

FINAL SUBMITTAL

AMENDMENTS TO
DELAWARE 2002 RATE-OF-PROGRESS PLAN
FOR KENT AND NEW CASTLE COUNTIES

For Demonstrating
Progress Toward Attainment of the National Ambient Air
Quality Standard for Ground-Level Ozone

Submitted To
U.S. Environmental Protection Agency

By
Delaware Department of Natural Resources and
Environmental Control
Dover, Delaware



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1. *Federal Clean Air Act*, 42 U.S.C.A. '7401 et seq., as amended by the Clean Air Act Amendments of 1990, P.L. 101-549, November 15, 1990.
2. *The Delaware 2002 Rate-of-Progress Plan for Kent and New Castle Counties*, Department of Natural Resources and Environmental Control, Dover, Delaware, February 2000.
3. *Delaware Regulations Governing the Control of Air Pollution, Regulation 24 Section 28*, Division of Air and Waste Management, Delaware Department of Natural Resources and Environmental Control, Dover, Delaware, Updated to March 8, 1995.
4. *Delaware Regulations Governing the Control of Air Pollution, Regulation 37: NOx Budget Program*, Delaware Department of Natural Resources and Environmental Control, Dover, Delaware, December 1997.

1. Introduction

Under the Clean Air Act Amendments of 1990 (CAAA, Reference 1), Kent and New Castle Counties in Delaware are classified as severe nonattainment areas with respect to the 1-hour National Ambient Air Quality Standard (NAAQS) of the ground-level ozone. The CAAA requires Delaware to submit to the US Environmental Protection Agency (EPA) a State Implementation Plan (SIP) for every three years after 1996 to demonstrate how to achieve adequate rate-of-progress in reducing emissions of volatile organic compounds (VOC) and oxides of nitrogen (NO_x), which are major precursors to form the ground-level ozone. Thus, these SIPs are termed as Rate-of-Progress Plans (RPPs). Delaware's 2002 Rate-of-Progress Plan, which covers the three-year period from 2000 to 2002, was submitted to EPA in February 2000 (Reference 2). The plan will be referred to hereafter as the 2002 Rate-of-Progress Plan or simply the 2002 RPP.

The document proposed herein is to amend Delaware's 2002 RPP according to a recent settlement agreement between Delaware Department of Natural Resources and Environmental Control (DNREC) and Motiva Enterprises LLC (Attachment 1). According to this agreement, DNREC decides to remove 180 tons per year (TPY) of VOC emission reductions from Motiva's Wastewater Treatment Plant. The amendments proposed herein include: (1) reevaluating VOC emission reductions from Motiva's wastewater treatment plant, (2) reevaluating VOC and NO_x emission targets and required reductions in the 2002 RPP, (3) amending the contingency plan of the 2002 RPP, and (4) amending Appendix N of the 2002 RPP.

The agency with direct responsibility for preparing and submitting this document is the Delaware Department of Natural Resources and Environmental Control (DNREC), Division of Air and Waste Management, Air Quality Management Section (AQM), under the direction of Darryl D. Tyler, Section Administrator. The working responsibility for this document falls within the Planning and Community Protection (PCP) Branch of AQM, under the management of Raymond H. Malenfant, Program Manager. The following staff members of PCP's Airshed Assessment and Improvement (AAI) Program are instrumental for this document:

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2. Reevaluation of VOC Emission Reductions from Motiva's Wastewater Treatment Plant

In order to comply with the Federal Benzene Waste Rule and Section 28 of Delaware Air Pollution Control Regulation 24 (hereafter referred to as Regulation 24.28, Reference 3), Motiva Enterprises (formerly Star Enterprise) in New Castle County planed to implement a number of process modifications and emission controls to its waste water treatment plant prior to 1996. Those modifications and controls include:

- (1) Oily Water Sewer: Using passive ventilation through carbon canisters for active manholes and sealing inactive manholes.
- (2) CPI Separator: Sealing the existing fixed roof, adding a nitrogen blanket, and passively venting emissions to a carbon absorption canister.
- (3) API Separator: Using a combination of fixed and floating covers and venting emissions to a carbon absorption canister.
- (4) Equalization Tanks: Covering with floating roofs.
- (5) Spill Diversion Tank: Covering with a floating roof.
- (6) Dissolved Air Flotation Unit: Retrofitting with fixed roof covers and venting emissions to a control device.

The total VOC emission from the wastewater treatment plant in 1990 was estimated to be 848.4 TPY (Appendix I of the 2002 RPP). As a result of implementing the above controls, VOC emission reductions could be achieved. Upon an agreement between DNREC and Motiva (Attachment 1), Delaware decides not to take 180 TPY VOC emission reductions from the wastewater treatment plant for reduction credits in the 2002 RPP.

The 180 TPY VOC reduction is estimated with respect to the 1990 base year. It cannot be simply subtracted from the 2002 total VOC emission reductions projected in Part III of the 2002 RPP.

Instead, steps similar to those used in Section 3 of Appendix I of the 2002 RPP should be applied to the sources that produce this reduction in the wastewater treatment plant. Delaware conducts the following analysis to determine the 2002 VOC emission reduction resulting from the 180 TPY emission in 1990.

The 1990 base year VOC emission from Motiva's wastewater treatment plant ($EMIS_{1990}$) can be expressed as

$$EMIS_{1990} = EMIS_{1990\text{CRED}} + EMIS_{1990\text{NONCR}} \quad (1)$$

where $EMIS_{1990\text{CRED}}$ is the emissions from which reduction credits will be taken in 2002, and

$EMIS_{1990NONCR}$ is the emissions from which the reductions will not be taken as credit in 2002. The 2002 current control projection is

$$EMIS_{CC2002} = EMIS_{1990} \times GF = EMIS_{1990CRED} \times GF + EMIS_{1990NONCR} \times GF \quad (2)$$

where GF is the growth factor. The first part of Eq. 2 is the credit portion and the second part is the non-credit portion. The 2002 control strategy projection is

$$EMIS_{CS2002} = EMIS_{1990CRED} \times GF \times (1 - CE_{CRED}\% \times RE\%) + EMIS_{1990NONCR} \times GF \times (1 - CE_{NONCR}\% \times RE\%) \quad (3)$$

where $CE_{CRED}\%$ is the control efficiency of the credited sources and $CE_{NONCR}\%$ is the control efficiency for the non-credited sources. Again, the first part of Eq. 3 is the credit portion and the second part is the non-credit portion. The emission reduction in 2002 (ER_{2002}) is

$$\begin{aligned} ER_{2002} &= EMIS_{CC2002} - EMIS_{CS2002} = ER_{2002CRED} + ER_{2002NONCR} \\ &= EMIS_{1990CRED} \times GF - EMIS_{1990CRED} \times GF \times (1 - CE_{CRED}\% \times RE\%) + \\ &\quad EMIS_{1990NONCR} \times GF - EMIS_{1990NONCR} \times GF \times (1 - CE_{NONCR}\% \times RE\%) \end{aligned} \quad (4)$$

The emission reduction from the credited sources is

$$\begin{aligned} ER_{2002CRED} &= EMIS_{CC2002CRED} - EMIS_{CS2002CRED} \\ &= EMIS_{1990CRED} \times GF - EMIS_{1990CRED} \times GF \times (1 - CE_{CRED}\% \times RE\%) \end{aligned} \quad (5)$$

The emission reduction from the non-credited sources is

$$\begin{aligned} ER_{2002NONCR} &= EMIS_{CC2002NONCR} - EMIS_{CS2002NONCR} \\ &= EMIS_{1990NONCR} \times GF - EMIS_{1990NONCR} \times \\ &\quad GF \times (1 - CE_{NONCR}\% \times RE\%) \end{aligned} \quad (6)$$

For the credited sources, the total 1990 emission can be obtained from Table M-1 (Appendix I of the 2002 RPP) minus 180 TPY, that is, $848.4 - 180 = 668.4$ TPY, or 1.832 TPD. The controlled emission from these sources has been calculated previously (Table M-2 of Appendix I of the 2002RPP), that is, 0.308 TPD. Thus, the control efficiency for the credited sources is

$$CE_{2002CRED} = \frac{1.832 - 0.308}{1.832} \times 100\% = 83.3\% \quad (7)$$

Applying Eq. 5 and assuming an 80% rule effectiveness, the emission reduction credit can be calculated as

$$ER_{2002CRED} = EMIS_{CC2002CRED} - EMIS_{CS2002CRED}$$

$$\begin{aligned}
&= 1.832 \times 1.08 - 1.832 \times 1.08 \times (1 - 83.3\% \times 80\%) \\
&= 1.979 - 0.660 = 1.319 \text{ TPD}
\end{aligned}$$

The VOC emission reduction of 1.319 TPD is the reduction credit to be used in Delaware's 2002 RPP. This reduction credit will replace the original 1.722 TPD credit in the 2002 RPP (page 3-39).

3. Reevaluation of VOC and NOx Emission Targets and Required Reductions in 2002

As explained in the 2002 RPP (Section 1.4), the VOC emission target in 2002 is the sum of control strategy projections for all VOC sources, which is 101.139 TPD. Due to the change in VOC emission reduction from Motiva's wastewater treatment plant (1.722 - 1.319 = 0.403 TPD), the VOC emission target in 2002 becomes 101.542 TPD (i.e., 101.139 + 0.403 = 101.542 TPD). This will reduce the creditable VOC emission reductions of 7.877 TPD to 7.474 TPD, which is 5.62% of the adjusted baseline (Please see Table 1-13 on page 1-22 of the 2002 RPP). Thus, the percentage of NOx emission reductions that can be used to substitute VOC emission reductions becomes 3.38% (i.e., 9.00% - 5.62% = 3.38%). The required NOx emission reduction from the adjusted baseline can be calculated to be 5.354 TPD (Please see page 1-23 for calculation details). The NOx emission target in 2002 will then become 143.120 TPD. All new numbers presented herein will replace their corresponding original numbers in the 2002 RPP.

The new required VOC and NOx emission reductions, and the new VOC and NOx emission target levels in 2002 are presented in the amended Table 1-15 (The amended Table 1-15 should replace the original Table 1-15 on page 1-24 of the 2002 RPP).

Table 1-15 (Amended)
Target Levels of VOC and NOx Emissions in 2002 (in TPD)

| Description | VOC | NOx | |
|---|----------------|----------------|-----------------|
| 1999 Target Level | 110.206 | 148.964 | (a) |
| Emission Reduction for Rate-of-Progress | 7.474 | 5.354 | (b) |
| Fleet Turnover Correction for 1999-2002 | 1.190 | 0.490 | (c) |
| Target Level for 2002 | 101.542 | 143.120 | (d)=(a)-(b)-(c) |

Due to the above changes in VOC and NOx emission target levels, the required emission reductions from the uncontrolled emission projections need to be amended, as shown in the amended Table 2-13 (The amended Table 2-13 should replace the original Table 2-13 on page 2-18 of the 2002 RPP).

Table 2-13 (Amended)

VOC and NOx Emission Reductions Required in the 2002 RPP (in TPD)

| VOC Emissions | | | NOx Emissions | | |
|---------------------|-----------------------------------|-----------------------------------|---------------------|-----------------------------------|-----------------------------------|
| Target Level (a) | Current Control Projection (b) | Required Reduction (c)=(b)-(a) | Target Level (d) | Current Control Projection (e) | Required Reduction (f)=(e)-(d) |
| 101.542 | 165.277 | 63.735 | 143.120 | 186.881 | 43.761 |

Due to the changes discussed above, the VOC emission reductions in Table 3-8 (page 3-25 of the 2002 RPP) will be amended as follows: (1) the expected VOC emission reduction under Federal Benzene Waste Rule and Delaware Air Regulation 24.28 (regarding Motiva's wastewater treatment plant) shall be changed from 1.722 TPD to 1.319 TPD, and (2) the total expected VOC reduction from all sources shall be changed from 64.138 TPD to 63.735 TPD. Those changes are reflected in the amended Table 3-8 (The amended Table 3-8 should replace the original Table 3-8 on page 3-25 and page 3-26 of the 2002 RPP). Comparison of the total expected VOC emission reduction to the required reduction shows that the VOC emission control measures proposed in the 2002 RPP are adequate to meet the rate-of-progress requirements on VOC emission reduction.

Comparison of the expected total NOx reduction in Table 3-9 (page 3-27 of the 2002 RPP) and the required NOx reduction in the amended Table 2-13 indicates that the control measures proposed in the original 2002 RPP are still adequate to meet the rate-of-progress requirements on NOx emission reduction. In addition, the NOx control measures will produce a 1.042 TPD surplus credit (44.803 - 43.761 = 1.042 TPD). Delaware decides to use this NOx reduction surplus in the amended contingency plan of the 2002 RPP, which is discussed in the following section.

Table 3-8 (Amended)
VOC Emission Control Measures and Expected Emission Reductions for the 2002 RPP

| Control Measures And Regulations | Expected VOC Emission Reduction | | |
|---|---------------------------------|--------------|--------------|
| | Kent | New Castle | Total NAA |
| Point Source Controls | | | |
| RACT "Catch-Ups" in Kent County: | | | |
| Solvent Metal Cleaning | 0.547 | N/A | 0.547 |
| Surface Coating of Metal Furniture | 0.037 | N/A | 0.037 |
| Leaks from Synthetic Organic Chemical, Polymer, and Resin Manufact. Equip. | 0.004 | N/A | 0.004 |
| New RACT Regulations: | | | |
| Bulk Gasoline Marine Tank Vessel Loading Facilities | N/A | 1.896 | 1.896 |
| SOCMI Reactor Processes and Distillation Operations | N/A | 0.026 | 0.026 |
| Batch Processing Operations | 0.393 | 0.038 | 0.431 |
| Offset Lithography | N/A | 0.085 | 0.085 |
| Aerospace Coatings | 0.003 | 0.004 | 0.007 |
| Industrial Cleaning Solvents | N/A | 0.518 | 0.518 |
| Non-CTG RACT | 0.159 | 0.221 | 0.380 |
| Federal Benzene Waste Rule and Delaware Air Regulation 24.28 | N/A | 1.319 | 1.319 |
| Other Delaware Regulations: | | | |
| Sanitary Landfills | 0.071 | 0.274 | 0.345 |
| Irreversible Process Changes | 0.754 | 1.210 | 1.964 |
| Total VOC Reductions from Point Sources | 1.968 | 5.591 | 7.559 |
| Stationary Area Source Controls | | | |
| RACT "Catch-Ups" in Kent County: | | | |
| Solvent Metal Cleaning | 0.136 | N/A | 0.136 |
| Cutback Asphalt | 0.026 | N/A | 0.026 |
| New and Revised RACT Regulations: | | | |
| Stage I Vapor Recovery-Gas. Disps. Facil. | 0.493 | 0.159 | 0.652 |

| | | | |
|---|-------|-------|-------|
| Emulsified Asphalt | 0.026 | 0.027 | 0.053 |
| Motor Vehicle Refinishing | 0.266 | 1.058 | 1.324 |
| Offset Lithography | 0.080 | 0.001 | 0.081 |
| Aerospace Coatings | N/A | 0.033 | 0.033 |
| Stage II Vapor Recovery | 0.447 | 1.435 | 1.882 |
| Other Delaware Regulations: Open Burning | 1.844 | 5.987 | 7.831 |

Table 3-8 (Amended) (Continued)

| Control Measures And Regulations | Expected VOC Emission Reduction | | |
|---|---------------------------------|---------------|---------------|
| | Kent | New Castle | Total NAA |
| Stationary Area Source Controls (Cont'd) | | | |
| Federal Rules | | | |
| Consumer Products | 0.192 | 0.765 | 0.957 |
| Architectural Coatings | 0.269 | 1.071 | 1.340 |
| Total VOC Reductions from Area Sources | 3.779 | 10.536 | 14.315 |
| Off-Road Mobile Source Controls | | | |
| Reformulated Fuel | 0.008 | 0.025 | 0.033 |
| New Emis. Standards: | | | |
| For Small Spark Ignition Engines | 0.976 | 3.091 | 4.067 |
| For Compression Ignition Engines | 0.232 | 0.500 | 0.732 |
| For Marine Engines | 0.013 | 1.006 | 1.019 |
| Total VOC Reductions from Off-Road Sources | 1.229 | 4.622 | 5.851 |
| On-Road Mobile Source Controls | | | |
| FMVCP and RVP | 5.960 | 13.970 | 19.930 |
| Tier I Vehicle Emissions Standards | 1.570 | 2.710 | 4.280 |
| a. Basic I/M for Kent County | 1.210 | N/A | 1.210 |
| b. ATP and Pressure Test for Kent | | | |
| ATP and Pressure Test for New Castle | N/A | 4.300 | 4.300 |
| Reformulated Fuel | 1.390 | 4.490 | 5.880 |
| LEV Program | 0.070 | 0.340 | 0.410 |
| Total VOC Reductions from On-Road Sources | 10.200 | 25.810 | 36.010 |
| Total VOC Reductions from All Controls | 17.176 | 46.559 | 63.735 |

4. Amendments to Contingency Plan of the 2002 Rate-of-Progress Plan

In the Contingency Plan of the 2002 RPP (Part IV), Delaware applied an improved rule effectiveness (*RE*) factor of 92% to the NO_x sources covered by the OTC Regional NO_x Controls

(through Delaware Regulation 37, Reference 4). Since Regulation 37 has been promulgated for more than two years, further analysis of the regulation indicates that an *RE* value of 97% can be obtained and used for estimating emissions from the affected NO_x sources (Please see the next section). Applying the new *RE* of 97% to all affected NO_x sources, the projections of their NO_x emissions in 2002 can be reevaluated as shown in Table 4-1 (Amended) (The amended Table 4-1 should replace the original Table 4-1 on page 4-6 and page 4-7 of the 2002 Rate-of-Progress Plan).

Table 4-1 (Amended)
Projections of NOx Emissions with RE=97% for Sources Affected by OTC MOU Phase II Regional Controls

| Plant Name*** | Point | Source SCC | 1990 Emission (TPD) | 1990 Emission Baseline (Ton/5month) | MOU Phase II Emission Allowance (Ton/5month) | 2002 Current Control Projection (TPD) | 2002 Control Strategy Projection (TPD) | Emission Reduction (TPD) |
|--|--|----------------------------|----------------------------|--|---|--|---|---------------------------------|
| Delmarva Power Delaware City | 002 | 2-01-001-01 | 0.003 | 0.6 | 2.0 | 0.003 | 0.011 | -0.008 |
| Delmarva Power Edge Moor New Castle County | 001 | 2-01-001-01 | 0.012 | 0.7 | 2.0 | 0.011 | 0.035 | -0.024 |
| | 002 | 1-01-002-12 | 4.552 | 655.8 | 242.0 | 4.180 | 1.730 | 2.450 |
| | | 1-01-004-04 | | | | | | |
| | | 1-01-005-01 | | | | | | |
| 003 | 1-01-002-12 1-01-004-04 1-01-005-01 1-01-006-04 | 8.009 | 928.7 | 346.0 | 8.660 | 3.073 | 5.586 | |
| 004 | 1-01-004-01 1-01-005-01 1-01-006-01 | 12.138 | 1,436.0 | 650.0 | 15.667 | 5.659 | 10.008 | |
| Delmarva Power Hay Road New Castle County | 001 | 2-01-001-01 | 0.575 | 49.0 | 50.0 | 0.774 | 0.605 | 0.169 |
| | | 2-01-002-01 | | | | | | |
| | 002 | 2-01-001-01 2-01-002-01 | 0.329 | 33.6 | 35.0 | 0.440 | 0.353 | 0.087 |
| Dover Electric McKee Run Kent County | 001 | 1-01-004-01 | 0.903 | 91.6 | 73.0 | 0.703 | 0.741 | -0.038 |
| | | 1-01-005-01 | | | | | | |
| | | 1-01-006-01 | | | | | | |
| 002 | 1-01-004-01 | 0.429 | 56.3 | 45.0 | 0.473 | 0.353 | 0.120 | |
| | 1-01-005-01 1-01-006-01 | | | | | | | |
| 003 | 1-01-004-01 1-01-005-01 1-01-006-01 | 2.980 | 411.7 | 186.0 | 3.788 | 1.386 | 2.402 | |

Table 4-1 (Amended) (Continued)

| Plant Name*** | Point | Source SCC | 1990 Emission (TPD) | 1990 Emission Baseline (Ton/5month) | MOU Phase II Emission Allowance (Ton/5month) | 2002 Current Control Projection (TPD) | 2002 Control Strategy Projection (TPD) | Emission Reduction (TPD) | |
|--|--------------|---|----------------------------|--|---|--|---|---------------------------------|--------------|
| First State Power Kent County | 001 | 1-02-002-19 1-02-004-05 | 1.431 | 201.2 | 203.0 | 1.588 | 1.487 | 0.101 | |
| Motiva Enterprises Delaware City New Castle County | 006 | 3-06-001-06 3-06-001-11 | 0.370 | 104.3 | 105.0 | 0.399 | 0.383 | 0.016 | |
| | 019 | 3-06-001-06 | 0.137 | 20.1 | 21.0 | 0.147 | 0.147 | 0.001 | |
| | 034 | 3-06-001-06 | 0.470 | 69.5 | 71.0 | 0.507 | 0.494 | 0.013 | |
| | 067 | 1-01-004-01 1-01-007-01 | 1.354 | 229.0 | 94.0 | 1.295 | 0.573 | 0.723 | |
| | 068 | 1-01-004-01 1-01-007-01 1-01-008-01 | 4.241 | 588.5 | 207.0 | 4.581 | 1.537 | 3.044 | |
| | 069 | 1-01-004-01 1-01-007-01 1-01-008-01 | 4.301 | 647.4 | 228.0 | 4.645 | 1.560 | 3.085 | |
| | 070 | 1-01-004-01 1-01-007-01 1-01-008-01 | 4.324 | 610.7 | 216.0 | 4.670 | 1.575 | 3.095 | |
| | 074 | 3-06-001-06 | 0.263 | 116.7 | 118.0 | 0.284 | 0.273 | 0.010 | |
| Total Reductions | | (TPD) | | | | | | | 30.84 |

* The OTC Phase II NOx Control Strategy has been implemented in Delaware via Delaware Air Pollution Regulation 37, as amended in March 1999. This table does not include four small sources of Delmarva Power (Christiana Substations 1 and 2, Madison Street Substation, and West Substation). The NOx emissions from these four small sources were not included in Delaware's 1990 Base Year Emission Inventory because they were smaller than the 25 TPY threshold.

** A negative sign indicates an actual emission increase.

*** Plant names changes since 1990: (1) First State Power Point 001 was formerly Kraft General Foods Point 001. (2) Motiva Enterprises was formerly Star Enterprise. Motiva's Point 067 was formerly Delmarva Power's Point 001 at Delaware City.

As shown in Table 4-1 (Amended), applying the improved *RE* of 97% will produce a total NOx emission reduction of 30.84 TPD. If compared with the total reduction of 27.22 TPD obtained with the default *RE* of 80% (Table 3-17 in Part III of the 2002 RPP), the additional reduction will be 3.62 TPD (i.e., 30.84 – 27.22 = 3.62). It should be pointed out that this additional 3.62 TPD NOx emission reduction can be obtained through *RE* improvement without any further rule-making activities at both State and federal levels.

A summary of the contingency measures and the associated additional VOC and NOx emission reductions are presented in Table 4-2 (Amended) (The amended Table 4-2 should replace the original Table 4-2 on page 4-8 of the 2002 RPP). As shown in Table 4-2 and in the discussions above, the total VOC emission reduction for contingency purpose is 0.58 TPD, which is equal to the required reduction. The total NOx emission reduction proposed herein for contingency purpose is greater than the required reduction. Therefore, the amended contingency plan meets the contingency requirements set forth by EPA under CAAA.

Table 4-2 (Amended)
Summary of Contingency Measures and Emission Reductions

| <u>Contingency Measures</u> | <u>Emission Reduction (TPD)</u> | |
|--|---------------------------------|-------------|
| | <u>VOC</u> | <u>NOx</u> |
| <u>Stage II Vapor Rec. with Annual Inspection</u> | 0.58 | - |
| Required VOC Emission Reductions | 0.58 | - |
| NOx Controls in Peak Ozone Season | - | 1.04 |
| <i>RE</i> Improvement on NOx Regional Control Rule | - | 3.62 |
| Total NOx Emission Reduction | - | 4.66 |
| <u>Required NOx Emission Reductions</u> | - | <u>4.07</u> |

5. Amendments to Appendix N of the 2002 Rate-of-Progress Plan

As discussed in the previous section, Delaware proposes an *RE* of 97% to be used in the contingency plan for estimating emissions from NOx sources covered by Regulation 37. The following amendments, and the analyses on which the amendments are made, will replace (1) Section C, Item 4, page N-3 of Appendix N of the 2002 RPP, and (2) Total Score from Questionnaire, page N-4 of Appendix N of the 2002 RPP.

(1) Section C, Item 4

4. The answer is 4a. YES and a score of 10 is assigned.

The selection is made based on the following judgements:

- (1) Since Regulation 37 became effective in May 1999, no source has been found to be out of compliance.
- (2) The severe noncompliance penalty provision (Sect. 18.a. of Regulation 37) and the trading program will enable quick correction measures for any noncompliance case.

(2) Total Score from the Questionnaire

A: 15 of 15; **B:** 15 of 15; **C:** 24 of 25; **D:** 43 of 45.

Total Score = 15 + 15 + 24 + 43 = 97 of 100 maximum score.

Thus, the *RE* is assessed to be 97%. This RE value of 97% will be used in projecting NOx emissions from sources covered by Regulation 37 in the contingency plan of Delaware's 2002 Rate-of-Progress Plan.

Attachment 1

Settlement Agreement between Motiva Enterprises LLC and Delaware Department of Natural Resources and Environmental Control.

(A hard copy of this attachment is available upon request. Written request should be addressed to F. Gao, Air Quality Section, DNREC, 156 South State Street, Dover, DE 19901, or through fax at (302)739-3106, or via e-mail at fgao@state.de.us.)

