

**BAY AREA AIR QUALITY MANAGEMENT DISTRICT  
Best Available Control Technology (BACT) Guideline**

**Source Category**

<b>Source:</b>	<b>IC Engine-Compression Ignition: Stationary Emergency, non- Agricultural, non-direct drive fire pump</b>	<b>Revision:</b>	<b>7</b>
		<b>Document #:</b>	<b>96.1.3</b>
<b>Class:</b>	<b>≥ 50 BHP Output</b>	<b>Date:</b>	<b>12/22/2010</b>

**Determination**

<b>Pollutant</b>	<b>BACT 1. Technologically Feasible/ Cost Effective 2. Achieved in Practice 3. TBACT</b>	<b>TYPICAL TECHNOLOGY</b>
<b>POC (NMHC)</b>	<ol style="list-style-type: none"> <li>n/s<sup>c</sup></li> <li>CARB ATCM standard<sup>a</sup> for POC at applicable horsepower rating (see attached Table 1).</li> </ol>	<ol style="list-style-type: none"> <li>n/s<sup>c</sup></li> <li>Any engine certified or verified to achieve the applicable standard. <sup>a</sup></li> </ol>
<b>NOx</b>	<ol style="list-style-type: none"> <li>n/s<sup>c</sup></li> <li>CARB ATCM standard<sup>a</sup> for NOx at applicable horsepower rating (see attached Table 1).</li> </ol>	<ol style="list-style-type: none"> <li>n/s<sup>c</sup></li> <li>Any engine certified or verified to achieve the applicable standard. <sup>a</sup></li> </ol>
<b>SO<sub>2</sub></b>	<ol style="list-style-type: none"> <li>n/s<sup>c</sup></li> <li>Fuel sulfur content not to exceed 0.0015% (wt) or 15 ppm (wt).</li> </ol>	<ol style="list-style-type: none"> <li>n/s<sup>c</sup></li> <li>CARB Diesel Fuel (Ultra Low Sulfur Diesel)</li> </ol>
<b>CO</b>	<ol style="list-style-type: none"> <li>n/s<sup>c</sup></li> <li>CARB ATCM standard<sup>a</sup> for CO at the applicable horsepower rating (see attached Table 1).</li> </ol>	<ol style="list-style-type: none"> <li>n/s<sup>c</sup></li> <li>Any engine certified or verified to achieve the applicable standard. <sup>a</sup></li> </ol>
<b>PM<sub>10</sub></b>	<ol style="list-style-type: none"> <li>n/s<sup>c</sup></li> <li>0.15 g/bhp-hr</li> <li>0.15 g/bhp-hr</li> </ol>	<ol style="list-style-type: none"> <li>n/s<sup>c</sup></li> <li>Any engine or technology demonstrated, certified or verified to achieve the applicable standard.</li> <li>Any engine or technology demonstrated, certified or verified to achieve the applicable standard.</li> </ol>
<b>NPOC</b>	<ol style="list-style-type: none"> <li>n/s</li> <li>n/s</li> </ol>	<ol style="list-style-type: none"> <li>n/s</li> <li>n/s</li> </ol>

**References**

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| <p>a.</p> <p>b.</p> <p>c.</p> | <p>ATCM standard (listed below): Where NMHC + NOx is listed (with no individual standards for NOx or NMHC) as the standard, the portions may be considered 95% NOx and 5% NMHC. For the purposes of determining BACT NMHC = POC. Any engine which has been certified or demonstrated to meet the current year tier standard may be considered compliant with the certified emission standard for that pollutant.</p> <p>Deleted (no longer applies).</p> <p>Cost effectiveness analysis must be based on lesser of 50 hr/yr or non-emergency operation as limited by District health risk screen analysis.</p> |
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Table 1: BACT 2 Emission Limits based on CARB ATCM

<b>Emissions Standards for Stationary Emergency Standby Diesel-Fueled CI Engines <math>\geq</math>50 BHP g/Kw-hr (g/bhp-hr)</b>			
<b>Maximum Engine Power</b>	<b>PM</b>	<b>NMHC+NOx</b>	<b>CO</b>
37 $\leq$ KW < 56 (50 $\leq$ HP < 75)	0.20 (0.15)	4.7 (3.5)	5.0 (3.7)
56 $\leq$ KW < 75 (75 $\leq$ HP < 100)	0.20 (0.15)	4.7 (3.5)	5.0 (3.7)
75 $\leq$ KW < 130 (100 $\leq$ HP < 175)	0.20 (0.15)	4.0 (3.0)	5.0 (3.7)
130 $\leq$ KW < 225 (175 $\leq$ HP < 300)	0.20 (0.15)	4.0 (3.0)	3.5 (2.6)
225 $\leq$ KW < 450 (300 $\leq$ HP < 600)	0.20 (0.15)	4.0 (3.0)	3.5 (2.6)
450 $\leq$ KW $\leq$ 560 (600 $\leq$ HP $\leq$ 750)	0.20 (0.15)	4.0 (3.0)	3.5 (2.6)
KW > 560 (HP > 750)	0.20 (0.15)	6.4 (4.8)	3.5 (2.6)