ATTACHMENT-3

NEW JERSEY EMISSION OFFSET RULE FORMER SIP PROVISIONS

BACKGROUND:

On February 19, 1993, New Jersey adopted revisions to N.J.A.C. 7:27-18 (Emission Offset Rule), which were submitted to EPA as a revisions to New Jersey's State Implementation Plan (SIP) for approval. In the November 10, 1994 Federal Register (copy enclosed), EPA proposed a limited approval of the New Jersey's SIP revision and asked New Jersey to address the following seven elements:

1. Revise offset provisions such that permit changes related to offsets in effect by the time of permit issuance;

2. Supply information from non-attainment NSR permits to EPA's control technology clearinghouse;

3. Revise the definition of "stationary source" to exclude "non-road engines";

4. Add provisions for modifications in serious and severe ozone non-attainment areas;

5. Provide a net air quality benefit test;

6. Provide a methodology for calculating net emissions increase that adheres to EPA guidance and policy (the actual to potential test at that time), and

7. Provide definitions for "initiation of construction" and "initiation of operation".

New Jersey revised its regulations to address items 1, 2, 5 and 7 on an expedited schedule and requested guidance from EPA on issues associated with items 3, 4 and 6 above. The Department and EPA agreed that the deficiencies would be addressed in Phase-1 and Phase-2 modifications. In the July 25, 1996 Federal Register (copy enclosed), EPA finalized its limited approval.

To address items No. 1, 2, 5, and 7, New Jersey proposed revisions to the Emission Offset Rule in the February 5, 1996 New Jersey Register (NJR). A public hearing was held on February 29, 1996. The Department accepted written comments through March 8, 1996. The rule amendments were adopted on September 24, 1996, and published in the November 4, 1996 NJR. A SIP revision package, that addressed items No. 1, 2, 5, and 7, was submitted with a letter dated January 31, 1997, from former Commissioner Shinn to EPA (copy enclosed).

Because EPA was working on Federal New Source Review (NSR) amendments at that time, New Jersey, in its January 31, 1997 SIP revision letter, committed to address the remaining three elements (Items No. 3, 4 and 6), in a future rulemaking to reflect anticipated NSR amendments by EPA. EPA published its first NSR reform rules in the December 31, 2002 Federal Register (EPA NSR Reform I). These were appealed, and, on June 24, 2005, the U.S. Court of Appeals for the D.C. Circuit vacated 2 parts of the 5 part rule and remanded portions of the remaining rule. EPA has not adopted revisions to address the remand. Also, EPA has not completed its NSR reform rules. Its second rule on replacement was stayed by the D.C. Circuit. Its third rule on one-hour applicability was just proposed, and additional rule making is expected in early 2006. Despite the incompleteness of EPA NSR reforms, we evaluated items 3, 4 and 6 and found them to be moot with respect to stringency.

STRINGENCY OF NEW JERSEY'S EXISTING EMISSION OFFSET RULE WITH RESPECT TO ITEMS No. 3, 4 and 6:

New Jersey reviewed the remaining three elements (Items No. 3, 4 and 6), in the context of the December 31, 2002 NSR reform rules, as well as court decisions. The provisions of the New Jersey's existing Emission Offset Rules are more stringent than the December 31, 2002 NSR rule and, therefore, satisfy the "at least as stringent as" test for NSR reform rules that are not identical to EPA rules.

Item No. 3: Revise the definition of "stationary source" to exclude the new category of "non-road engines":

In the July 25, 1996 FR, EPA asked New Jersey to exclude "non-road engines" from the definition of "stationary source". Since New Jersey's current Emission Offset Rule does not explicitly exclude "non-road engines" from the definitions of "facility" and "source operation" set forth in N.J.A.C. 7:27-18.1, it appears to be more stringent than the December 31, 2002 NSR rule. Being more inclusive on what is subject to NSR cannot be less stringent. In practice, we believe that New Jersey treats "non-road engines" in the same manner as EPA for the purpose of NSR applicability and that an explicit exemption in the rule is not necessary.

Item No. 4: Add provisions for modifications in serious and severe ozone non-attainment areas:

In the July 25, 1996 FR, EPA asked New Jersey to include modification provisions for serious and severe areas, including an aggregation of past net increases over a 5-year period, even when the proposed increase itself is below the de minimis level. This is no longer relevant for equivalency because New Jersey has no serious or severe areas. New Jersey is now designated moderate for ozone. Also, even if New Jersey had serious or severe areas, its rules are more stringent than the EPA rules as discussed below:

Furthermore, EPA's NSR Reform Rule I no longer requires the accumulation of minor emission increases. New Jersey's Emission Offset Rules does accumulate minor emission increases. See the discussion of accumulation in Appendix 1.

New Jersey's current Emission Offset Rule specifies "major source" triggers, "modification" triggers and the minimum "offset ratios" in N.J.A.C. 7:27-18.2(a)1, N.J.A.C. 7:27-18.7, and N.J.A.C. 7:27-18.5, respectively. These triggers and offset ratios are more stringent than the federal base program as discussed below.

The ozone non-attainment area classification and associated offset requirements specified in Section 181 of the Clean Air Act are provided in the following table:

EPA REQUIRMENT

	"Major source" Thresholds for ozone [Major Source Trigger Potential to Emit] (Tons/Year)	**"Significant net emission increase" for ozone [Modification Trigger] (Tons/Year)**	**Offset Ratio**
Marginal	100	40	1:1 : 1
Moderate	100	40	1.15 : 1
Serious	50	25	1.2 : 1
Severe	25	25	1.3 : 1
Extreme	10	0	1.5 : 1

Though New Jersey contained "marginal", "moderate" and "severe" ozone non-attainment areas, it has elected to treat the entire State as a "severe" non-attainment area for purposes of non-attainment review in order to address regional transport of ozone precursors. New Jersey has no "extreme" areas. Consequently, New Jersey has adopted uniform "major source" and "modification" thresholds, and offset ratio provisions for the entire State based on EPA's requirements for severe ozone areas as shown in the following table:

NEW JERSEY REQUIRMENT

	"Major source" Thresholds for ozone [Major Source Trigger Potential to Emit] (Tons/Year)	**"Significant net emission increase" for ozone [Modification Trigger] (Tons/Year)**	**Offset Ratio**
NOx & VOC emissions increases anywhere in New Jersey	25	25	1:3:1

New Jersey's "major source" triggers, "modification" triggers and the minimum "offset ratios" are more stringent than those required under NSR reform rules for the "marginal" and "moderate" areas. New Jersey's major source trigger is also more stringent than EPA's trigger for serious areas. In addition, New Jersey has adopted offset ratios for all pollutants (except lead) which increase with distance from the source. This approach is more stringent than that required under EPA's base program.

N.J.A.C 7:27-18.7, determination of a net emission increase or a significant net emission increase, establishes the following formula:

NI = IP + INP + IF + IA - DO - DC

Where:

NT = The net emission increase at a facility;

IP = Any increase(s) in the allowable emissions of the air contaminant which occurred during the contemporaneous period and which were authorized by permits issued by the Department;

INP = Any increase(s) in the allowable emissions of the air contaminant which occurred during the contemporaneous period and which came from any equipment or control apparatus for which no permit was in effect at the time of the increase;

IF = Any increase in fugitive emissions of the air contaminant from the facility during the contemporaneous period;

IA = Any proposed increase in allowable emissions of the air contaminant from the newly constructed, reconstructed, or modified equipment or control apparatus which is the subject of the permit application;

DO = Any increase(s) in the allowable emissions of the air contaminant which occurred during the contemporaneous period, if emission offsets were secured for these increases from the facility or from another facility; and

DC = The sum of all creditable emission reductions at the facility during the contemporaneous period, not including any creditable emissions reductions previously used as emission offsets at the facility or any other facility.

Contemporaneous period is defined as "in respect to newly constructed, reconstructed, or modified equipment, or a change in method of operation, occurring within a time period which includes:

1. The five years prior to the commencement of construction; and
2. The period between the commencement of the construction and the initiation of operation of the newly constructed, reconstructed, or modified equipment."

The terms IP, INP, IF and IA require an aggregation of past net increases over a 5-year period, even when the proposed increase itself is below the de minimis level. This aggregation provision is as stringent as EPA's prior rules and more stringent than EPA's current rules.

Item No. 6: Provide a methodology for calculating net emissions increase that adheres to EPA guidance and policy (the actual to potential test at the time of the request):

In the July 25, 1996 FR, EPA asked New Jersey to revise the provision in the Emission Offset Rule for calculating net emission increase. In essence, EPA requested that New Jersey use an ``actual to potential" test, instead of a ``potential to potential" test.

N.J.A.C. 7:27-18.7 specifies a formula to calculate net emission increase at the facility based on "potential to potential" emission increases and actual emissions reductions. N.J.A.C. 7:27-18.1 defines “creditable emission reduction”. The formula allows “creditable emission reduction” based on a decrease in actual emissions. See term DC in the formula.

Under the EPA’s NSR rules (40 CFR 51.165(a)(2)(ii)(C) and 52.21(a)(2)(C)), a source uses "actual-to-projected-actual" emissions calculation methodology and predicts whether a physical or operational change will result in a significant emission increase - thereby triggering NSR applicability – by comparing its baseline emissions to its expected post change emissions. Pursuant to 40 CFR 51.165(a)(1)(xxviii)(B)(3) and 52.21(b)(41)(ii)(C), in calculating post change emissions, sources may ignore *“that portion of the unit’s emissions following the project that an existing unit could have accommodated during the consecutive 24-month period used to establish the baseline actual emissions…and that are also unrelated to the particular project, including any increased utilization due to product demand growth.”* Before the EPA’s NSR reform rules, the "actual-to-projected-actual” methodology and demand growth exclusion could be used only by electric utilities, and only if they recorded their projection and tracked their emissions to confirm the validity of the projection. The NSR reform rule extended the methodology and exclusion to all sources. The demand growth exclusion makes the EPA applicability test equivalent to a potential emission to actual emission test (a “potential to actual” test). Also, EPA’s rule does not make the projected emissions levels enforceable limits on the source, and does not require adequate record keeping and reporting after the project to assure the project did not result in significant emission increases. The lack of recordkeeping and reporting requirements were the subject of the court-imposed remand to EPA. EPA has yet to revise its rule in this regard.

Since the New Jersey NSR applicability test is more stringent than the federal “potential to actual” test, this item is moot. Please see Attachment-2 for a mathematical demonstration of this.