

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

Source Category

Source:	IC Engine-Compression Ignition: Stationary Emergency, non- Agricultural, non-direct drive fire pump	Revision:	8
		Document #:	96.1.3
Class:	➤ 50 BHP and < 1000 BHP Output	Date:	12/22/2020*

Determination

Pollutant	BACT 1. Technologically Feasible/ Cost Effective 2. Achieved in Practice 3. TBACT	TYPICAL TECHNOLOGY
POC (NMHC)	<ol style="list-style-type: none"> n/s^c CARB ATCM standard^a for POC at applicable horsepower rating (see attached Table 1). 	<ol style="list-style-type: none"> n/s^c Any engine certified or verified to achieve the applicable standard. ^a
NOx	<ol style="list-style-type: none"> n/s^c CARB ATCM standard^a for NOx at applicable horsepower rating (see attached Table 1). 	<ol style="list-style-type: none"> n/s^c Any engine certified or verified to achieve the applicable standard. ^a
SO₂	<ol style="list-style-type: none"> n/s^c Fuel sulfur content not to exceed 0.0015% (wt) or 15 ppm (wt). 	<ol style="list-style-type: none"> n/s^c CARB Diesel Fuel (Ultra Low Sulfur Diesel)
CO	<ol style="list-style-type: none"> n/s^c CARB ATCM standard^a for CO at the applicable horsepower rating (see attached Table 1). 	<ol style="list-style-type: none"> n/s^c Any engine certified or verified to achieve the applicable standard. ^a
PM₁₀	<ol style="list-style-type: none"> n/s^c 0.15 g/bhp-hr 0.15 g/bhp-hr 	<ol style="list-style-type: none"> n/s^c Any engine or technology demonstrated, certified or verified to achieve the applicable standard. Any engine or technology demonstrated, certified or verified to achieve the applicable standard.
NPOC	<ol style="list-style-type: none"> n/s n/s 	<ol style="list-style-type: none"> n/s n/s

* Applies to open permit applications with a complete date on or after 1/1/2020.

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

Emissions Standards for Stationary Emergency Standby Diesel-Fueled CI Engines \geq50 BHP g/Kw-hr (g/bhp-hr)			
Maximum Engine Power	PM	NMHC+NOx	CO
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)
560 < KW < 750 (750 < HP < 1000)	0.20 (0.15)	6.4 (4.8)	3.5 (2.6)