UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
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NEW YORK, NY 10007-1866

MAR 30 2010

Ms. Kathleen Antoine, Environmental Director
HOVENSA, L.L.C.
1 Estate Hope
Christiansted, U.S. Virgin Islands 00820-5652

Re: HOVENSA Gas Turbine Nitrogen Oxides (GT NOx) Prevention of Significant Deterioration (PSD) Permit Application- Emission Calculation Clarification

Dear Ms. Antoine:

The U.S. Environmental Protection Agency (EPA) has reviewed HOVENSA's GT NOx PSD application, with particular focus on HOVENSA's conclusion that PSD will not apply to NOx. EPA does not agree with HOVENSA's conclusion. EPA's Region 2 Office discussed the policy underlying this PSD applicability issue with EPA's Office of General Counsel, the Office of Air Quality Planning and Standards and the Office of Enforcement and Compliance Assurance to develop this response. EPA's rationale for this response is provided below.

Project Overview:

On August 12, 2009, HOVENSA submitted an application for a PSD permit to construct the GT NOx Reduction Project ("Project") at its refinery at St. Croix, U.S. Virgin Islands. As a part of the Project, HOVENSA proposed to retrofit and refurbish five GTs, modify an additional GT to allow it to fire refinery fuel gas, and retire three GTs. The PSD applicability analysis provided in this application concludes that the Project will not result in any significant increase in emission of NOx; therefore, a PSD review is not required for NOx. In its analysis, which resulted in no significant emissions increase of NOx, HOVENSA combined all NOx emissions decreases from retrofitting five GTs with all NOx emissions increases from a GT modification and from other non-modified units that are a part of the Project. The procedure for determining whether a project results in a significant emissions increase for a pollutant, also known as Step 1 of the PSD applicability determination process, requires that only emission increases for a pollutant resulting from the units in a Project be added to determine if the resulting increase is significant. However, HOVENSA applied what it understood to be a "sum of the difference" approach to each affected emission unit. HOVENSA's approach included both emissions decreases and increases resulting from the units in this Project. When emissions increases and decreases of a pollutant resulting from a project are considered in Step 1 of the NSR applicability analysis, it is known as "project netting."

EPA informed HOVENSA during the phone conversations on December 17 and 18, 2009 and January 4, 2010, that the use of project netting in a PSD applicability analysis is not allowed by EPA policy or rule. On January 14, 2010, HOVENSA sent a letter and attached a "white paper" in which HOVENSA stated that project netting is allowed to determine PSD applicability pursuant to the EPA's 2002 NSR Reform Rule[1] and subsequent PSD determinations. HOVENSA provided its reasons as to why and how it concluded that the Project would not result in a "significant emission increase" of a NSR regulated pollutant (NOx). HOVENSA indicated that it applied a "sum of emissions differences" approach, consistent with Step 1 of the PSD applicability analyses required under 40 CFR 52.21(a)(2)(iv), as well as EPA's 2002 NSR Reform Rule and subsequent EPA guidance. The white paper specifically distinguishes between language in 40 CFR 52.21(a)(2)(iv)(*c*) and 40 CFR 52.21(a)(2)(iv)(*f*), arguing that the proposed Project can use project netting because it falls under the former regulatory provision. The white paper also notes that the subsequent EPA rules and a written determination by EPA Region 9 support the use of project netting for HOVENSA's Project.

EPA's Rationale:

EPA considered the positions articulated in HOVENSA's letter and does not agree that project netting is allowed. As discussed below, EPA's conclusion is based on the following: 1) an analysis of the preamble and response-to-comments to the 2002 NSR Reform rule; 2) the regulatory language at 40 CFR 52.21(a)(2); 3) the replacement unit provision of the 2002 NSR Reform Rule; and 4) the preamble of the Final NSR Rule on Aggregation.[2]

Preamble and Response-to-Comments Document for the 2002 NSR Reform Rule

EPA reviewed the record for the 2002 NSR Reform rulemaking, including the preamble and the response-to-comment document, to obtain an understanding of EPA's intent in adopting 40 CFR 52.21(a)(2)(iv)(*c*).[3] Neither the rule, the preamble, nor the response-to-comment document contained any discussion of a decision to adopt project netting for projects that modify existing units. To the contrary, the limited discussion of the netting procedures indicates that it would continue to be a two-step process, wherein the first step would involve totaling only the emissions increases at units affected by the project and

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[1] *See* Prevention of Significant Deterioration and Nonattainment New Source Review: Baseline Emissions Determination, Actual-to-Future Actual Methodology, Plantwide Applicability Limitations, Clean Units, Pollution Control Projects- Final Rule- December 31, 2002, Federal Register, Vol. 67, No. 251, p. 80186.

[2] *See* Prevention of Significant Deterioration and Nonattainment New Source Review: Aggregation and Project Netting- Final Action- January 15, 2009, Federal Register, Vol. 74, No. 10, p. 2376.

[3] *See* 67 FR 80186, 80275 (Dec. 31, 2002); Technical Support Document for the Prevention of Significant Deterioration and Nonattainment Area New Source Review Regulations (November 2002), Docket No. A-90-37, available at http://www.epa.gov/ttn/nsr/rule_dev.html.

the second step would allow for both emissions increases and decreases to be considered that are contemporaneous and creditable. In the preamble's discussion of "reasonable possibility" recordkeeping, EPA noted the need to keep records if a source's emission projection shows a significant increase. (see p.80197, 2002 NSR Reform: "[record] a description of the project; an identification of emissions units whose emissions could increase as a result of the project; the baseline actual emissions for each emissions unit; and your projected actual emissions"). It further explained that "if your project (emission) increase is significant, you must record your netting calculations if you use emissions reductions elsewhere at your major stationary source to conclude that the project is not a major modification." Id. This preamble discussion confirms that the process requires identifying only units that "could increase as a result of the project" in the first step, as opposed to allowing consideration of both decreases and increases in the first step. Furthermore, in the rulemaking EPA stated its intent to limit the changes to netting to only those matters specifically discussed in the rulemaking notices. (see pp.80203-04, 2002 NSR Reform).

Language at 40 CFR 52.21(a)(2)(iv)

In the absence of preamble language discussing an intent to change the historic two step NSR applicability test, EPA believes the regulatory language in 40 CFR 52.21(a)(2)(iv)(*c*) should be interpreted consistently with EPA's traditional emissions test, to the extent that the regulation is susceptible to such an interpretation. As discussed above, to support HOVENSA's view that project netting is authorized by the 2002 NSR Reform Rule, HOVENSA relied on the contrast between the emissions test for existing units found in section 52.21(a)(2)(iv)(*c*) (i.e., "sum of the difference") and the emissions test for "hybrid" units found in section 52.21(a)(2)(iv)(*f*) (i.e., "sum of the emission increases"). [See letter dated Jan. 14, 2010, from Kathleen C. Antoine, HOVENSA, L.L.C. to Steven C. Riva, USEPA Region 2]. HOVENSA did not provide any rationale as to why a project with existing units should be allowed to use project netting while a project with hybrid units should not be allowed to do so. After considering HOVENSA's argument and the relevant language in 40 CFR 52.21(a)(2)(iv), EPA does not believe the difference in regulatory language for existing units and for units subject to the hybrid test compels the conclusion that HOVENSA reached in the letter..

Initially, EPA notes that the "sum of the difference" language is also used with respect to projects only involving new units. See 40 CFR 52.21(a)(2)(iv)(*d*). These new units have a baseline of zero tons per year for purposes of calculating an emission increase, 40 CFR 52.21(b)(48)(iii), and have future emissions deemed to be equal to their potential to emit ("PTE") for purposes of calculating a significant emission increase. Here, "sum of the difference" can only refer to the PTE-less-baseline emissions calculation, since there cannot be a reduction of emissions at a unit if the baseline is zero tons per year. Thus, "sum of the difference" here only refers to summing positive numbers (i.e., emissions increases). Similarly, EPA contends that the parallel language in 40 CFR 52.21(a)(2)(iv)(*c*) also is susceptible to this interpretation.

The alternative language to 40 CFR 52.21(a)(2)(iv)(*c*) and (*d*) is found in the emissions test for projects involving hybrid, or multiple, types of units. The hybrid test sets a rule for adding emission increases calculated in different ways: existing units have their emissions increase calculated by comparing the difference between projected actual emissions and their baseline, new units have their increase calculated based on PTE, and Clean Units (had that NSR provision remained in effect)[4] have their increase established at zero tons per year based on an allowable-to-allowable test. Clean Units, in particular, did not have an applicability test in section 52.21(a)(2)(iv)(*e*) expressed in terms of "sum of the difference." The language difference between the hybrid test and the existing unit test does not imply EPA's intent to allow project netting in one context and to disallow it in the other.

Replacement Unit Provision of the 2002 NSR Reform Rule

In its letter, HOVENSA also relies upon the inclusion of a replacement unit provision in the 2002 NSR Reform Rule. HOVENSA argues that a replacement unit is an example of adding the emissions decrease associated with the shutdown of an existing unit with the increase associated with the building of a new unit. However, EPA theory supporting the replacement unit provision change is different from what HOVENSA suggests. EPA justified the replacement rule by reasoning that "a source replacing a unit should be able to adequately project and track emissions for the replacement unit based, in part, on the operating history of the replaced unit." See 67 FR 80194. In the November 7, 2003 final notice of reconsideration[5], EPA continued to justify the replacement provision on the basis that the replacement unit is the same as the existing shutdown unit and, therefore, it retains the shutdown unit's baseline emissions when calculating the emission increases. Nowhere in the relevant Federal Register notices is project netting expressed as the basis for the replacement unit provision. EPA would not have needed to provide a special provision and unique rationale for the replacement unit rule if EPA had intended to allow project netting under the 2002 NSR Reform Rule.

2009 Final NSR Rule on Aggregation

HOVENSA's letter cites to EPA's 2006 proposal[6] as consistent with HOVENSA's interpretation that the 2002 NSR Reform Rule allows project netting. As stated explicitly in the final rule on NSR Aggregation and specifically acknowledged in HOVENSA's letter, "nothing in the September 2006 proposed amendments on project netting should be taken as establishing any change in the Agency's interpretation of its current rules, nor

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[4] The Clean Unit provision of the 2002 NSR Reform Rules was invalidated in *State of New York v. EPA*, 413 F. 3d 3 (D.C. Cir. 2005).

[5] See Prevention of Significant Deterioration and Nonattainment Review: Reconsideration- Notice of final action on reconsideration; amendment to final rule- November 7, 2003, Federal Register, Vol. 68, No. 216, p.63021.

[6] See Prevention of Significant Deterioration and Nonattainment New Source Review: Debottlenecking, Aggregation, and Project Netting- Proposed Rule- Federal Register, September 14, 2006, Vol. 71, No. 178, p.54235.

should any of the statements in the 2006 preamble characterizing our current rules be cited as demonstrating the Agency's interpretation of our current rules." *See* 74 FR 2376, 2381. Therefore, notwithstanding any new or changed interpretations described in the 2006 proposal[7], EPA explicitly said that the 2006 interpretation could not be relied upon.

Additionally, in the 2009 final rule on NSR Aggregation, EPA explains the two-step process for determining whether a modification is subject to major NSR. Within this explanation, EPA clarifies that, in the first step of the analysis, "[t]he emission increases of the nominally-separate changes are combined for purposes of determining whether a significant emissions increase has occurred from the project." See 74 FR at 2377. This plain expression of EPA's understanding of the NSR applicability test -- that the first step considers only emissions increases -- makes no mention of a limited applicability of this test (i.e., to hybrid units only), nor to another test that considers both emissions increases and decreases in the initial step of evaluating NSR applicability. Thus, this clearly articulated preamble language from a finalized Agency action further demonstrates that project netting is not permissible under the current NSR rules.

HOVENSA also cited an EPA Region 9 letter[8] which appears to suggest that project netting is allowed in Step 1. It should be noted that Region 9's focus while doing the PSD applicability was on the accuracy of baseline emissions from the 19 interrelated emission units that make up the project and, since the project in question was likely to net out if it included contemporaneous emissions changes in Step 2- due to the significant emission reductions from one piece of equipment, the issue of project netting was not the focus of evaluation. EPA Region 9 did not intend to allow project netting in Step 1 of the analysis, it did not claim it was allowing project netting, nor did it provide any rationale for allowing project netting.

Conclusion:

For all the reasons described above, project netting is not allowed under EPA's current rules and, therefore, HOVENSA's PSD applicability analysis for the proposed Project may consider only emissions increases in Step 1 of the NSR applicability. Additionally, HOVENSA will need to revise and resubmit its analysis and, if there are units subject to PSD, submit BACT and Air Quality related information necessary for the GT NOx Project in order for EPA to proceed with its review of this application. Please note that this letter does not constitute a final agency action and we will continue to review the applicability of PSD to HOVENSA's Project when we receive additional information.

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[7] We note that there were a number of public comments refuting any possible suggestion by EPA in the 2006 proposal that the 2002 NSR Reform Rule allowed for project netting. *See, for example*, Comments of Natural Resource Defense Council on EPA's 'Prevention of Significant Deterioration (PSD) and Nonattainment New Source Review (NSR): Debottlenecking, Aggregation, and Project Netting,' Electronic Docket ID No. EPA-HQ-OAR-2003-0064 (November 13, 2006),

[8] September 8, 2009, EPA Region 9 letter to Chevron Products Company, El Segundo, CA

If you have any questions, please call Steven C. Riva at (212) 637-4074 or have your staff contact Umesh Dholakia at (212) 637-4023.

Sincerely,

Joann Brennan McKee

for Barbara A. Finazzo, Director
Division of Environmental Planning and Protection

cc: Dr. Nadine Noorhasan, VIDPNR
Angela Arnold, VIDPNR
Catherine Elizee, HOVENSA
Phil May, RTP Environmental Associates

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JUN 07 2010

Ms. Kathleen Antoine, Environmental Director
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1 Estate Hope
Christiansted, U.S. Virgin Islands 00820-5652

Re: Emission Decreases Integral to Projects

Dear Ms. Antoine:

The U.S. Environmental Protection Agency's Region 2 Office (EPA) is in receipt of HOVENSA's April 23, 2010, letter regarding a potential project involving its Coker and combustion devices. The letter asks EPA whether constructing a Coker or increasing its rate of operation would result in a significant emissions increase if the increased gas make from the Coker is routed to other combustion devices. HOVENSA expects that, due to the increased supply of gas make, the fuel oil use at the combustion devices will decrease thereby reducing the emissions from those combustion devices. According to HOVENSA, due to its location, the increased Coker gas can not be shipped to other sites and must be used/combusted on site. HOVENSA, therefore, argues that the gas routing to other combustion devices on site, which will result in emission decreases at those combustion devices, is integral to the Coker modification and opines that such decreases can therefore be credited in Step 1 of the Prevention of Significant Deterioration (PSD) applicability analysis.

Based on the review of the information HOVENSA provided, it does not appear to EPA that Coker gas routing to other combustion devices on site is integral to the Coker project and, as a result, any resulting emission decreases at these devices should not be creditable in Step 1 of the PSD applicability analysis. Rather, our understanding of the project leads us to believe that these emissions decreases should be accounted for while performing the analysis of contemporaneous emissions increases and decreases under Step 2 of the PSD applicability review. EPA's rationale for this determination is provided below.

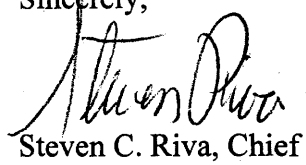
HOVENSA, cites to a variety of sources, including the PSD regulations, a number of EPA memoranda, and the 1990 NSR Workshop Manual, to support its view that emissions decreases "integral to the project" should be counted in Step 1. EPA, by this letter, is not opining on the merits of HOVENSA's analysis regarding the underlying basis for an "integral to the project" approach. However, whether or not we agree with HOVENSA's general arguments for the "integral to the project" approach, we do not see how the facts of this particular project square with such an approach. In an August 22,

2007 letter from Ms. Julie Domike, written on behalf of HOVENSA, to Mr. Joseph Siegel of EPA's Office of Regional Counsel, Ms. Domike refers to a November 26, 1997 letter from EPA Region 6's Ms. Jole Luehrs to Mr. Michael Carbon of Radian Corporation as support for HOVENSA's position. However, this letter underscores our concern that any decrease in emissions from burning fuel gas at other combustion devises are not "integral to the project" at the Coker. In the Region 6 letter, a heat recovery process was not considered an integral part of a project where "the project could operate at any time without the heat recovery process operating." Similarly, while HOVENSA's Coker-produced fuel gas, when combusted in boilers, turbines and heaters, will likely result in lower fuel oil use in those units, those combustion units cannot be classified as integral to the Coker's operation. The Coker can operate without those combustion devices if, for example, the gas is piped to an outside entity. HOVENSA also could potentially add new combustion equipment to handle this fuel gas which would add to the overall emissions. The Coker and combustion devices are separate and distinct emission units and each can operate without the other. Therefore, we do not see a basis for concluding that combusting Coker-produced gas at various combustion devices would be "integral" to the Coker project.

However, EPA notes that any enforceable emission reductions realized by a reduction in fuel oil use in those combustion devices can be counted as decreases when HOVENSA undergoes source-wide contemporaneous netting, during Step 2 of the PSD applicability process. This is consistent with the Region 6 letter cited by HOVENSA.

Based on the rationale described above, EPA does not see a basis for HOVENSA to take credit for the emission reductions resulting from the reduced fuel oil used in the combustion devices in Step 1. However, as stated above, such emission reductions may be creditable as contemporaneous decreases in the netting analysis performed in Step 2. Please note that this letter does not constitute a final agency action and we will continue to review the applicability of PSD to HOVENSA's Project when we receive additional information. If you have any questions, please call me or contact Umesh Dholakia at (212) 637-4023.

Sincerely,



Steven C. Riva, Chief
Permitting Section