

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

**Source Category**

<b>Source:</b>	<b>IC Engine – Compression Ignition: Stationary Emergency</b>	<b>Revision:</b>	<b>9</b>
		<b>Document #:</b>	<b>96.1.3</b>
<b>Class:</b>	<b>➤ 50 BHP and &lt; 1000 BHP Output</b>	<b>Date:</b>	<b>12/02/2024</b>

**Determination**

<b>Pollutant</b>	<b>BACT</b> 1. Technologically Feasible/Cost Effective 2. Achieved in Practice 3. TBACT	<b>TYPICAL TECHNOLOGY</b>
<b>POC</b>	1. n/s <sup>(a)</sup> 2. U.S. EPA Final Tier 4 standard <sup>(b)</sup> for POC at applicable horsepower rating (see attached Table 1)	1. n/s <sup>(a)</sup> 2. Any engine certified or verified to achieve the applicable Tier 4 Final standard for POC
<b>NOx</b>	1. n/s <sup>(a)</sup> 2. U.S. EPA Final Tier 4 standard <sup>(b)</sup> for NO <sup>x</sup> at applicable horsepower rating (see attached Table 1)	1. n/s <sup>(a)</sup> 2. Any engine certified or verified to achieve the applicable Tier 4 Final standard for NO <sup>x</sup>
<b>SO<sub>2</sub></b>	1. n/s <sup>(a)</sup> 2. Fuel sulfur content not to exceed 0.0015% (wt) or 15 ppm (wt)	1. n/s <sup>(a)</sup> 2. CARB Diesel Fuel (Ultra Low Sulfur Diesel)
<b>CO</b>	1. n/s <sup>(a)</sup> 2. U.S. EPA Final Tier 4 standard for CO at applicable horsepower rating (see attached Table 1)	1. n/s <sup>(a)</sup> 2. Any engine certified or verified to achieve the applicable Tier 4 Final standard for CO
<b>PM<sub>10</sub></b>	1. n/s <sup>(a)</sup> 2. U.S. EPA Final Tier 4 standard for PM <sup>(c)</sup> at applicable horsepower rating (see attached Table 1) 3. U.S. EPA Final Tier 4 standard for PM <sup>(c)</sup> at applicable horsepower rating (see attached Table 1)	1. n/s <sup>(a)</sup> 2. Any engine certified or verified to achieve the applicable Tier 4 Final standard for PM 3. Any engine or technology demonstrated, certified, or verified to achieve the applicable standard.
<b>PM<sub>2.5</sub></b>	1. n/s <sup>(a)</sup> 2. Same as PM <sub>10</sub>	1. n/s <sup>(a)</sup> 2. Same as for PM <sub>10</sub>
<b>NPOC</b>	1. n/s <sup>(a)</sup> 2. n/s	1. n/s <sup>(a)</sup> 2. n/s

**References**

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|----|---|
| a. | Cost effectiveness analysis must be based on the lesser of reliability-related testing allowed per Regulation 9, Rule 8 (either 100 hours per year if facility is an essential public service as defined in Regulation 9, Rule 8 or 50 hours per year, otherwise) or as limited by an Air District health risk assessment.  |
| b. | Where a standard is combined for non-methane hydrocarbon (NMHC) and NO <sub>x</sub> (with no individual standards for NMHC or NO <sub>x</sub> ), the portions may be considered 5% NMHC and 95% NO <sub>x</sub> . For the purposes of determining BACT NMHC = POC. Any engine which has been certified or demonstrated to meet the Tier 4 Final standard may be considered compliant with the certified emission standard for that pollutant. |
| c. | As measured by United States EPA Method 5 (filterable portion only).  |

**Table 1. Achieved-in-Practice BACT Emission Limits Based on U.S. EPA Final Tier 4 Standards**

Maximum Engine Power	Emission Limits (g/bhp-hour)			
	NMHC <sup>(1)</sup>	NO <sub>x</sub>	CO	PM <sup>(2)</sup>
50 ≤ HP < 75	3.5		3.7	0.022
75 ≤ HP < 100	0.14	0.29	3.7	0.015
100 ≤ HP < 175	0.14	0.29	2.6	0.015
175 ≤ HP < 300	0.14	0.29	2.6	0.015
300 ≤ HP < 600	0.14	0.29	2.6	0.015
600 ≤ HP ≤ 750	0.14	0.29	2.6	0.015
750 < HP < 1000	0.14	0.49	2.6	0.022

**Notes:**

1. Non-methane hydrocarbons
2. As measured by United States EPA Method 5 (filterable portion only)