



Form ICE is to be completed for all internal combustion engines except turbines. (For turbines, submit Form C). Submit one form for each engine. If this is a new engine or a modification to an existing engine, complete Form HRA (Health Risk Assessment).

➤ Please include the engine manufacturer's **equipment specifications as an attachment to this form.**

**1. SUMMARY**     New Construction     Modification     Loss of Exemption

Facility Name \_\_\_\_\_ Plant/Facility No. \_\_\_\_\_ Source No. (Existing Only) \_\_\_\_\_

Source Description \_\_\_\_\_ Initial Date of Operation (New Engines Only) \_\_\_\_\_

Operating Schedule:    Typical hrs/day \_\_\_\_\_ Days/week \_\_\_\_\_ Weeks/yr \_\_\_\_\_    Maximum hrs/day \_\_\_\_\_

**2. ENGINE INFORMATION**     Check here if applying for a multiple location permit. (See Reg. 2-1-413 for requirements)

Engine Type: (Check one)     4 Stroke     2 Stroke Compression Ignition (Diesel)    or     4 Stroke     2 Stroke Spark Ignition

Engine Manufacturer \_\_\_\_\_ Model \_\_\_\_\_ Model Year \_\_\_\_\_

EPA/CARB Engine Family Name \_\_\_\_\_ Engine Serial No. \_\_\_\_\_

Engine Displacement \_\_\_\_\_ (cu in)    Maximum rated output (bhp) \_\_\_\_\_    Typical load as % of bhp rating \_\_\_\_\_

Is this an emergency/standby engine?     Yes     No

Is this emergency generator being installed in response to PG&E's PSPS program?\*     Yes     No

\*The Air District is collecting information on emergency generators that are being installed in response to PG&E's Public Safety Power Shutoff (PSPS) program. If you are completing this form for an emergency generator, please mark "Yes" if you are installing this emergency generator because of the PG&E PSPS program. Note: Marking "Yes" will NOT limit the operation of the emergency generator to only PSPS power outages.

(Check all that apply below)

Certification:     EPA Certified     CARB Certified    CARB Executive Order No. \_\_\_\_\_

None (If None is checked, please indicate below the items applicable to this engine.)

Naturally aspirated     Supercharged     Turbocharged     Inter-cooled     After-cooled

Timing retard  $\geq 4^\circ$      Lean-burn     Rich-burn

Primary Use:     Electrical generation     Cogeneration     Pump driver     Fire pump driver

Compressor driver     Tub grinder driver     Other: \_\_\_\_\_

**3. ABATEMENT DEVICE INFORMATION** Complete this section only if the engine has an add-on abatement device.

Check here if the engine has more than one add-on abatement device and complete a separate Form A for each additional abatement device.

Abatement device number    A \_\_\_\_\_ (If "New" leave blank)     New     Existing

Device type:     Diesel catalyzed particulate filter     Oxidation catalyst     Selective catalytic reduction (SCR)

Non-selective catalytic reduction (NSCR or 3-way catalyst)     Other: \_\_\_\_\_

Make, Model, and Rated Capacity \_\_\_\_\_

Abatement device control efficiencies at typical operation (Use the basis codes listed below. If unknown leave blank)

Control Efficiency/Emission Factor Basis Codes: (Submit supporting documentation if available)

- |   |                            |
|---|----------------------------|
| (1) Source testing or other measurement by plant          | (8) Guess                  |
| (2) Source testing or measurement by BAAQMD (BAAQMD only) | (9) EPA/CARB Certification |
| (3) Specification from vendor                             |                            |
| (4) Material balance by plant using knowledge of process  |                            |
| (5) Material balance by BAAQMD (District use only)        |                            |
| (6) EPA Document AP-42 Emission Factors                   |                            |
| (7) Taken from literature other than AP-42                |                            |

Pollutant Name	Wt % Reduction	Basis Code
Particulates		
Organics		
Nitrogen Oxides		
Sulfur Dioxide		
Carbon Monoxide		
Others <input type="checkbox"/> Check here and attach a separate list of pollutants. Include the basis code and the control efficiency.		

**BAY AREA AIR QUALITY MANAGEMENT DISTRICT**

**Form ICE**  
Internal Combustion Engines

**4. EMISSION POINT/STACK INFORMATION**  Check here if the engine has more than one stack or has a continuous pollutant emission monitor and complete one Form P for each emission point.

Emission point number P \_\_\_\_\_ (If "New" leave blank)  New  Existing  
 Stack outlet height from ground level (ft) \_\_\_\_\_  
 Diameter of stack outlet (inches) \_\_\_\_\_ or Outlet cross-section area (square inches) \_\_\_\_\_  
 Direction of outlet (check one)  Horizontal  Vertical End of outlet (check one)  Open/hinged flap  Rain cap  
 Exhaust rate at typical operation (acfm) \_\_\_\_\_ Exhaust temperature at typical operation (°F) \_\_\_\_\_

**5. RISK ASSESSMENT INFORMATION**

Distance from engine to the property line of the nearest residence (ft) \_\_\_\_\_ or (check if)  Greater than one mile  
 Distance from engine to the property line of the nearest school<sup>1</sup> (ft) \_\_\_\_\_ or (check if)  Greater than 1000 ft  
<sup>1</sup>K-12 and more than twelve children only.  
 Describe the nearest non-residential, non-school site (check one)  Industrial  Commercial  Hospital  
 Day care center  Other \_\_\_\_\_  
 Distance from engine to the property line of the nearest non-residential, non-school site(ft) \_\_\_\_\_ or  Greater than one mile

**6. FUEL DATA** Complete the table below for each fuel burned. If you are using a fuel other than those listed in the fuel code table, attach a **fuel analysis** indicating the higher heating value, sulfur content, and nitrogen content. Please clearly indicate the measurement unit that corresponds to the information you are submitting.  Check here if you are using more than two fuels, and attach a copy of this page listing the additional fuels.

Primary Fuel					Secondary Fuel				
Fuel Code <sup>1</sup>	Name				Fuel Code <sup>1</sup>	Name			
Maximum Fuel Use Rate <sup>2</sup>	_____ gal/hr or SCF/hr				Maximum Fuel Use Rate <sup>2</sup>	_____ gal/hr or SCF/hr			
Annual Fuel Usage <sup>3</sup>	_____ gal/yr or therm/yr or SCF/yr				Annual Fuel Usage <sup>3</sup>	_____ gal/yr or therm/yr or SCF/yr			
Typical Heat Content <sup>4</sup>	_____ BTU/gal or BTU/SCF				Typical Heat Content <sup>4</sup>	_____ BTU/gal or BTU/SCF			
Sulfur Content <sup>4</sup>	_____ wt% liquids or ppmv gases				Sulfur Content <sup>4</sup>	_____ wt% liquids or ppmv gases			
Emission Factors (Optional)					Emission Factors (Optional)				
Pollutant Name	Emission Factor	Units <sup>5</sup>	Basis Code <sup>6</sup>	Abated Factor (✓) <sup>7</sup>	Pollutant Name	Emission Factor	Units <sup>5</sup>	Basis Code <sup>6</sup>	Abated Factor (✓) <sup>7</sup>
Particulates				<input type="checkbox"/>	Particulates				<input type="checkbox"/>
Organics				<input type="checkbox"/>	Organics				<input type="checkbox"/>
Nitrogen Oxides				<input type="checkbox"/>	Nitrogen Oxides				<input type="checkbox"/>
Carbon Monoxide				<input type="checkbox"/>	Carbon Monoxide				<input type="checkbox"/>
Others – <input type="checkbox"/> Check here and attach a separate list under each fuel used.					Others – <input type="checkbox"/> Check here and attach a separate list under each fuel used.				

- Fuel Codes:** Diesel (98) Bio Diesel B100 (815) Bio Diesel B20 Blend (816) Gasoline (551) Propane (417)  
 Natural Gas (189) Landfill Gas (511) Digester Gas (493) Liquid Petroleum Gas (LPG) (160)
- Maximum fuel use rate units: gallon/hr for liquid fuels and SCF/hr for gaseous fuels. (SCF = Standard Cubic Foot)
- The annual fuel usage is the actual or projected engine fuel consumption over a rolling 12-month time period. Annual usage units: gallons for liquid fuel, therms for natural gas, and SCF for other gaseous fuels. (therm = 100,000 BTUs, BTU = British Thermal Unit)
- If you are using diesel, natural gas, or gasoline, you may skip this entry. Heat content units: BTU/gallon for liquid fuels, BTU/SCF for gaseous fuels. Sulfur content units: weight % for liquid fuels, ppmv for gaseous fuels. (ppmv = parts per million by volume)
- Emission factors may be reported as gram/brakehp-hr, or as lb per gallon, or as lb per therm, or as lb per SCF.
- See the Control Efficiency/Emission Factor Basis Code table under Section 3 on page 1 of this form.
- Place a check in this column if the emission factor applies to emissions after abatement by an add-on abatement device.

**7. CERTIFICATION** I hereby certify that all information contained herein is true and correct. (Please sign and date this form)

\_\_\_\_\_  
 Name of person certifying (print) Title of person certifying Signature of person certifying Date