FR at 48679 n.36 and 48682. However, EPA did not apply Rule Effectiveness values in calculating the impacts of other control measures, thereby making these measures overly optimistic.

In addition to the Act-mandated controls, EPA also examined the impact of a region-wide limit on NO<sub>X</sub> emissions of 0.15 lbs/MMBtu (the "0.15 NOx standard") for boilers, gas turbines, and internal combustion engines with a capacity of at least 250 MMBtu/hr. EPA calculated that this level of control would achieve a 15% reduction in inventory-wide NO<sub>X</sub> emissions from a 2005 projected baseline, after application of other controls mandated in the Act. Together with the mandatory measures, this would achieve a total NO<sub>x</sub> emissions reduction in the OTR of 32% from 1990 baseline levels.

EPA explained in the SNPRM that it evaluated the 0.15 NO<sub>X</sub> standard as representing the maximum emissions reduction from large stationary sources that is not clearly unreasonable or impracticable. See 59 FR at 48679. By this EPA explained that it did not mean that EPA believes that such measures are in fact reasonable and practicable. See 59 FR at 48678.

In fact, on September 27, 1994—five days after publication of the SNPRM eleven of the thirteen OTC member States signed a Memorandum of Understanding regarding regional  $NO_X$ controls ( $NO_X$  MOU) somewhat less stringent than the 0.15  $NO_X$  standard. Only Massachusetts and Virginia have not signed the  $NO_X$  MOU.

Designed to build on the existing NO<sub>X</sub> Reasonably Available Control Technology (RACT) program, the agreement represents a phased approach to controlling NO<sub>X</sub> emissions from power plants and other large fuel combustion sources. The first component (called "phase II" because the existing NO<sub>X</sub> RACT program is "phase I"), to be implemented by May 1999, would include three control zones in the region: An inner zone ranging from the Washington, DC, metropolitan area northeast to southeastern New Hampshire; an outer zone ranging from the inner zone out to western Pennsylvania; and a northern zone which includes much of northern New York and northern New England, including most of New Hampshire.

Control requirements under the MOU vary with the zone in which the various sources are located, with the most stringent requirements occurring in the inner zone. Affected sources (boilers and indirect heat exchangers with a maximum gross heat input rate of at least 250 MMBtu per hour and electric generating units producing at least 15MW of electricity) in the Inner Zone will be required to reduce  $NO_X$ emissions by 65 percent from base year levels or emit  $NO_X$  at a rate of no more than 0.2 lbs/MMBtu. In the Outer Zone,  $NO_X$  emissions must be reduced by 55 percent from base year levels by May 1, 1999, or emissions must be limited to no more than 0.2 lbs/MMBtu. Northern Zone controls remain at RACT levels during phase II.

The next phase (known as "phase III") would be implemented by May 2003. By that date, affected sources in both the Inner and Outer Zones must reduce NO<sub>X</sub> emissions by 75 percent from base year levels or limit NO<sub>X</sub> emissions to no more than 0.15 lb/MMBtu. Affected sources in the Northern Zone would be subject to regulations that would reduce their rate of NO<sub>X</sub> emissions by 55 percent from base year levels, or would have to emit NO<sub>X</sub> at a rate of no greater than 0.2 lbs/MMBtu.

The NO<sub>X</sub> MOU provides for modified regulations for the May 1, 2003, targets if additional modelling and analysis show that these modified regulations, in combination with regulations for controlling VOCs, will result in attainment of the ozone standard throughout the OTR. In such a case, the NO<sub>X</sub> MOU would have to be revised by December 31, 1998.

Based on EPA's 1990 interim emissions inventory, EPA estimates that the NO<sub>X</sub> MOU will result in about a 70 percent reduction in NO<sub>X</sub> from these sources, or slightly less than the reduction that would have occurred with the application of a region-wide 0.15 lbs/MMBtu standard. EPA estimates that more than three-fourths of the total NO<sub>X</sub> reductions to be obtained under the NO<sub>X</sub> MOU will be achieved by 1999.

In addition to the Act-mandated measures and region-wide NO<sub>X</sub> controls, EPA also considered a variety of NO<sub>X</sub> and VOC control measures from STAPPA/ALAPCO compilations, transportation control measures, California reformulated gasoline, and measures EPA proposed for FIPs for California areas. As summarized in the SNPRM, most of the NO<sub>X</sub> source categories in the STAPPA/ALAPCO compilation were already encompassed within the 0.15 NO<sub>X</sub> standard. The remaining STAPPA/ALAPCO categories of small stationary and area sources comprise an extremely small portion of the stationary source segment of the emissions inventory, and a still smaller portion of the overall inventory. EPA also calculated that the transportation control measures that EPA would consider potentially broadly practicable would yield only a combined reduction

of 2.5% from 1990 baseline inventorywide NO<sub>X</sub> reductions. In the SNPRM, EPA identified the option of extending the employee trip reduction (or employee commute options ("ECO")) program region-wide as potentially practicable. Upon further consideration, EPA believes it is more appropriate to characterize region-wide ECO as a measure that, while potentially practicable in some urban and suburban settings, cannot be considered broadly practicable if applied across the OTR Deleting the emission-reduction benefits of extending ECO region-wide, however, merely buttresses the conclusions described above. For California reformulated gasoline, EPA calculated a 1.4% reduction in NO<sub>X</sub> emission from 1990 baseline inventory-wide levels. For the proposed California FIP measures, EPA also did not find additional options that were not either inappropriate or unavailable in the OTR, or already encompassed within the Act-mandated controls or 0.15 NO<sub>X</sub> standard. In sum, EPA concludes that all other potentially broadly practicable options will be needed in addition to more stringent controls for new motor vehicles throughout the OTR, in order for the serious and severe ozone nonattainment areas in the OTR to attain the ozone standard; those other options will not produce emissions reductions sufficient to remove the need for such motor vehicle controls. As described in the SNPRM, similar conclusions apply with respect to VOC emission controls in and near the urban Northeast Corridor nonattainment areas of the OTR.

iii. Determination Whether Reductions from OTC LEV or LEV-Equivalent Program Are Necessary

As discussed in the SNPRM and above, EPA has concluded that there are not sufficient broadly practicable options for making up the shortfall in emissions reductions necessary for attainment and that all of the emissions reductions associated with applying the OTC LEV or LEV-equivalent program are necessary. See 59 FR at 48683-48684. EPA calculated the impact of the OTC LEV program in 2005 from the 2005 projected inventory, over the reductions that will take place in New York and Massachusetts as a result of their existing LEV programs beginning in 1996. EPA did not account in those calculations for the emissions associated with migrating and visiting vehicles. EPA subsequently analyzed these migration effects and published a notice describing them on October 24, 1994, 59 FR 53396. Since that notice, EPA has done a more thorough analysis of these effects, which can be found in the RIA