

through VOC control measures; for NO_x, this entails multiplying the 1990 adjusted NO_x base year inventory for 1999 and later milestone years by the percentage of required ROP reductions to be achieved through NO_x substitution.

(e) Calculate the fleet turnover correction term for each milestone year: The fleet turnover correction is the difference between the FMVCP/RVP emission reductions calculated in step (c) for one milestone year and that for the previous milestone year; it is also

the difference between the 1990 adjusted base year inventory for one milestone year and that of the following milestone year³.

(f) Calculate the revised target level of emissions for the 2005 milestone year, by subtracting the sum of all the fleet turnover corrections, the sum of all the required ROP reductions for all milestone years from the 1990 ROP base year inventory.

Tables 3 and 4 below summarize the target level calculations for both NO_x and VOC emissions for the 2005 ROP

milestone year. Using a combination of VOC and NO_x emission reductions, MDE's target level calculations show that the 2005 target level for VOC incorporates the 15 percent ROP reduction in baseline emissions by 1996, and show that the VOC and NO_x 2005 target levels incorporate at least a 9 percent total ROP reduction in baseline emissions for all milestone years, namely 1999, 2002 and 2005, after 1996. The MDE has correctly calculated the 2005 target levels for the Baltimore area.

TABLE 3.—BALTIMORE AREA 2005 VOC TARGET LEVEL

Row	Description	VOC (tpd)
0	1990 Base Year Inventory (Minus biogenic emissions)	554.29 (-180.09)
1	1990 Rate-of-Progress Base-Year Inventory	374.20
	1990 Inventory Adjusted to 1996	296.30
2	Reduction Required for 15% VOC Rate-of-Progress	44.445
3	Fleet Turnover Correction 1990 to 1996	77.9
	1990 Inventory Adjusted to 1999	286.59
4	Reduction Required for 1999 Rate-of-Progress to 1999: 0.15% VOC and 8.85% NO _x	0.43
5	Fleet Turnover Correction 96 to 99	9.7
	1990 Inventory Adjusted to 2002	279.4
6	Reduction Required for 2002 Rate-of-Progress: 2.5% VOC and 6.5% NO _x	6.99
7	Fleet Turnover Correction 1999 to 2002	7.19
	1990 Inventory Adjusted to 2005	274.43
8	Reduction Required for 2005 Rate-of-Progress: 0.38% VOC and 8.62% NO _x	1.05
9	Fleet Turnover Correction	4.97
10	2005 Target Level is row one minus the sum of rows two through nine	221.53

TABLE 4.—BALTIMORE AREA NO_x TARGET LEVEL

Row	Description	NO _x (tpd)
1	1990 Rate-of-Progress Base-Year Inventory	536.60
	1990 Inventory Adjusted to 1999	487.30
2	Reduction Required for Rate-of-Progress to 1999: 0.15% VOC and 8.85% NO _x	43.13
3	Fleet Turnover Correction 90 to 99	49.3
	1990 Inventory Adjusted to 2002	472.40
4	Reduction Required for Rate-of-Progress: 2.5% VOC and 6.5% NO _x	30.71
5	Fleet Turnover Correction 1999 to 2002	14.90
	1990 Inventory Adjusted to 2005	458.86
6	Reduction Required for Rate-of-Progress: 0.38% VOC and 8.62% NO _x	39.54
7	Fleet Turnover Correction	13.54
8	2005 Target Level = row one minus the sum of rows two through seven	345.49

The methodologies used by MDE to project emissions growth and EPA's evaluation are discussed in the technical support document (TSD) prepared in support of this proposed rulemaking action. Maryland used appropriate methodologies to project emissions growth in all source categories. The projection year inventories for NO_x and VOCs for the 2005 attainment year are shown in

Tables 5 and 6 below. EPA has determined that these growth estimates are approvable.

TABLE 5.—BALTIMORE PROJECTED (UNCONTROLLED) VOC EMISSIONS

Source Category	1990 VOC base-line (tpd)	2005 VOC projected (tpd)
Point	42.0	54.2
Mobile	165.1	91.8
Nonroad	44.7	55.76

³ The aggregate noncreditable FMVCP/RVP reductions increase over time, and conversely, the 1990 adjusted base year inventory decreases over time. Thus the aggregate noncreditable FMVCP/RVP

reductions through 2005 are larger than those for 2002, and the 1990 adjusted base year inventory for 2005 is less than that for 2002. The sum of the aggregate noncreditable FMVCP/RVP reductions up

to and including those achieved in a milestone year and of the 1990 adjusted base year inventory for that year is always equal to the ROP base year inventory.