenforceable the emission limits it has proposed.

⁷ This raises serious questions as to whether the applicant can remain within its proposed emissions caps while at the same time processing enough feedstock and producing enough saleable product to remain economically viable.

2. New Source review pursuant to subpart 231; and/or
3. Prevention of significant deterioration.

Emissions from trivial sources, upon incorporation into the facility's total NO_x emission inventory, may push NO_x emissions beyond the NSR major source threshold of 100 tons/year. See letter from Steven Riva, US EPA Region II to John Hogans, GNOSTIC dated September 17, 1997 ("NY may want to leave some margin of error for malfunctions/maintenance or other unknowns (e.g., an exempted unit left out of calculation) and cap facilities not at 100% of a major source threshold, but at a 95% to 97% level.")⁸ As set forth below, numerous emission sources are improperly assumed by the applicant to be insignificant and their emissions were not quantified and included in the applicant's emission summary.⁹

The applicant's PTE calculations are not based on round the clock operation as required by 6 NYCRR Part 212. PTE must be calculated based on maximum emission rates for 8760 hours of operation. The application and the draft permit calculations of potential emissions are based upon a 8040 hours per year operation limitation. By doing this, the applicant is misrepresenting the numbers so as to fall below major source thresholds.

The applicant's Title V application provides emissions calculations for only SO₂, NO_x and PM. These calculations are not reliable. Moreover, no calculations were provided for PM₁₀, VOC's and CO, all of which the facility has a significant potential to emit.

The Applicant's Emissions Estimate Document, dated July 25, 1999, is an Inappropriate Basis for Permit Limits

The applicant's Title V application Facility Emissions Summary (Attachment A- Table 1) states that "[d]ata were taken from the Emissions Estimate Document and used as a basis for establishing the proposed permit limits." As set forth herein, the information and conclusions presented in the applicant's Emission Estimate Document is neither thorough, nor reliable. In fact,

⁸ As set forth below, the applicant's Emissions Estimate claims that numerous emission sources are insignificant. The applicant has failed to quantify such emissions as required to determine the applicability of PSD/NSR or Title V.

⁹ In fact, the applicant's Title V permit application analyzes eleven emission points but Figure 1-1 of the applicant's Emissions Estimate Document (revised) shows eighteen discharge points. Although building ventilation outlets may be "trivial", they need to be addressed to determine the applicability of potentially applicable requirements. In addition, numerous vents at the proposed facility have the potential to emit significant air contaminants that should be quantified in calculating facility-wide emissions.

while relying on the Facility Emissions Summary (Attachment A- Table 1) to provide the emission caps that allegedly allow the applicant to avoid NSR, the very source of such data, the Emissions Estimate Document, states that “[a]ll information contained herein, including, but not limited to, pollutant emission rates, control efficiencies, pollution control systems . . . are presented for informational purposes only and not to be construed as emission limits. . . .” In other words, the applicant is admitting that the basis for its Facility Emissions Summary is not reliable for establishing permit limits. It is apparent from this language and the inadequacy of the Emissions Estimate Document that the applicant’s design efforts have not progressed to the point of allowing accurate emission estimates or permitting.¹⁰

1. Materials Recovery Facility (MRF)

It should be noted that fugitive emissions from the MRF activities are not and cannot be assumed to be “insignificant” as concluded by the applicant (P. 8). Nor, are such emissions deemed to be exempt or trivial under 6 NYCRR §201-3. In fact, the applicant expressly contradicts its conclusion by referring to “the *potential major sources* of particulate material, odorous and volatile organic compound (VOC) air emissions from the MRF Building” (P. 5) [emphasis added]. MRF’s are a known source of fugitive VOCs and odors. Air from the tipping floor and MSW process area will be vented directly to the atmosphere. The applicant proposes to limit such emissions through “expeditious and efficient” processing. Unspecified “time management” techniques do not constitute “effective” limitations on potential to emit. When something in the highly mechanized waste handling system breaks down, waste will build-up as deliveries continue. This is an example of no controls masquerading as effective controls.

The applicant does not provide the composition of the “odor neutralizing” chemical it proposes to use which should be analyzed for VOC and HAP content. Additionally, without identifying the chemical, it is impossible to determine whether such chemical will be effective. The applicant has not, and should be required to quantify VOC and HAP emissions for the six roof-top ventilation units to determine, among other things, the applicability of PSD/NSR as required by 50 CFR §52.21(c)(iii). Odors are often comprised of compounds that are VOCs and HAPs.

There is no backup plan for the control of the collected air from the trommels, waste transfer points and shredder in the event the gasifier goes off line. The need for make-up air for worker safety

¹⁰ Due to the first-of-its-kind nature of this project, the fact that equipment engineering and designs are incomplete and the non-heterogenous character of the applicant’s feedstock, the use of AP-42 emissions factors in the Emissions Estimate Document are inappropriate and not a reliable indicia of emissions from the facility.

suggests that the air generated in this area is not fit for breathing and that air contaminants or odors will be present in unhealthy quantities. Again the applicant is improperly relying on minimal storage and processing time to limit potential to emit.

The applicant states that articles found during its literature search conclude that “tipping floors and shredders can be a source of VOCs and odorous compounds, but proper management and facility design is *usually* adequate to keep emissions levels low” [emphasis added] (P. 8). The applicant fails to state what it is that constitutes proper management and facility design. The proposed project is a first-of-its-kind facility. There are no assurances of proper management and facility design for such a facility. Additionally, the literature apparently implies or states that VOC emissions and odors from such a facility *can* be significant. It is likely that VOCs were quantified in some of the literature. The applicant should be required to provide the cites for such literature and a listing with summaries of the “local, state and federal agency personnel” that they received information from pertaining to air emissions from MRFs.

2. Sewage Sludge Receiving Building

The applicant states that the sludge unloading and receiving area are sources of VOC/HAP emissions (P. 10). Again, the applicant does not quantify these potentially significant sources; instead, stating that it will limit potential emissions by “time” management techniques. Unspecified time management techniques do not constitute “effective” limits on PTE. The applicant fails to present any data in support of its claim that these areas are “insignificant.”

The applicant states that “the quality of the sludge generated is site-specific, varying from plant to plant, based on influent wastewater quality” (P. 11). As a result, the use of only three samples of sludge is insufficient to get representative results from the TOXCHEM+ model. Substantially more samples need to be run for the model results to be viewed as credible. Additionally, the applicant’s use of estimated detected values in place of the method detection values (MDL) where a VOC/HAP was detected at levels below the MDL causes a likelihood that the model under predicted VOC/HAP concentrations (P. 12).

In Table 3-2, the applicant estimates hydrogen sulfide emissions to be the regulatory limit of 100 ppb and states “necessary controls will be installed to meet an outlet concentration of 100 ppbv (0.1 ppmv).” This statement and methodology, repeated several times in the applicant’s Emissions Estimate, typifies the unlawful reverse engineering engaged in by the applicant. A statement that controls will be designed to meet a regulatory limit cannot be considered an effective limit on PTE. The purpose of preconstruction review is to determine whether proposed controls can meet the

applicable limit so as to assure compliance with applicable requirements. In this and other instances, the applicant has failed to identify what such necessary controls will be and nothing in the Draft Permit requires the installation of such controls.

3. Gasifier/Boiler Building

The term gasifier appears to be a misnomer as the unit referred to as a gasifier will actually be a municipal waste combustor using sugar-free MSW for fuel. See, EPA Comment #1. The emissions estimates for the combustor are not reliable without design information. Without design information, the estimated emission rates for SO₂, CO and NO_x cannot be verified and should not be the basis for avoiding “major source” status, especially considering the small margin of error the applicant proposes to allow itself.¹¹ Considering the potential variability of the input gases that will result from the heterogenous fuel source, there is a significant potential that the emissions estimates will be exceeded and sufficient excess emissions capacity (a margin of safety) should be designed in to the proposed controls. See EPA Comment #1.

The applicant states that “emissions from the gasifier are estimated using information provided by the Harris Group, Inc. and EPI, which incorporated test data obtained in late June 1999. Criteria pollutant emissions are developed using fuel analysis from pilot plant studies” (P. 16). The Harris Group/EPI test data has not been made available; nor, have the referenced “pilot plant studies.” All of this data should be made a part of the public record. Additionally, scaling upwards the much smaller Pilot Plant data is not an acceptable engineering practice and will not produce reliable estimates.¹² One of many reasons why such scale-up is not good engineering practice is that the design/build gasifier will have to operate in a highly corrosive environment to commercial standards of reliability. Such a system will be too complex and distinct to allow for a reliable scale-up of pilot plant data, especially control efficiencies. It is unlikely that a much larger commercial unit, processing a “New York” waste stream will be accurately forecasted.¹³ As set forth above, this is precisely why

¹¹ The concept behind preconstruction review of proposed major sources is to design/build in BACT or LAER at the point in which it is most efficient and effective -- during design and construction. Given the small margin of safety proposed by the applicant, the Commenter questions how the applicant will provide for BACT/LAER in the likely event that its annual emissions exceed 100 tons of NO_x, 250 tons of SO₂, 50 tons of VOCs, and/or 25 tons of combined HAPs.

¹² The Commenter cannot quantify the full extent of the applicant’s scale-up because the applicant has not provided the Pilot Plant data.

¹³ For example, NO_x is comprised largely of a thermal component. This will be highly variable in the system, as designed, where the overhead burners will fire on and off, producing large fluctuations in thermal NO_x.

PALs are not appropriate for a first-of-its-kind start-up operation.

The applicant should justify its CO emissions estimate of 50 ppm_{dv} in table 4-2. CO tends to be highly variable and is a measure of combustion efficiency. See, EPA Comment #13. Additionally, CO is produced from decaying matter and it is likely that there are many sources of CO in the proposed facility (e.g. fermentation and carbon dioxide recovery). The applicant has failed to quantify all CO emissions from the proposed facility and should be required to do so.

The BTU content of the gasifier fuels will be variable. Yet the applicant based criteria pollutant emission estimates in Table 4-3 on a fixed number. These figures need to be recalculated based on varied operating/fuel quality scenarios. Footnote (e) on Table 4-4 erroneously uses zero for non-detect values resulting in an underestimation of emissions. The method detection limit should be used.

4. Process Building

It is not clear why this section does not base emission estimates on ethanol plants currently in operation. The applicant should be required to find and provide such data and explain the basis for any discrepancies between such data and its estimates. The acid evaporators are potential sources of air contaminants, in all likelihood, VOC's and CO. The applicant should address potential emissions from this operation which should be included and aggregated with other estimated emissions from the facility.

The applicant again inappropriately sets sulfuric acid emissions at a 100 ppb limit without providing any information on the controls that will achieve such limit. Therefore, it is not possible to determine whether or not the limit is achievable. (P. 21) Preconstruction review of the design for achieving such limit is required.

5. CO₂ and Fermentation Building

The applicant refers to a "multiple effect evaporator." (P. 22). The process flow chart does

As the applicant is proposing to cap NO_x at 99.5 tons per year, several wet MSW days could easily cause the applicant to exceed 100 tons of NO_x triggering nonattainment NSR, LAER and offsets.

not indicate any such process; nor, is it discussed in the application. The applicant should quantify potential VOC and CO emissions from this process. Additionally, Alcohol Denaturing and Storage will include a 7,500 gallon gasoline tank. Gasoline and ethanol tanks are potential sources of VOC emissions. The applicant should quantify such emissions that may occur during loading and unloading. Undoubtedly, emissions data exists from the many corn-based ethanol production facilities. The applicant should be required to find and provide such data.

6. Wastewater Treatment Plant

The SBR tank is likely to be a source of VOC emissions. The applicant should provide data or other substantiation in support of its claim that SBR tank VOC emissions will be insignificant.

7. Miscellaneous Sources

The TANKS model that the applicant used to estimate VOC emissions from the storage tanks also estimates HAPs. The HAPs estimates from the TANKS model should be provided.

Based on the above, it is obvious that the emissions estimates from the applicant are not substantiated by thorough source testing, vendor guarantees and specifications, test data from EPA/DEC documents, technical literature or comparable source data.¹⁴ The applicant's use of AP-42 emission factors is not a reliable tool for estimating emissions due to the many reasons stated above. Conclusions from undisclosed pilot plant studies, entailing unknown magnitudes of scale-up, are not consistent with good engineering practice and are not reliable. The emission limits proposed by the applicant are not "effective, practically enforceable" limitations. This is fully illuminated by the instances in which the applicant used the regulatory emission limits as its design values without any demonstration that such limits are achievable. As a result, it is likely that the applicant underestimated SO₂, NO_x and CO emissions from the unit referred to as a "gasifier;" underestimated VOCs and HAPs from MSW handling; and, underestimated VOCs and CO from the fermentation process. Additionally, as discussed below, the applicant must thoroughly address the applicability of a host of NSPS, NESHAPs and MACT standards that may be applicable without effective, practically enforceable emissions limitations.

The Applicant's Emissions Estimates are Inaccurate, and the Proposed Limits on PTE are Not Likely to be Met

¹⁴ See, EPA's New Source Review Workshop Manual, October 1990, pg. A-22 for a list of acceptable sources for determining PTE.

DEC and EPA have the authority and the obligation to ensure that only those limits that are 'effective' in limiting emissions are considered in determining PTE. EPA Policy Memorandum, *Options for Limiting the Potential to Emit (PTE) of a Stationary source Under Section 112 and Title V of the Clean Air Act*, January 25, 1995. Given the multitude of factors that detract from the reliability of the applicant's emissions estimates (e.g: heterogenous feedstock; unproven, uncommercialized technology; lack of equipment designs and engineering; omission of emission sources), emission caps that provide such a small margin of safety from major source levels appear to be imprudent and unreliable to avoid major NSR. For the applicant's proposed limits to have preclusionary effect, the applicant's emissions estimates and analysis should be sufficiently detailed and reliable to justify such small margins of error. Without appropriate assurances of reliability and credibility, the applicant may not use its rough estimates to cap out of potentially applicable requirements.¹⁵

The Applicant Has Not Demonstrated That It Is Not Subject to Various Applicable Standards

As a result of the applicant's inability to accurately estimate emissions or to create effective enforceable limits on PTE, the applicant needs to address the applicability of various potentially applicable requirements. The standards set forth below are not intended to be exhaustive, but are provided as a starting point.

Federal Standards

a) 40 CFR Part 60 - Subpart Eb

The Draft Permit classifies the facility as a Refuse System not subject to 40 CFR Part 60, Subpart Eb (Standards of Performance for Large Municipal Combustors for Which Construction is Commenced After June 19, 1986). Based on the data provided by the applicant, this conclusion is erroneous.

Subpart Eb applies to >250 tons/day boilers burning solid waste as fuel. See 40 CFR 60.50b, 60.51b. Using the name "gasifier/boiler" provided by the applicant, the facility's combustion device is a boiler. The "gasifier/boiler" name does not change its purpose: heat transfer. The applicant attempts to conveniently distinguish the lignin used as fuel from municipal solid waste. Instead,

¹⁵ This relationship between reliability of emissions data/estimates and the margin of safety beneath major source thresholds is inherent to the legality and legitimacy of measures limiting PTE to avoid applicable requirements. It is axiomatic that the smaller the margin of error, the more reliable need be the emissions data.

applicant calls the lignin a byproduct of the ethanol production process (allegedly a secondary process to the Refuse System facility despite its estimated 7,100,000 gallons of ethanol manufactured for sale each year).¹⁶ Such assumptions must be grounded in legal and technical analysis which the applicant has failed to provide. See EPA Comment Nos. 1 ("How does the lignin differ in content from processed "municipal solid waste"?); 3 ("The applicant should indicate the distinction that can be made between the "gasifier/boiler system" and a municipal waste combustor" as defined in 40 CFR 60.51b."); 6 ("What is the primary purpose of the gasifier/boiler system [e.g., steam production or lignin eliminator]"). Therefore, unless the applicant can provide data to the contrary, the facility is subject to Subpart Eb.¹⁷ Applicability of Subpart Eb requires, among other things, a site selection process that would include formal public participation in the decision to locate the facility in Orange County. As a result, the mischaracterization of the facility, the public has been denied a right to participate in this decision.

b) 40 CFR Part 60 -- Subpart O

The applicant has failed to expressly demonstrate that the proposed facility will not be subject to 40 CFR 60, Subpart O. Based on the applicant's submitted information, the Commenter questions whether all sewage will be hydrolyzed or later combusted along with any lignin in the "gasifier/boiler system". Therefore, unless (through technical calculations) it can be proven, rather than simply stated, that 10% sewage sludge waste will not be incinerated or the incinerator will not burn more than 2203 lbs./day of municipal sewage sludge, the facility may be subject to Subpart O.

c) 40 CFR Part 60 Subpart --Subpart VV.

40 CFR Part 60, Subpart VV (Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry) regulates equipment (e.g., pumps, valves, etc.) used at facilities which, among other compounds, produce ethanol as an intermediate or final product.

¹⁶ The applicant's explanation of the purpose of the "gasifier" demonstrates that it is indeed a "support facility" for the chemical processing to produce ethanol. In addition, the applicant's marketing materials claim that burning of the residual lignin is the alternative to land filling which would otherwise render the project uneconomical.

¹⁷ The process used to treat the municipal solid waste (MSW) is essentially acid hydrolysis which removes the sugar from the waste stream. The remaining "inert" material is still municipal solid waste which could be considered "sugar-free MSW" but MSW nonetheless. (See, EPA Comment #1) Accordingly, the alleged gasifier (this is not a gasifier in the strictest sense) is really a municipal waste combustor that is burning the "sugar-free MSW."

See 40 CFR 60.480, 60.481. It is undisputed that the proposed facility produces ethanol as a final product. Therefore, the standards of Subpart VV must be incorporated into any issued permit.

d) NESHAPS

40 CFR Part 63, Subpart EEE (National Emission Standards for Hazardous Air Pollutants From Hazardous Waste Combustors) applies to all new sources burning hazardous waste in a combustor. See 40 CFR 63. The applicant has failed to demonstrate that the lignin or residual municipal solid waste incinerated and used for heat transfer will not contain hazardous materials. Therefore, unless detailed technical data is provided to the contrary, Subpart EEE may apply.

Additionally, applicant has failed to provide data regarding mercury levels that will be found in incoming wastewater treatment plant sludge. Stationary sources which incinerate or dry wastewater treatment plant sludge containing mercury are subject to 40 CFR Part 61, Subpart E (National Emission Standards for Mercury). Said sources are subject to testing, sampling and reporting mandates. See 40 CFR 61.53(d). Therefore, applicant needs to determine if mercury will be present in the incoming wastewater sludge and, if so, incorporate Subpart E in any permit issued.

e) CAA Section 112(r); 40 CFR Part 68

According to EPA Comment #3, P. 5, the facility will include a 22,000 gallon ammonia storage tank. Pursuant to 40 CFR Part 68, Section 68.130, an ammonia tank of this size triggers the release management plan requirements of Part 68. The applicant is required to prepare and submit a release management plan and emergency response program. Included therein must be an acceptable plan of action to inform and protect the public in the event of a worst-case release of ammonia. Also required is information as to how emergency health care will be provided. Section 68.180.

If issued, the applicant's Title V permit must list Part 68 as an applicable requirement and include a compliance schedule for the applicant to meet the requirements of Part 68.

AIR ISSUES SUMMARY

The Commenter therefore concludes that the proposed facility is a chemical processing plant, a listed source in Section 169 of the CAA. Accordingly, the applicant's major source emissions threshold is 100 tons per year. Even based on the applicant's incomplete and questionable emissions data, the facility emissions exceed this threshold. In addition, the emissions from the support activities at the facility must be included in any determination of NSR applicability. The applicant has failed

to adequately quantify its emissions, in large part because the facility design and engineering are incomplete. As a result, the emission limits proposed by the applicant are illusory and will not effectively assure that the applicant's emissions stay below major source thresholds. In fact, due to the substantial sources of potential emissions that were not provided by the applicant or reviewed by DEC, it is highly likely that the applicant will exceed major source emissions levels for criteria pollutants as well as hazardous air contaminants. For that reason, the applicant should be subjected to PSD/NSR so that appropriate and necessary control equipment can be designed in to the facility. Lastly, using plant wide applicability limits in a Title V permit to allow a new source to avoid NSR is entirely inappropriate and a violation of the CAA. If this method allows a proposed source to circumvent NSR, expect to see it duplicated by other applicants.

II. SOLID/HAZARDOUS WASTE AND RELATED ISSUES

The Project As Currently Proposed Does Not Comply with Federal and State Statutory and Regulatory Requirements Relating to the Siting, Construction and Operation of Solid Waste Facilities and the Appropriate Management of Hazardous Waste Sites

The Project Located on a Class 3 Inactive Hazardous Waste Site

The proposed site is an inactive hazardous waste disposal site with confirmed contamination of groundwater. It is currently classified as a Class 3 site in New York's Registry of Inactive Hazardous Waste Disposal Sites (the "Registry"). As a Class 3 site, the site cannot be disturbed without full compliance with the federal and state requirements regarding the disturbance of such sites. Any construction activity at this site, no matter how controlled, will be a site disturbance. Therefore, no construction work at the proposed site can commence without undertaking a proper remedial investigation/feasibility study (RI/FS) to determine what courses of action must be taken prior to disturbing the site.

The applicant puts forth no plan to close or remediate the existing landfill. Remediation of the existing site is an integral part of any brownfield development. In a recent project conducted in this very region involving the largest shopping mall in the state which was constructed on a non-hazardous landfill site, DEC required a closure plan for the landfill to be approved integral to, or prior to, granting or even considering any application for new development on the site. On the other hand, here the only document existing in the file is a work plan for the Investigation of the Middletown Landfill along with a report on site investigation which is a recapitulation of several existing reports rather than a fresh investigation. Moreover, it does not appear that this investigation

has even begun. Surprisingly, however, DEC is not even demanding a closure plan here as part of its review requirement of the applicant's application for the proposed facility.

In our past experience with DEC, Region 3 involving the shopping mall project, DEC personnel did not allow driving of piles through waste or any construction over waste fill; on the contrary, DEC made the required investigation so stringent and extensive that it became more cost effective to remove the waste. DEC's main concerns there centered around production of methane and other hazardous gases and the structural integrity of the building. Even where previous investigations did not indicate methane and other gases to be a potential problem.

The proposed construction in the present case involves excavation into and relocation of a significant quantity of waste from an inactive hazardous waste landfill known to contain drums of hazardous waste. Construction of the proposed facility on this site presents both construction and operational hazards as are fully discussed later. Selection of this site is a poor choice at best, and at worst could present a serious health and safety threat to workers and the surrounding community.

Construction Impacts Have Not Been Properly or Adequately Addressed

The Middletown landfill is listed as a hazardous waste site because of known disposal of various organic solvents and still bottom residues from the recovery of solvents, all of which constitute hazardous wastes (see p. 24, Appendix L, Site Contingency Plan). Approximately 17 acres of the 22 acre site, currently owned by the City of Middletown comprises the footprint of the Middletown Landfill and may contain hazardous wastes (see p. A-7, FEIS). The proposed construction of the facility will impact approximately 18 acres (82%) of the 22-acre parcel, including most of the landfill area.

Potential sources of hazardous organic contaminants in the landfill include drums containing hazardous materials, soil contaminated with hazardous material, and groundwater that has leached contaminants from drums or soil (see p. 24, Appendix L, Site Contingency Plan). Moreover, records indicate that incinerator ash generated from on-site incineration of some 400 tons of hazardous waste, has been buried at the landfill along with 50 tons of drummed hazardous waste.

In fact, the Contingency Plan provided by the applicant indicates that the elements of a potential remedial program for a site such as the Middletown Landfill may have to “include source removal, reduction of leachate generation, and long-term monitoring, with treatment if needed” (p. 25, Appendix L, Site Contingency Plan). The applicant, however, does not plan to undertake a single one of these measures. Instead, it plans to rely simply on its manual and/or automatic ability to

remove both metallic objects (if detached) and the soil impacted by leaking drums.

The applicant also claims that the landfill will be substantially investigated during construction and that solvent-contamination sources, if and when identified, will be removed. It does not provide a clue as to how it will detect, identify and remove such pollutants and contaminants and how they will then be transported and disposed of off-site. It has not applied for any permit for hazardous waste transportation or for that matter, a permit for a hazardous waste treatment, storage and disposal (TSD) facility required under both Resource Conservation and Recovery Act (RCRA) and Environmental Conservation Law (ECL). Yet, it acknowledges that “net 6,000 cubic yards of fill material may be left over from the grading operation of the facility” (see p. 20, Appendix B, Public Meeting Transcript/FEIS). It also professes that according to its knowledge, such material is not a hazardous waste but supplies no information if any test has been done to reach that conclusion. On the contrary, it states that should such materials be determined hazardous, it will ask for DEC’s guidance or will store such hazardous materials on-site. Pursuant to subtitle C of RCRA and attendant EPA and DEC regulations, any on-site storage of hazardous waste beyond 90 days requires a treatment, storage or disposal (TSD) facility (also known as an RCRA facility) permit. Obviously, the applicant does not have a viable contingency plan.

Furthermore, it does not address how the construction activities related to the facility may impact the environment and public health and how such adverse impact, if any, will be mitigated. This is typically accomplished through a detailed RI/FS and Risk Assessment. An inactive hazardous waste site may release hazardous substances without giving any warning. Already, several hazardous wastes and substances have been found to be present at the site.¹⁸

The applicant’s Contingency Plan fails to include an appropriate monitoring plan to determine if such releases have occurred or worse, how it will detect any future releases. In short, it fails completely to provide any assurance that there will be an appropriate and necessary prevention if and when a hazardous substance is released due to myriad construction activities at the site over a period of 18 months. As a result, it is not only inadequate, it provides absolutely no level of comfort against future accidents or unplanned releases from the site.

Necessary Elements of a Part 360 Permit Application are Missing

¹⁸ See the reports of site investigations by NUS, Gibbs & Hill, E.C. Jordan, ABB-ES -- all found several CERCLA-listed hazardous substances in both groundwater and soil sediment samples from the Class 3 area of the site.

DEC's regulations for a Part 360 permit application describe the various elements of a proper and complete Part 360 application. Moreover, pursuant to 6 NYCRR §360-1.9, the contents of an initial permit application are required to meet the following level of detail:

- inclusion of all applicable information pertaining to the type of solid waste management facility; and
- all such information must be in sufficient detail so as to allow DEC to fulfill its regulatory responsibilities.

Based on DEC's standards and criteria, the applicant must include information regarding the proposed facility in sufficient detail so as to enable one to determine (1) how the facility will be constructed, operated and closed, and how it will be monitored and maintained after closure, (2) what will be the environmental impact of the proposed project, and (3) how the design, construction, operation and post-closure monitoring and maintenance of the facility will comply with applicable regulatory requirements.

Typically, these requirements are met through comprehensive engineering plans, reports, drawings, and specifications certified by a licensed New York professional engineer. For a solid waste management facility, the engineering report must describe how the proposed facility is consistent with the state's solid waste management policy as identified in Section 27-0106 of the Environmental Conservation Law ("ECL"). Additionally, pursuant to 6 NYCRR §360-1.9(g), if the facility site classified as Class 1, 2, 3 or 4 in the Registry, or if it is to be located next to one and less than 150 feet separating the facility boundary and the border of the classified site that abuts the facility boundary, the Part 360 permit applicant must undertake several measures:

...[S]ubmit as part of a complete application sufficient information to allow the department to determine whether the proposed activity would interface significantly with any potential, ongoing or completed inactive hazardous waste disposal site remedial program at the classified site or would expose the environment or public health to a significantly increased threat of harm. This information must be submitted in the form of a report prepared by an individual licensed to practice engineering in the State of New York, in which that individual concludes and substantiates [emphasis added] that the proposed activity will neither interfere significantly with any potential, ongoing or completed inactive hazardous waste disposal site remedial program at the classified site, nor expose the environment or public health to a significantly increased threat of harm...

Such a report, pursuant to DEC's regulations, must include, but not be limited to the following:

- A general description of the hydrogeologic setting, including descriptions of the area geology, the occurrence of groundwater, the direction of groundwater flow and the extent and direction of movement of the contaminant plumes, if any;
- descriptions and evaluations of the effectiveness of any remedial actions taken to date at the classified site; and
- a discussion of the effects the proposed activity may have on any completed remediation and a discussion of the constraints the proposed activity may have on the alternative or supplemental remedial programs.

None of these mandatory regulatory requirements have been met by the applicant. Thus far, all it has submitted is an application which by DEC's own criteria and standard, cannot be acted upon for a Part 360 permit for lack of necessary information.

Finally, the project applicant states that the application is not by or on behalf of a municipality. This statement is indefensible given the background of this project. The property is owned by the City of Middletown, the project is being financed by municipal bonds and the project was proposed in response to a request for proposals from the City of Middletown for the handling of its solid waste needs. The application and DEIS state that the City of Middletown has secured long-term contracts with twelve or more municipalities in Orange County to provide solid waste disposal services using this project to provide solid waste disposal services using the project. There can be no doubt that this application for the Part 360 permit is, in fact, being submitted by or on behalf of a municipality. This triggers a number of additional requirements, such as a comprehensive recycling analysis and consistency with the Orange County Solid Waste Management Plan. The application fails to include the elements required for an application submitted by or on behalf of a municipality.

Proposed Testing To Determine What is a Hazardous Waste is Incomplete

In Appendix J, Closure Plan, the applicant outlines the steps it will undertake for closure of certain units/areas of the proposed facility. It plans to test solid residues recovered from sumps, tanks or lines for hazardous characteristics. According to its plan, the collected samples will be analyzed for ignitability, corrosivity, and TCLP-toxicity to determine whether the material involved is hazardous. Unfortunately, it leaves out the test for reactivity which is one of the four required characteristic tests under RCRA and attendant EPA and DEC regulations. If such a test is not

undertaken, the applicant will not meet the minimum testing requirements for hazardous waste characteristics under RCRA and ECL.

There is no doubt, based on the flow diagram and process description of the proposed project, that several chemical reactions will take place during the production of ethanol and other byproducts. Hence, unless a test for reactivity is included, a determination of hazardous waste will be incomplete and therefore, for all practical purposes, useless.

No Alternatives to the Proposed Project Discussed

Reasonable alternatives to the proposed action should be evaluated. Siting a major construction project on an inactive hazardous waste disposal site raises many concerns. This Region's previous experience with the shopping mall project highlights such issues well. DEC, despite data indicating little or no environmental risk to groundwater and low potential for methane migration, required that all waste materials be removed from the proposed building footprint. Additionally, DEC required a perimeter trench to intercept leachate migration and to serve as a lateral gas migration barrier. DEC also required that waste relocation be completed prior to piling. Due to DEC's insistence, all relocated waste was required to be land filled on site with a properly engineered cover system including provisions for gas venting and environmental monitoring.

In the present case, alternative sites with suitable zoning and land use classifications exist within the City of Middletown and surrounding towns. The applicant should be required to carefully evaluate alternative sites, which would avoid the numerous potential problems associated with excavating close to 100,000 cubic yards of a classified hazardous waste site.

Additional Measures Required for Construction on a Hazardous Waste Site

Construction on a hazardous waste site requires additional measures. Consistent with DEC's decision making on comparable projects, the construction of a \$100 million facility on an inactive hazardous waste landfill must address the following:

- All the requirements of 6 NYCRR §360-1.9(g) must be satisfied. Site development must assure separate monitorability for all operable units, bulk storage facilities, and waste handling facilities. This will be difficult, if not impossible, due to existing groundwater contamination and documented presence of hazardous wastes.
- Site development must not preclude appropriate investigations and remedial actions

which may be necessary at this inactive hazardous waste site.

- All waste beneath the proposed building footprint must be removed and relocated to a site. All such relocated waste must be properly placed, compacted and covered.
- Piles can serve as a vertical pathway for contamination and/or gas migration. The facility design must assess the potential for contaminant migration to provide necessary level of safety to the area residents.
- Brownfield development of a former landfill is appropriate only after following a proper RI/FS, thus fully characterizing the waste site. The proposed project would then be engineered to effectuate an appropriate remediation of the inactive hazardous waste site.

Land filling of Processed Waste Will Still Be Necessary

The proposed project will not bring an end to the County's reliance on landfills. In fact, following MSW processing, a certain minimum percentage (at least 10% of sewage sludge) of the municipal solid waste, used as daily throughput, will require land filling. The DEIS states that the project will have an operational life of thirty years and will eliminate the long-term threat of pollution from landfill leachate. This claim is misleading since the entire 100% of the feedstock will not be processed into ethanol. In actuality, the majority of the feedstock will continue to be land filled along with by-products of the ethanol process, for example, gypsum and non-usable lignin.

Traffic Impact Evaluation Is Misleading

The traffic summary on page 2-11 of the DEIS does not make any sense. Calculations show that 82.5 delivery vehicles at 22 tons would total more than 1,800 tons of MSW delivered daily. Yet the Engineering Report claims that the facility's capacity will be 960 tpd of MSW plus 1,790 tpd of sewage sludge (2,750 tpd total). Additionally, the table does not appear to include the trailer loads of waste which is not processed to ethanol and which is not recycled and must be removed for disposal at an off-site landfill. A more detailed assessment of traffic impact is warranted.

The Proposed Facility Is Based on Unproven Technology

Ethanol production from MSW feedstock is unproven. There are reportedly no commercial scale MSW processing facilities of any size operating anywhere in the world where ethanol is being

produced. Only biomass plants operating on limited and non-municipal waste feedstock, such as corn, have been successfully operated to produce ethanol. The front end processing proposed here is essentially a MRF and transfer station whereas the production processes involved are undoubtedly those of a typical chemical plant.

Orange County is already adequately served by public and private transfer facilities. Until the ethanol production technology is proven for MSW feedstock and capable of commercial scale development, DEC should not issue a permit for the proposed project. There are also serious doubts about the viability of the proposed project. Prof. Harry Parker of Texas Tech University stated openly that the hydrolysis involving various waste materials (MSW, sewage, sludge, septage, leachate, etc.) will not occur as proposed.

The Applicant Has Submitted Inconsistent Reports

The Part 360 Application has several inconsistencies and discrepancies with regard to quantities of waste to be handled, operating capacities, feed rates and the like, many of which were called out in DEC's October 26, 1999 memorandum. These inconsistencies call into question the integrity of the calculations and assumptions which were made in the application. For example, the feed rate of the dryer is inconsistent between the drawings and the mass balance calculations. In addition, both feed rates exceed the stated capacity of the dryer. Another example is that, when broken down, the annual average operating capacity is greater than the maximum daily throughput for each of the waste streams. Additionally, the Engineering Report does not account for where 463 tons/week of sludge, produced by the facility in wastewater treatment, will go. The Report is also inconsistent with regard to the amounts of individual waste streams which will be handled at the facility.

There are concerns with regard to areas of the application which are lacking information, such as, the lack of adequate alternatives for places to transfer waste streams in the event the facility is shut down, particularly with regard to sewage sludge and septage.

The application states that the facility will handle a total in excess of 610,000 tons per year. Assuming a six day/week delivery schedule the facility will be receiving approximately 2,000 tpd. The DEIS, Engineering Report and application forms are inconsistent with respect to daily throughput and waste delivery rates. In addition, the applicant should respond to the following:

- a) If C&D processing and recycling is envisioned, the application should address the requirement of 6 NYCRR §360.16.

- b) The project is stated to be design build. As such the initial permit to construct must include provisions for DEC's review and approval of the prepared engineering plans and specifications prior to construction.

The Contingency Plan Is Too Simplistic and Fails to Provide Any Specific Information

The contingency plan, prepared to address the requirements of 6 NYCRR §360-1.9(g) is overly simplistic. The plan simply takes a wait and see approach. Presence of drums of waste at the landfill site has been confirmed. The potential to encounter drums of waste while excavating and relocating close to 100,000 cubic yards of fill is very real. Measures must be considered to avoid rupturing such drums of waste as in such an event, not only the soil underneath, but also the groundwater can be contaminated very quickly.

The plan must provide much more detailed information with regard to waste excavation, relocation, staging, control of fugitive dust and volatiles, and the associated risks to public health and the environment.

The Facility Will Include a Publicly Owned Treatment Works But Wastewater Analyses Missing

The proposed process includes the receipt and processing of organic landfill leachate, septage, and two forms of sewage sludge derived from the primary and secondary treatment of municipal wastewater. The facility will be owned by the City of Middletown Industrial Development Agency (the "IDA") which will thereby have jurisdiction over the treatment of raw septage and organic landfill leachate, an industrial pollutant. The facility will function as, and in fact will be a Publicly Owned Treatment Works (POTW) subject to state and federal permitting and operational requirements. Moreover, since the facility will receive and process sludge derived from the primary treatment of municipal wastewater, it will operate as a secondary municipal wastewater treatment facility, more like an extension and expansion of the existing Middletown Wastewater Treatment Plant. As a POTW, the facility is required to obtain appropriate state and/or local permit approvals for discharge (for example, a SPDES permit) and to meet state and federal performance standards. Applications for the required POTW permits have not been submitted together with the pending air permit applications as required by DEC's uniform procedures regulations 6 NYCRR § 621(3)(a), and

no analysis of whether the facility can meet the applicable standards has been performed. Consequently, construction of the facility cannot be legitimately authorized.

Under Section 212 of the Clean Water Act (33 USC § 1292), a treatment works is any device or system used in the treatment, recycling, or reclamation of municipal sewage or industrial wastes. A public works is one owned or operated by a municipality. Under Section 502 (33 USC § 1362) a municipality is a public body created pursuant to state law and having jurisdiction over disposal of sewage, industrial wastes, or other wastes. By virtue of its ownership of the facility, the IDA will operate, as a public body with jurisdiction over the disposal of certain sewage and industrial and other wastes, a treatment works which is subject to permitting under the State Pollutant Discharge Elimination System (SPDES) regulations of the Department of Environmental Conservation.

Those regulations require (1) a permit for the construction of a POTW that will discharge wastewater to waters of the state and (2) a permit modification authorizing changes to any existing POTW. To the extent that the facility constitutes a new, publicly owned treatment works, its construction and operation requires the issuance of a SPDES permit from DEC. To the extent that the facility constitutes an expansion and extension of the existing Middletown Wastewater Treatment Plant, a modification of the Middletown Plant's SPDES permit is required to authorize the proposed change in wastewater processing which will occur as a result of facility operation. No application for construction or operation of a new POTW has been filed with DEC for construction of the facility. No application for modification of the Middletown Wastewater Treatment Plant has been filed with DEC to authorize construction of the facility as an expansion, extension and change of treatment processes at the Middletown Wastewater Plant.

If the facility is not a new POTW, nor an extension of the existing Middletown POTW, then it is certainly an industrial user of the Middletown POTW. To the extent that liquid wastewater will be sent from the facility to the Middletown Plant, the Clean Water Act requires that such "pretreatment" discharges be regulated by the POTW. To satisfy that regulation, Industrial users must apply to the POTW for authority to discharge to the POTW. No such application has been submitted, nor has it been shown how the proposed pretreatment will allow the Middletown POTW to comply with its permit limits and conditions.

In the absence of permit applications for either a POTW SPDES permit or for Industrial user discharge authority, no meaningful analysis of whether the facility can comply with applicable requirements is possible.

Inadequate Plan for Detection and Handling of Unacceptable Waste Material

In Appendix F, Contingency Plan, the applicant suggests that certain waste materials will not be accepted at the proposed facility, for example, hazardous waste, asbestos, medical waste, radioactive material, etc. However, it provides no clue as to how it will detect such waste materials, unless the generator and/or transporter of such waste materials disclose them in advance. Any segregation based on mere suspicion without a concrete detection plan can be disruptive, time consuming and costly. Moreover, if hazardous waste is mixed with non-hazardous waste, the entire mixture has to be treated as hazardous waste.

The applicant further indicates that it will engage a bypass waste hauler to haul any non-hazardous waste that cannot be processed at the proposed facility. It, however, provides no indication as to where such waste would go or how it would be treated, stored or disposed of off-site. If the plan is to landfill such waste, it must identify the landfill(s) that may accept such waste so that the permit criteria of such landfill(s) can be checked well in advance.

Geo-Technical Evaluation Raises Serious Concerns

The May 1999 Geotechnical Report by SJB Services, Inc., states that the site “will require extensive earthworks in preparation for support of foundations, floors and roadways. Because the existing fills are variable in composition and they were placed without uniform compactive effort, they would settle when loaded by foundations or floors in an erratic and unpredictable manner. Because of this unpredictability in settlement, the fills are considered unsuitable for supporting either spread foundations or floor slabs in their current condition.” The report goes on to recommend a deep compaction program for stabilizing the fill could cause releases due to the crushing of drums. Even if the deep compaction program were implemented, future decomposition of the waste mass may not only result in the production of potentially significant quantities of methane and other potentially hazardous gases, but may also result in settlement of utility and other piping systems with respect to the pile supported building foundations which could cause failure of the piping systems and potentially hazardous environmental releases.

In addition, fills in certain parts of the waste mass may cause a corrosive environment. No specific information has been provided to assess the amount of leachate that might have already been generated or will be generated during the construction period. Undoubtedly, such leachate will aggravate the piles due to its inherent corrosive nature. Unfortunately, details about pile construction are missing to determine how such corrosive attack on the piles will be avoided or mitigated. Moreover, a corrosive environment, for example, stagnant leachate, can not only be destructive to pilings drilled through the waste mass, but also may affect the structural integrity of the building.

A previous geotechnical evaluation was also undertaken for the proposed site by F.J. Dente Engineering on behalf of the applicant. The evaluation is based on limited reconnaissance and selected sampling of recovered soils as well as certain other data. The source, authenticity and statistical significance of the sample size are all unknown. Apart from this, the evaluation included a specific disclaimer based on the limited number of locations it investigated at the site. It clearly suggests that additional test borings, test pit excavations and analyses may be required.

Things get much more complex when one has to deal with dump soils over an area of approximately 17 acres out of the 22-acre landfill parcel.¹⁹ The site obviously poses all the risks of an unstable, uncompacted surface base of varying bearing capacities.

Any reliance on F.J. Dente's limited geotechnical evaluation is therefore extremely risky and imprudent since it fails to (1) indicate whether the landfill site is suitable for the proposed facility and (2) provide necessary details of foundation analysis.

Draft Site Investigation Report is Not Comprehensive

Malcolm Pirnie, on behalf of the applicant, prepared a draft site investigation report for the project site. The report acknowledges "circumstantial evidence of hazardous materials being disposed in the former landfill, which suggested the potential for mobilization of contaminants from the landfill into groundwater and/or nearby surface waters and wetlands" (p. 2, Draft Site Investigation Report - March 1999).

However, no attempt has been made to determine any potential or actual migration of contaminants from the landfill to off-site locations. This is particularly disturbing when several residential units including a public housing complex and a shopping mall are located within several hundred feet from the site. Furthermore, owners of several private water wells in the neighborhood have complained of odor and taste in their waters.²⁰ Additionally, the hydraulic conductivity of the fill and gravel deposits at the landfill are estimated to range from 1.7×10^{-5} to 2.5×10^{-3} cm/sec, based on slug tests in perimeter wells by Malcolm Pirnie (see p. 6, Draft Site Investigation Report). This

¹⁹ Pursuant to Malcolm Pirnie's recent correspondence with DEC, such dump soils consist of miscellaneous manmade areas excavated and filled with refuse. The refuse has been characterized as coal, cinders, plastic, wood, cardboard, copper wire, brick, and glass, all mixed with sand (see p. 3, Draft Stormwater Pollution Prevention Plan for Construction Activities).

²⁰ NYSDOH study found elevated levels of several heavy metals, for example, iron and zinc in the drinking well waters analyzed.

indicates a very high probability that materials spilled at the site will reach the groundwaters very quickly, and based on groundwater flow and direction, may reach other locations as well.

Malcolm Pirnie also failed to provide site-specific groundwater conditions in the bedrock of the site since there are no deep wells installed. As a result, this site investigation is superficial and incomplete. It fails to reveal the true environmental conditions of the site although it is being proposed for a solid waste management facility under 6 NYCRR Part 360.

Safety Concerns Related to Landfill Gas Generation Generally Overlooked

In its Part 360 permit application, the applicant indicated that carbon dioxide (CO₂), as a byproduct of the proposed fermentation operation, will be collected, cleaned and sold. Although not highlighted in the application, both methane (CH₄) and CO₂ are expected to be formed within the landfill even in the absence of any external interference due to past deposition of municipal waste. The landfill actually operated for nearly 40 years, beginning in the early 1930's and operating until the late 1960's. Reportedly, it was used for land filling of various types of municipal wastes.²¹

Due to the past open, uninhibited dumping practice and the confirmed presence of garbage, including C&D debris in the disposed waste materials, at least CH₄ and CO₂, and perhaps other gaseous materials, such as hydrogen sulfide, can be expected to escape from various openings and cracks in the site. These gases, particularly CH₄, is highly combustible and can cause explosion. Unless these gases are safely collected, there can be major explosions at the site. This is particularly disturbing since the proposed production facility will involve certain pyrolytic activities at very high temperatures and will produce, use or store several flammable materials, such as ethanol and natural gas.

The applicant does not provide any estimate of the methane that may be produced at the landfill nor does it indicate how it will handle or collect methane and other gases when they may escape or seep through cracks, natural or man-made borings (particularly, when some 86 piles will be driven) through the waste.

The level of health and safety concerns of the neighbors is extremely high here since the

²¹ It's anybody's guess whether industrial and/or commercial wastes, including hazardous wastes, were also dumped at the landfill since there was no concerted effort made to separate hazardous waste from non-hazardous waste during the years of such disposal. RCRA and the regulations promulgated thereunder came into effect only in the late 1970's.

project site will store several hazardous and extremely dangerous chemicals, for example, sulfuric acid, caustic soda, and aqueous ammonia. This becomes a heightened concern when one takes into account that a large quantity of natural gas will also be stored on site since approximately 145,000 cu. ft./hr of natural gas will be burnt as fuel for the gas-fired boiler on-site. As a result, a full scale safety analysis with steps for mitigating such disasters must be prepared and carefully reviewed. This is all the more important since an explosion in any part of the facility may result in tanks and pipes buckling and buildings and other structures collapsing. Similar results may also occur due to some of the landfill areas being disturbed and/or covered through the construction of various buildings, parking pavement, etc. The applicant's Part 360 permit application unfortunately downplays all such very real scenarios and provides no comfort level for the surrounding neighborhood and its people.

Odor Control at the Proposed Facility is Inadequate

Based on the design and rated capacity of the proposed project, there will be a massive storage of municipal solid waste (MSW), septage, sludge and/or leachate, all of which are highly malodorous. However, the applicant's plan to mitigate this environmental concern is limited to certain very broadly defined and vague procedures, for example, expeditious and efficient tipping and processing of delivered waste materials, good housekeeping procedures and an odor control atomizing system. No details or specificity of any of these procedures have been provided, including what kind of atomizer will be used. Furthermore, no suggestion has been made as to what would be the actual impact on various receptors which are most susceptible to odor based on prevalent wind speed and direction.

Plans to Deal With Gypsum as a Marketable Product are Simply Wishful Thinking

The applicant suggests that it will sell gypsum that will be produced when lime will be added to the hydrolyzed liquid mixture. This is nothing but wishful thinking.

During hydrolysis, various metals originally present in the waste materials to be used as feedstock, will also be hydrolyzed. As a result, when gypsum is formed by adding lime, many of these hydrolyzed metals are going to be present in varying concentrations in such gypsum. In short, the resulting of gypsum is anything but close to a commercial grade product. It is a real possibility, based on the levels of concentration of certain expected heavy metals (for example, lead, cadmium, chromium and barium) in such gypsum, that it may have to be disposed of as hazardous waste instead

of a recovered, valuable product.

The product sponsor has ignored this very real possibility and has not provided any back-up plan should such gypsum turn out to be a hazardous waste.

Lack of Long-Term Monitoring and Contingency Plan

The contingency plan provided by the applicant does not include all the necessary elements of an appropriate contingency plan pursuant to 6 NYCRR §360-1.9(h). For example, there is no showing whether additional monitoring wells will be required for proper evaluation on the impact on groundwater quality at the site, and if so, how many such deep and/or shallow wells will be installed by the applicant and at what locations within the site.²²

No Estimates Provided for Stormwater Run-Off/Construction Dewatering

The proposed facility will impact a large acreage of ground surface. The construction activities at the project site will reportedly disturb 17 acres of the 22-acre landfill parcel. This is an area much larger than five acres for which a stormwater discharge permit is currently required. In fact, the applicant will require a SPDES permit for stormwater discharge covering its industrial as well as construction activities.

Although the applicant claims to have submitted a notice of intent (NOI) for such stormwater discharges, it has not provided any estimate of how much stormwater runoff will be encountered and whether any construction dewatering will be undertaken. It has suggested construction of two detention ponds to hold stormwater runoff prior to discharge, but provided no details of such detention ponds under the pretext that they will be constructed on a design-built basis (see p. 1, Construction Stormwater Pollution Prevention Plan). This information is necessary to determine whether there is any potential for discharge of such stormwater into the groundwater system. Moreover, if the stormwater has to be sampled and monitored prior to discharge into a receiving water body or to a POTW, such information must be included in order for DEC to determine how it can monitor such discharge and what permit conditions must be imposed.

The Applicant Has Not Applied for All Required Permits

²² There were only 4 monitoring wells discovered/installed by ABB in 1993 and only 3 out of 4 were located by Malcolm Pirnie during its site investigation in 1998 (MW-102 was not found).

The applicant, through its consultants, identified the need to obtain several permits before initiating construction and operational activities at the site. However, several such permits have not yet been sought. Based on the documents submitted to various regulatory agencies, it appears that the applicant has not applied for (1) SPDES permit for any process water discharge from the facility,²³ (2) Part 364 transporter permit for non-hazardous materials to be transported off-site, and (3) a Section 401/404 water quality certification and dredging permit under the Clean Water Act from the U.S. Army Corps of Engineers for the federally designated wetlands that will be impacted at the site.²⁴

CONCLUSION

Based on my review, I find that the applicant has failed to demonstrate that the proposed facility will be a safe, viable and environmentally compatible facility. A significant portion of work, related to permit requirements and mandated under various DEC regulations, is yet to be undertaken. Additionally, necessary details are lacking, only a superficial gloss has been provided. Serious health and safety issues remain largely unresolved. Nor has the applicant demonstrated that the technology will even work. There are reasonable alternatives that exist and they must be properly evaluated. This is particularly disconcerting when several highly toxic and hazardous chemicals will be used and stored at the site along with the production of flammable (for example, ethanol) and toxic/hazardous products and/or byproducts (for example, lignin and gypsum) which may contain several toxic heavy metals.

Unfortunately, the documentation by the applicant does not reveal the true nature of the activities that will be undertaken at the project site. It is apparently oblivious that various activities of the proposed project are not only complex and difficult but also commercially untried and unproven. As a result, the proposed facility should not be permitted by DEC, EPA, and any other appropriate agency which may have jurisdiction and/or oversight over the construction and operation of the proposed facility.

²³ According to the applicant, the blowdown from the gasifier and package boiler is estimated to be 753.1 tons per week. However, no indication has been provided how this large quantity of blowdown water will be handled and/or discharged.

²⁴ Reports prepared by the applicant's consultant indicate that approximately 1.27 acres of such federally designated freshwater wetlands will be disturbed.

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The “2000 Supplemental Comments” incorporated into the Petition dated August 18, 2000 at page 13.

March 29, 2000

Michael D. Merriman
Deputy Regional Permit Administrator
Division of Environmental Permits, Region 3
New York State Department of Environmental Conservation
21 South Putt Corners Road
New Paltz, New York 12561-1696

Re: Orange Recycling and Ethanol Production Facility (OREPF)

Dear Mr. Merriman:

On behalf of Campbell Plaza, Kathleen House and Sue Cohen in their individual and representative capacities (the “Commenters”), Spectra Environmental Group, Inc., (“Spectra”) hereby submits this letter and the attached Supplemental Comments regarding the applications of Pencor-Masada OxyNol, LLC (the “Applicant”) for a Solid Waste Management Facility Permit and Title V Air Permit for the above reference proposed facility (the “Proposed Facility”). The basis for these Supplemental Comments is our review of records that were not made available to the public during the public comment period and in advance of the legislative hearing conducted by the New York State Department of Environmental Conservation (“NYSDEC”) on December 29, 1999. Such records include:

- 4) A letter with attachments dated November 2, 1999 from the Applicant (David J. Webster) to NYSDEC (Robert J. Stanton) re: Response to EPA Region 2 letter dated October 20, 1999;
- 5) A letter with enclosure dated December 6, 1999 from the U.S. Environmental Protection Agency (“EPA”) Region 2 (Kathleen C. Callahan) to NYSDEC (Robert K. Warland) re: Orange Recycling and Ethanol Production Facility (review of the Applicant’s November 2, 1999 letter);

March 31, 2000

Page Two

- 6) A letter with enclosures dated December 21, 1999 from Malcolm Pirnie, Inc. (J.M. Hall) to NYSDEC (Michael D. Merriman) re: Orange Recycling and Ethanol Production Facility; DEC Application # 3-3309-00101-00001 (response to NYSDEC's October 26, 1999 comments).

Additionally, Mrs. House, as trustee of Campbell Plaza was advised by EPA (by letter dated February 16, 2000 and received February 25, 2000) that with respect to the NYSDEC's Title V permit review, "NYSDEC has only issued a draft permit and has not completed its evaluation of the comments submitted pursuant to its public procedures." As the aforementioned material records were not made available to the public during the public comment period for the Title V permit application for the Proposed Facility, I hereby formally request that this letter and the attached Supplemental Comments be reviewed and responded to by NYSDEC on behalf of the Commenters as if they were received during the public comment period for the Applicant's Title V permit application. Further, on behalf of the Commenters, I hereby formally request that Spectra be provided with a copy of the responsiveness summary and any proposed permit if and when they are issued.

Please feel free to contact me should you need any additional information or to further discuss this matter.

Sincerely,

SPECTRA ENVIRONMENTAL GROUP, INC

Robert C. LaFleur, President

Attachments

cc: Ms. Kathleen A. House, Trustee - Campbell Plaza
Ms. Kathleen C. Callahan - EPA Region 2

SUPPLEMENTAL COMMENTS

RE: PENCOR-MASADA OXYNOL, LLC - APPLICATION FOR A TITLE V PERMIT; NEW SOURCE REVIEW APPLICABILITY DETERMINATION

EPA's New Source Review Applicability Determination Is Arbitrary, Capricious, and Erroneous

The determinations in EPA's letter to Robert Warland, dated December 6, 1999, will not stand up to either technical or legal scrutiny. The primary activity at the Proposed Facility is unquestionably chemical processing to manufacture ethanol. EPA's credulous reliance on an unsubstantiated projected revenue stream as a basis for determining the applicability of the Prevention of Significant Deterioration of Air Quality (PSD) regulations is arbitrary and capricious and inconsistent with the intent of Congress in enacting the relevant provisions of the Clean Air Act. As EPA has not, and if New Source Review (NSR) is avoided, will not review final designs for the Proposed Facility, EPA is essentially relying on the Applicant's self-serving and erroneous assertions in allocating emissions from the gasifier/boiler. Irrespective of the novel technology, the boiler/gasifier emissions, largely, if not totally, result from the chemical processes necessary to produce ethanol and dispose of process residual. Furthermore, even taking the Applicant's emission control assumptions at face value, the Proposed Facility will be a major source of NO_x. Any regulatory validation of the Applicant's unsubstantiated representations as a means to avoid PSD/NSR creates a dangerous precedent and will be vulnerable on appeal.

1. The primary activity at the Proposed Facility is chemical processing.

If it looks like a duck, smells like a duck and quacks like a duck, it probably is a duck. The Proposed Facility transmogrified from a chemical processing plant into a waste collection and processing plant months after the initial application when the Applicant apparently realized that the true character of the plant would render it subject to PSD/NSR. Prior to learning of the thresholds

between listed and unlisted sources, the Applicant made numerous statements, both in its application and on the record that confirm the true nature of the Proposed Facility -- a chemical plant. For example, at the Planning Board hearing for the City of Middletown on March 3, 1999, David Webster, the Applicant's representative, stated the following: "This is a chemical process. We are a manufacturing facility. Methane will not be transported. We will only be transporting sulfuric acid and ethanol, the *only two main products*." (Emphasis added) (P. 16; City of Middletown Planning Board Minutes, March 3, 1999). The Applicant's original Title V permit application dated December 15, 1998, described its Proposed Facility with the SIC codes, 4953 for refuse systems and 2869 for industrial organic chemical operations. Only in its *revised* application, dated September 1, 1999, did the Applicant conveniently omit the SIC code 2869 for industrial organic chemical processes.¹

Despite Mr. Webster's clear statement to the contrary, the Applicant's lawyers would have EPA believe that the Proposed Facility does not fall under the applicable SIC code for chemical process plants "primarily since it is not manufacturing" chemicals.² Indeed, as the Proposed Facility is clearly involved in the manufacture of ethanol, the authority cited by Arnold & Porter stands for exactly the opposite proposition. While solvent recovery may not fall under the Major Group 28 as it is not "manufacturing products by predominantly chemical processes," there is no doubt that the Proposed Facility will engage in such manufacturing. One need not look beyond the name of the Proposed Facility, The Orange Recycling and Ethanol Production Facility. The ethanol production processes at the Proposed Facility fit squarely into major Group 28 - Chemicals and Allied Products Establishments, applicable to establishments manufacturing products by predominantly chemical processes.

¹Correspondence from the Applicant's counsel to EPA provides an explanation for its after-the-fact recharacterization of the Proposed Facility. In response to a request by EPA to further investigate options to reduce sulfur dioxide emissions so as to guarantee that emissions will not trigger PSD applicability regardless of the facility classification, the Applicant's representative responded,

Masada has explained to me, using confidential financial information, the economics of this project and why the capital investment and increases in operating costs that would be required to ensure such a high degree of emissions control would destroy its viability, and would thereby cause the loss of all the associated environmental benefits. The client has indicated to me, in no uncertain terms, that if these controls are required, the project will not be built.

Arnold & Porter (Martel) to EPA Region 2 (Riva), letter dated May 6, 1999; page 2.

² Arnold & Porter (Martel) to EPA Region 2 (Riva), letter dated May 6, 1999, page 3, citing EPA letter from Carla E. Pierce to Chun-chi S. Liu (Aug. 8, 1997).

SIC code classifications are not properly determined on the basis of the value associated with the process feed materials or raw ingredients. SIC classifications directly connote to either the final product(s) or the processes that are followed to achieve a desired result.³ To suggest that the Proposed Facility is not a chemical processing plant on the basis of its municipal solid waste (“MSW”) feedstock entirely overlooks the fact that the Applicant needs to use double the quantity of sludge, septage and other biosolids from the City of Middletown Wastewater Treatment Plant compared to MSW. Obviously, the need for such a large quantity of biosolids does not impact the primary purpose of the Proposed Facility any more than does the need for MSW as feedstock. The ingredients used in a chemical manufacturing operation cannot masquerade as the plant’s primary purpose. The Proposed Facility is a chemical facility and thus subject to the 100 ton/year threshold for PSD permitting review.

2) The pollution emitting functions of the source are more determinative of whether the Proposed Facility is within a listed source category than is the Applicant’s projected revenue stream.

Equally misleading is the Applicant’s attempt to use its projected revenue stream as the means for determining the “primary activity” at the Proposed Facility for purposes of PSD/NSR applicability. A determination of “primary activity” based on the Applicant’s supposititiously projected revenue stream from a never-before-commercialized technology is not only arbitrary, but also establishes a dangerous precedent as a means to circumvent PSD/NSR. Neither the Commenter, nor apparently the Applicant were able to find a previous instance in which EPA permitted a Proposed Facility to avoid PSD on the basis of such uncertain projections. At this point in time, the Applicant cannot even demonstrate that the process will work, even at a pilot plant stage, let alone what its revenue stream will be from the Proposed Facility. Despite the Applicant’s implication to the contrary, the Applicant

³ The 1987 SIC manual recognizes that in certain establishments, the traditional revenue-based “economic value” test “will not represent adequately the relative economic importance of each of the varied activities carried on at such establishments. In such cases, employment or payroll information should be used to determine the primary activity of the establishments.” (Page 16). As waste is the feedstock for ethanol production at the Proposed Facility, the waste handling and preparation activities should be considered part of the ethanol manufacturing process irrespective of the value that the Applicant unilaterally attributes to such activities.

has not contracted with one single municipality to dispose of municipal waste⁴ and is unable to predict with any degree of certainty what revenues it will derive. Conversely, it is clear that the centerpiece of the Applicant's proposal is to make commercial-grade ethanol.⁵ It is thoroughly contrary to the pollution-prevention objectives of the PSD program and entirely irrational for unsubstantiated revenue projections to determine whether or not a proposed facility is subject to PSD/NSR. The Applicant's current attempt to re-characterize its operation is akin to trying to make a sheep out of a wolf's clothing.

It is the pollutant emitting functions of a source, not its revenue producing functions that are the basis for determining PSD applicability. A source within one of the 28 listed categories may not circumvent the PSD program by highlighting services that do not significantly alter the pollutant emitting characteristics of the source, even if the such services are "projected" by the Applicant to provide more revenue than the pollutant emitting activities. Such a result is not consistent with Congressional intent that NSR be applied to the greatest extent possible.⁶ Congress, in its wisdom, did not consider revenue production when it listed industry sources that are prime for PSD applicability. The premise of the Clean Air Act is to reduce air emissions and achieve cleaner air -- there is no explicit or implicit exemption in this law based on revenue production function. The crucial factor in air pollution control is to address the pollution causing processes of a particular source.⁷ PSD determinations must focus on the Applicant's pollution causing activity, chemical

⁴ See, Arnold & Porter Letter; page 6 ("[t]he City of Middletown and Masada have orchestrated agreements with 23 municipalities to provide the municipalities with waste disposal service . . .") This statement is disingenuous at best. Although the City of Middletown Industrial Development Agency ("IDA") has signed 13 non-binding agreements with municipalities, the Applicant is not a signatory to any of those agreements. The legal efficacy and the IDA's right to lawfully assign such agreements to the Applicant is an open issue. In the interim, average tipping fees are on the decline while the future price for ethanol cannot be accurately predicted for many reasons. Accordingly, any estimate of projected revenues is unreliable and EPA's reliance on such projections is improper.

⁵ The City of Middletown is on the record that it is going to receive monies from the Applicant based on the latter's selling of ethanol and other by-products.

⁶ 45 Fed. Reg. 52,676 (Aug. 7, 1980).

⁷ *Alabama Power v. Costle*, 636 F. 2d 323, 398 (D.C. Circuit 1979); See also, PSD Applicability Determination for Golden Aluminum Company, at 2 (July 28, 1989)("it is only logical that Congress intended EPA to focus on those activities that would cause significant emissions of pollutants and hence, significant deterioration of air quality. Thus, EPA interprets Congressional intent in determining whether or not a source is within one of the 28 listed source categories, as based on the source's *pollutant emitting activity* rather than the source's finished product.")(emphasis added).

processing.

The Applicant's politically-oriented attempt to distinguish the Proposed Facility from the listed source category delineated by Congress, chemical process plants, is unavailing and meaningless. The Applicant's illusory basis for such distinction is primarily that the Proposed Facility will not be owned by DuPont, Union Carbide or Dow Chemical.⁸ Clearly, the owner of the facility has no bearing on its potential for causing significant deterioration of air quality. Nor, for that matter, are the unrelated alleged attributes of the chemical processes relevant to the significant air pollution impacts of the Proposed Facility. It is obvious based on a review of the legislative history that Congress compiled the list of 28 source categories based on information that the enumerated source categories, including chemical process plants, significantly contribute to ambient air concentrations of air contaminants. Congress clearly did not intend that tertiary considerations such as those advanced by the Applicant should distinguish the proposed ethanol production facility from the delineated source category of "chemical process plants."

Chemical process plants are known to emit substantial quantities of air contaminants. This is why they are included as one of the 28-listed source categories for which the PSD ceiling is 100 tons/year as opposed to the general ceiling of 250 tons/year. The appropriate inquiry is whether, in reasonably carrying out the purposes of PSD, the Proposed Facility should be reviewed as within a source category that Congress found to significantly contribute to ambient air concentrations of pollutants.⁹ Potential uncontrolled and fugitive emissions from the Proposed Facility are magnitudes greater than major source levels. According to the Applicant, it will need to install and operate on the facility's boilers extensive sulfur dioxide emission controls, including lime injection, a spray dry absorber/scrubber and baghouse that it projects will achieve a 96 percent sulfur dioxide removal efficiency. The Applicant claims that said emission control equipment will allow the Proposed Facility

⁸ Letter from Masada (Webster) to NYSDEC Region 3 (Nov. 2, 1999); page 3

⁹ The most basic purposes of the PSD regulations are to ensure that economic growth will occur in harmony with the preservation of existing air resources; and, 2) to protect the public health and welfare from any adverse effect which might occur at levels better than the national ambient air quality standards (NAAQS). The PSD regulations require that major new stationary sources of air pollution be carefully reviewed *prior to construction* to assure that the Best Available Control Technology will be designed in to the facility to minimize the project's emissions of air contaminants, to ensure compliance with the NAAQS and the applicable PSD air quality increments. 45 Fed. Reg. 52,676 (Aug. 7, 1980).

to barely stay below 250 tons per year of sulfur dioxide emissions.¹⁰ Further, the Applicant claims that in order to barely stay below 100 tons per year of NO_x, it will install low NO_x burners using a selective non-catalytic reactor (SNCR) which will achieve a control efficiency of 87.6 percent.¹¹ Without control equipment, the Proposed Facility would annually emit thousands of tons of each of NO_x and sulfur dioxide. There can be little doubt that with such high levels of uncontrolled emissions, the Proposed Facility is the type of source Congress intended to be covered by the PSD provisions of the Act. As set forth below, the primary pollutant emitting activity at the Proposed Facility is associated with the chemical processing activities designed to produce ethanol. Hence, the Proposed Facility is required to undergo PSD review prior to commencing construction.

3) Emissions from the gasifier/boiler are attributable to the Proposed Facility's chemical processing operations.

Despite the Applicant's best attempts to obfuscate the purpose of the gasifier/boiler, it is abundantly clear, and in fact, the Applicant previously admitted that the principal purpose of the supposed gasifier is to eliminate the residue from the Proposed Facility's chemical processes to avoid the need for landfill disposal.

Lignin is the remaining woody material that results from the hydrolysis of the cellulose into simple sugars. It is the gasification [combustion] of lignin, into which sulfur is bound during the hydrolysis process, that results in sulfur dioxide emissions. Considering the revenue streams for this facility, the *principal economic value of the lignin gasifier is to eliminate the lignin, thereby avoiding the need to pay for its landfill disposal.*¹²

In addition, the Applicant's permit application to NYSDEC, its project materials and numerous publications on the subject indicate that the lignin is a residual of chemical processing due to the simple fact that the lignin constituent of the waste feedstock does not hydrolyze during the acid

¹⁰ That the Applicant has not substantiated its ability to continuously achieve 96% removal efficiency strongly suggests that this is another baseless representation for the purpose of staying below the perceived PSD trigger of 250 tons. As set forth in our prior comments, the PAL methodology that the Applicant seeks to use is not authorized by the Clean Air Act and may not be used by a proposed major source to circumvent PSD.

¹¹ The Applicant does not indicate what SNCR will allow such a high control efficiency and whether such level has been achieved in any other operation that is similar to the Proposed Facility. Typically, NO_x reductions in an SNCR process are within a range of 30% to 40%.

¹² Arnold & Porter (Martel) to EPA Region 2 (Riva), letter dated May 6, 1999; page 5.

hydrolysis step in the ethanol production process.¹³ As the lignin is a residue of the chemical manufacturing process, the emissions resulting from its disposal are attributable to the Proposed Facility's chemical processing.

The Applicant, in its response to EPA dated November 2, 1999, contradicts its prior statements and, in fact, rewrites the laws of chemistry by asserting that, “[l]ignin is produced from the molecular conversion of processed MSW in the acid hydrolysis steps. Lignin is not produced in or from the ethanol production process. Lignin is not a waste.” Lignin, of course is not *produced* by the acid hydrolysis process; rather, it is residue of said process that, as a waste product, has no inherent value or use. The acid hydrolysis process serves only to separate the fermentable sugars out of the feedstock in order to produce ethanol. Obviously, lignin is not produced as a by-product. The “principal economic value of the gasifier [boiler] is to eliminate the lignin,” the unwanted waste of the ethanol production process so that it need not be land filled. Therefore, it is the ethanol production process that requires the gasifier/boiler to handle and dispose of lignin. Accordingly, the gasifier/boiler is an essential part of the overall ethanol production operation. The Applicant's revised and misstated interpretation of the process and its wastes can only be explained by the Applicant's fervent desire to prevent the allocation of the gasifier/boiler emissions to the chemical process in order to avoid PSD/NSR.

4) The Proposed Facility will be a major source for NOx even taking into account the limits and emission controls proposed by the Applicant.

As set forth in the analysis attached hereto as Exhibit A, the Proposed Facility will be a major source of NOx and therefore subject to nonattainment NSR.¹⁴ The Applicant's projection of NOx emissions based on a potential to emit (“PTE”) of 97.4 tons/year is delusive for a number of reasons:

- the Applicant's use of AP-42 emission factors to determine NOx emissions from a package

¹³ According to the U.S. Department of Energy, Office of Fuels Development, Biofuels Program, “[t]he biomass ethanol process creates a *residue* that contains mostly lignin which is very combustible.” (<http://www.ott.doe.gov/biofuels/partners.html>). See also, Golueke, *Biological Reclamation of Solid Wastes*, Rodale Press, 1977.

¹⁴ Appendix A provides data and calculations in support of the Commenter's conclusion and in rebuttal of the claims made by the Applicant.

natural gas-fueled boiler is erroneous since (1) it uses an emission factor for SO₂, and (2) it fails to include uncontrolled emission factors relevant to the Proposed Facility;

- the Applicant's assumption of a NO_x control efficiency of 87.61 by adding an SNCR to a caustic scrubber, limestone injection-spray dryer and baghouse combination (the combination does not remove any NO_x), has no legitimate basis (the Applicant does not identify the vendor which offers such guaranty nor does it offer any data from applicable operations elsewhere);
- the Applicant's reliance on "pilot plant studies" are incredulous and, at best, amateurish as every engineer knows that certain scale-up considerations (including appropriate factors of safety) must be included while designing a full-scale operation based on pilot plant data;
- the Applicant-supplied information on the use of natural gas to run the gasifier-boiler is essentially incomplete and questionable since it has not identified a single operation where lignin is being combusted (every combustion process is dependent on (1) combustion time, and (2) temperature, the latter is directly related to the type and amount of fuel used); and,
- Malcolm Pirnie's analysis of a lignin residue sample is totally useless since it is not representative of the current project description.

In view of the above, the Applicant's claim that the PTE for NO_x at 97.4 tons/year is representative is nothing but a wishful number, devoid of any rational basis or credible support. Since this emission rate is too close to the 100 tons/year limit, it is more than likely that this limit will be exceeded.¹⁵ As a result, for the purpose of NSR within the Ozone Transport Region, the Proposed Facility should be treated and reviewed as a major source.

¹⁵ In our prior comments, we asserted that with such a small margin of error below major source levels, the Applicant is required to utilize more reliable emission estimating methods. Comments dated December 29, 1999, pg 13. See also, *Introduction to Stationary Point Source Emission Inventory Development*, STAPPA, ALAPCO, EPA Emission Inventory Improvement Program, July 1997, Chapter 4, "Emission Estimation Procedures."

August 23, 2000

VIA: Facsimile & Overnight Mail

The Honorable Carol M. Browner
Administrator
U S Environmental Protection Agency
Ariel Rios Building
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460

Re: Petition to Object to Title V Facility Permit Issued to the Proposed Orange Recycling and Ethanol Production Facility in the City of Middletown, New York

New York State Department of Environmental Conservation Permit ID: 3-3309-00101/0003

Dear Administrator Browner:

This letter is to clarify the numbering of certain exhibits attached to the petition (the "Petition") dated August 18, 2000, submitted on behalf of Campbell Plaza, Kathleen House and Sue Cohen in their individual and representative capacities (the "Petitioners") with respect to the above-referenced Title V facility permit. In the binder entitled "Exhibits 1 through 26," the document delineated in the Petition as Exhibit 13 described as "EPA's October 20, 1999 Comment letter" is instead reproduced in full at the end of Exhibit 21, described as the "1999 Spectra Comments." Thus, the sequence of the exhibits as delineated in the Petition is hereby revised as follows:

- Exhibit 13 - A copy of the letter dated October 22, 1999, from EPA Region 2 (Kathleen C. Callahan) to Laura Collard Cohen delineated at page 8 of the Petition as Exhibit 14.
- Exhibit 14 - A copy the letter dated October 20, 1999, from Senator Richard Shelby to EPA Administrator, Carol Browner delineated at page 8 of the Petition as Exhibit 15.
- Exhibit 15 - A copy of the letter dated October 22, 1999 from Middletown Mayor Joseph DeStefano to Region 2 Administrator, Jeanne M. Fox delineated at page 8 of the Petition as Exhibit 16.

- Exhibit 16 - Copies of electronic correspondence among EPA staff delineated at page 8 of the Petition as Exhibit 17.
- Exhibit 17 - A copy of the letter dated November 2, 1999 with attachment from Masada (David Webster) to NYSDEC (Robert J. Stanton) delineated at page 9 of the Petition as Exhibit 18.
- Exhibit 18 - A copy of the letter dated December 6, 1999 from EPA Region 2 (Kathleen Callahan) to NYSDEC (Robert K. Warland) delineated at page 10 of the Petition as Exhibit 19.
- Exhibit 19 - A copy of the letter dated December 22, 1999 from EPA Region 2 (Kathleen Callahan) to Middletown Mayor Joseph M. DeStefano delineated at page 11 of the Petition as Exhibit 20.
- Exhibit 20 - A copy of the transcript of the NYSDEC legislative hearing held on December 29, 1999 delineated at page 11 of the Petition as Exhibit 21.
- Exhibit 21 - The 1999 Spectra Comments submitted December 29, 1999 on behalf of Petitioners (with a complete copy of EPA's October 20, 1999 Comment letter attached) delineated at page 11 of the Petition as Exhibit 22.
- Exhibit 22 - A copy of the letter dated March 29, 2000 from EPA Region 2 (Steven Riva) to NYSDEC (Robert Stanton) delineated at page 12 of the Petition as Exhibit 23.
- Exhibit 23 - A copy of the 2000 Supplemental Comments dated March 31, 2000 submitted by Spectra Environmental Group on behalf of Petitioners delineated at page 13 of the Petition as Exhibit 24.
- Exhibit 24 - A copy of the NYSDEC Responsiveness Summary dated May 4, 2000 delineated at page 14 of the Petition as Exhibit 25.
- Exhibit 25 - A copy of the letter dated August 9, 2000 from the Birmingham, Alabama Office of the City Council (James Blake, M.D.) to Masada (Daryl Harms) delineated at page 14 of the Petition as Exhibit 26.

All exhibits not listed above remain as set forth in the Petition.

We apologize for any inconvenience this may have caused. Please consider the aforementioned changes and this letter to be part of the Petition dated August 18, 2000

filed on behalf of Petitioners.

Should you have any questions, please feel free to call me.

Respectfully submitted,

SPECTRA ENVIRONMENTAL GROUP, INC.

Robert C. LaFleur
President

cc: John Cahill, Esq., Commissioner
NYS Department of Environmental Conservation

David J. Webster, Project Manager
Pencor Masada OxyNol LLC

Jeanne M. Fox, Regional Administrator
United States Environmental Protection Agency, Region 2.