



Instructions: Internal Combustion Engine Form

Introduction	Use the following instructions to help guide you through the <i>Internal Combustion Engine form</i> .
Who should use this form?	This form should be submitted with new permit applications and applications to modify or alter existing sources. This form is for all internal combustion engines, except for turbines (for turbines, submit a Combustion form.)
Facility Information	<ul style="list-style-type: none">• BAAQMD Facility ID – The facility ID number is available on any permit or invoice issued by BAAQMD. This can be found in the upper right of the permit or the invoice.<ul style="list-style-type: none">➤ If this application is for a new facility (not currently permitted by BAAQMD), you must also submit <i>Facility Creation Form</i> and <i>Facility Contacts Form</i>.
General Information	<ul style="list-style-type: none">• BAAQMD Device ID – For existing facilities, the device ID number can be found on the Permit to Operate to the left of the device name (for example: <u>51</u> Emergency Standby Engine).• Device/Operation Name – This is the name you associate with this device.• Initial/Proposed Date of Operation:<ul style="list-style-type: none">○ For new construction, enter the date that you propose will be the initial date of operation.○ For a modification of an existing permitted operation, enter the date that you propose the changes to occur.○ For an existing operation that is not currently permitted by BAAQMD, enter the date for which the facility initially operated.• Device/Operation Description – This is your description of the device or operation. This field can be used to distinguish it from other similar devices (e.g. ID numbers, location, make, model, etc.)
Equipment Information	Provide the manufacturer’s specification sheet of the ICE with this form. If the engine will be equipped with add-on abatement equipment, please submit an Abatement Device form with your application.
Material Usage Information	See Tables A and B for a list of material codes, usage units, and maximum fuel use rate units, and Table C for a list of basis codes.
Still need help?	Contact the Engineering Division: (415) 749-4990 permits@baaqmd.gov



Bay Area Air Quality Management District
INTERNAL COMBUSTION ENGINE FORM

For all internal combustion engines, except for turbines.
All fields are required unless otherwise noted. Please type or print.

Email to: permits@baaqmd.gov

Mail to: BAAQMD
Engineering Division
375 Beale Street, Suite 600
San Francisco, CA 94105

Tel: (415) 749-4990

1. Facility Information

Facility Name	BAAQMD Facility ID (Existing facilities only)
Facility Address (Street address and city)	

2. General Information

BAAQMD Device ID (If applicable)			
Device/Operation Name		Initial/Proposed Date of Operation	
Device/Operation Description			

3. Operating Schedule – Select “Continuous” or specify specific schedule in the 4 columns

Continuous <input type="checkbox"/>	Maximum hours/day	Typical hours/day	Days/week	Weeks/year

4. Equipment Type

➤ Please submit the manufacturer’s specification sheet with this form.

Equipment Manufacturer (Make)	Equipment Model

Select the type of Internal Combustion Engine: Emergency Standby Prime

5. Additional Information

EPA/CARB Engine Family Name	Serial Number (Required Before Start-up Date)	Year of Manufacture
Maximum Rated Output		Typical Load Percent (Optional)
bhp		%

Primary Use of Engine:

- | | | | |
|-------------------------------------|---|--|--|
| <input type="radio"/> Chipper | <input type="radio"/> Crane Driver | <input type="radio"/> Fire Pump Driver | <input type="radio"/> Screen Driver |
| <input type="radio"/> Co-generation | <input type="radio"/> Electrical Generation | <input type="radio"/> Pump | <input type="radio"/> Tub Grinder Driver |
| <input type="radio"/> Compressor | <input type="radio"/> Other: _____ | | |

Diesel Engine Tier Rating (Diesel Engines only):

- Non-certified (Tier 0) Tier 1 Tier 2 Tier 3 Tier 4

Engine Ignition Type:

- 2 Stroke Compression 2 Stroke Spark 4 Stroke Compression 4 Stroke Spark

Engine Burn Type:

- Lean Burn Rich Burn Not Applicable Unknown

Which of these describes this engine?

- Off-Site Portable On-Site Portable Stationary



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6. Equipment Information

Does this engine include any of the following? (Check all that apply)

- Aftercooler Inter-cooler Supercharger
 Injection Timing Retard Naturally Aspirated Turbocharger

Is this engine equipped with any integral abatement equipment? Yes No

Will this engine be equipped with add-on abatement equipment? Yes No

➤ If yes, submit an Abatement Device form with your application.

7. Material Usage Information

Fill out information on the fuel used with this device:

➤ See Tables A and B for a list of material codes, usage units, and maximum fuel use rate units, and Table C for a list of basis codes.

Material Name	Material Code	Maximum Annual Usage	Material Usage Units
Maximum Fuel Use Rate	Max. Use Rate Units		

Optional Additional Information for Prime Engines Using Non-Standard Fuels

Higher Heating Value	Higher Heating Value Units	Sulfur Content	Sulfur Content Units
Nitrogen Content	Nitrogen Content Units		

Combustion Material Emission Factors

Pollutant	Emission Factors (units)	Basis Code
Particulates		
Organics		
Nitrogen Oxides (NO _x)		
Sulfur Dioxide		
Carbon Monoxide		
Other:		
Other:		

8. Emission Train Information – Emission Point forms required with all Internal Combustion Engine applications

With regard to emission flow, what abatement devices and/or emission points are *immediately* downstream of this source?

Abatement Devices A _____ A _____ A _____ Emission Points P _____ P _____ P _____

➤ Complete an Abatement Device Form and/or Emission Point Form for each connection.

9. Certification/Signature of person responsible for the information on this form

I hereby certify that I am authorized to complete this form for the facility and that all information contained herein is true and correct.

Name	Title	
Signature	Date	Phone (xxx-xxx-xxxx)

Table A. Stationary Emergency Standby Internal Combustion Engine Material Codes

CODE	MATERIAL NAME	UNITS	MAX RATE UNITS	CODE	MATERIAL NAME	UNITS	MAX RATE UNITS
815	Biodiesel (B100)	hours	gallons/hour	160	LPG	hours	gallons/hour
816	Biodiesel (B20-blend)	hours	gallons/hour	189	Natural gas	hours	scf/hour
98	Diesel fuel	hours	gallons/hour	417	Propane	hours	gallons/hour
551	Gasoline - Unleaded	hours	gallons/hour				

Table B. Prime Internal Combustion Engine Material Codes

CODE	MATERIAL NAME	UNITS	MAX RATE UNITS	CODE	MATERIAL NAME	UNITS	MAX RATE UNITS
816	Biodiesel (B20-blend)	thou gallons	gallons/hour	160	LPG	thou gallons	gallons/hour
98	Diesel fuel	thou gallons	gallons/hour	511	Landfill gas**	Mcf	scf/hour
493	Digester gas**	Mcf	scf/hour	189	Natural gas	Mcf	scf/hour
551	Gasoline - Unleaded	thou gallons	gallons/hour	417	Propane	thou gallons	gallons/hour

**Non-standard fuels

Table C. Basis Codes – for Emission Factor Table

CODE	BASIS	CODE	BASIS	CODE	BASIS
1	BAAQMD Regulation 9-7	5	EPA/CARB Certification	9	Other
2	CARB Certification	6	EPA Certification	10	Other Literature
3	CATEF	7	Manufacturer/Vendor Specification	11	Regulation
4	EPA AP-42	8	Material Balance	12	Source Test