Table II-4a. OTAG Strategy Control Packets for NOx.

|----------------------|------------------------------------|--------------------------------------------------|---------------------------------|-------------------------------|
| **Base 1 (Mandated CAA controls)** | * Title IV Controls [ Phase 1 & 2 for all boiler types ]
* 250 Ton PSD and NSPS
* RACT & NSR in non-waived NAAs | * RACT at major sources in non-waivered NAAs
* 250 Ton PSD and NSPS
* NSR in non-waived NAAs | * Fed Phase II Small Eng. Stds
* Fed Marine Engine Stds
* Fed HDV (>=50 hp) Stds-Phase 1
* Fed RFG II^4 | * Tier 1 LDV and HDV Stds
* Fed RFG II^4
* Enh I/M^3
* Low Enh I/M for rest of OTR
* Basic I/M in mandated areas
* Clean Fuel Fleets for mandated areas |
| **Level 0** | **Base 1 plus:**
* OTC NOX MOU (Phase II)
* "9% by 99" ROP Measures (If substitute for VOC)^3 | **Base 1 plus:**
* "9% by 99" ROP Measures (If substitute for VOC)^3 | **Base 1 plus:**
* Fed Locomotive Standards (not including rebuilds)
* "9% by 99" ROP Measures (If substitute for VOC)^3 | **Base 1 plus:**
* National LEV
* HDV 2 gm std
* FTP revisions
* "9% by 99" ROP Measures (If substitute for VOC)^3 |
<table>
<thead>
<tr>
<th>Added NOX Controls - Level 1</th>
<th>More stringent of Level 0 or:</th>
<th>Level 0 plus: Controls rated by OTAG as under $1000 per ton</th>
<th>Level 0 plus: * Fed Locomotive Stds (incl rebuild standards)¹ [Replaces Fed Locomotive Stds (not including rebuilds)] * HD engine 4 gm Std</th>
<th>Level 0 plus: * High Enh I/M for LDV (LEV-specific cutpoints)⁶ [Replaces Enh I/M⁶, Low Enh I/M for rest of OTR, &amp; Basic I/M in mandated areas] * HDV I/M⁶</th>
</tr>
</thead>
<tbody>
<tr>
<td>Added NOX Controls - Level 1</td>
<td>More stringent of Level 0 or:</td>
<td>Level 1 plus: Controls rated by OTAG as $1000 to $5000 per ton</td>
<td>Level 1 plus: * Reformed Diesel (50 cetane)² [Replaces Fed RFG II] or Low Sulfur Fuel (150 ppm)² ⁵ * Reformed Diesel (50 cetane)² * Max I/M for LDV w/ LEV-specific cutpoints⁶ [Replaces High Enh I/M for LDV (LEV-specific cutpoints)⁶]</td>
<td></td>
</tr>
<tr>
<td>Added NOX Controls - Level 2</td>
<td>More stringent of Level 0 or:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Added NOX Controls - Level 2</td>
<td></td>
<td>b) * 75% reduction from 1990 rate or * rate-base of 0.20 lb/mmbtu for all units, whichever is less stringent⁷</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deep NOX Controls - Level 3</td>
<td>More stringent of Level 0 or:</td>
<td>Level 2 plus: Controls rated by OTAG as over $5000 per ton</td>
<td>Level 2 plus: * Reformed Diesel (55 cetane)(^2) [Replaces Reformed Diesel (50 cetane)(^2)]</td>
<td>Level 2 plus: * Cal RFG II(^2) [Replaces Fed RFG II(^2) ] * Reformed Diesel (55 cetane)(^2) [Replaces Reformed Diesel (50 cetane)(^2)]</td>
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</tr>
<tr>
<td>* 85% reduction from 1990 rate or * rate-base of 0.15 lb/mmbtu for all units, whichever is less stringent(^7)</td>
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<td></td>
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</tbody>
</table>

\(^1\) National.  
\(^2\) OTAG Wide or Specified.  
\(^3\) Serious and above areas.  
\(^4\) Statutory and opt-in areas.  
\(^5\) OTAG-Optimized fuel (e.g., low RVP, low sulfur, low olefins) was evaluated elsewhere during OTAG as an alternative.  
\(^6\) For all nonattainment areas & attainment MSAs/CMSAs >=100,000.  
\(^7\) Qualifications set by OTAG on the use of lb/MMBtu numbers:  
(1) These numbers are for initial strategy modeling purposes only. They do not reflect any recommendation from OTAG on the desired level of reduction for these units. (2) OTAG reserves the right to do sensitivity analyses on any source in an effort to achieve a desired ozone impact. Such sources may include those that chose the lb/MMBtu option. The requirement for such analyses may exist in certain areas where the size and location of such a major source is critical to achieving the ozone goals. (3) The alternative lb/MMBtu limits shall not supersede an existing requirement that is more stringent (e.g., OTC MOU or NSPS requirements).  
\(^8\) OTAG evaluated California diesel separately.