BAY AREA AIR QUALITY MANAGEMENT DISTRICT
Engineering Division
375 Beale Street, Suite 600
San Francisco, CA 94105
www.baaqmd.gov

Bay Area Air District

Instructions: Combustion Device Form

Introduction	Use the following instructions to help guide you through the ***Combustion Device Form.***
Who should use this form?	This form should be submitted with new permit applications and applications to modify or alter existing sources.
Facility Information	• **Air District Facility ID** – The facility ID number is available on any permit or invoice issued by the Air District. This can be found in the upper right of the permit or the invoice. ➢ If this application is for a new facility (not currently permitted by the Air District), you must also submit a ***Facility Creation Form*** and ***Facility Contacts Form***.
General Device Information	• **Air District 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: **S1** Natural Gas Fired Boiler). • **Device/Operation Name** – This is the name you associate with this operation. • **Initial/Proposed Date of Operation:** ○ 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 the Air District, 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.)
Small Boiler/ Heater/Steam Generator	If all of the statements under section 4 are true, then your device qualifies for registration. Fill out the equipment information in the table within that section and then skip ahead to section 8 of the form.
Equipment Type	You will enter the equipment type and sub-type in section 5. See Table A for a full list of combustion equipment types and sub-types. If you select 'Boiler/Heater', 'Incinerator', 'Turbine', or 'Other', further equipment information is requested.
Material Usage	See Tables B and C for lists of emission factor basis codes and material codes.
Submission Information	All applications can be submitted through our Online Permitting System, by e-mail, or by mail: • Online Permitting System: https://www.baaqmd.gov/onlinepermitting • E-mail: permits@baaqmd.gov • Mail: Bay Area Air District, Engineering Division, 375 Beale Street, Suite 600, San Francisco, CA 94105
Still need help?	**Contact the Engineering Division:** (415) 749-4990 | permits@baaqmd.gov

COMBUSTION DEVICE FORM

Bay Area Air District

For all operations which burn fuel, except for Internal Combustion Engines.
All fields are required unless otherwise noted. Please type or print.

1. Facility Information

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

2. General Device Information

Air District 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	Maximum hours/day	Typical hours/day	Days/week	Weeks/year
☐				

4. Small Boiler/Heater/Steam Generator – Registered Sources (Air District Regulation 9-7)

If you answer YES to the question below, this device qualifies for Registration. Provide additional equipment information requested in the table below and then skip ahead to section 8 of this form. If you answer NO, continue to section 5.

Are the below statements true? ◯ Yes ◯ No

- The rated heat input is greater than 2 MM Btu/hr and less than 10 MM Btu/hr
- The boiler, steam generator, or process heater is fired using only natural gas or LPG
- The boiler, steam generator, or process heater is not located at a petroleum refinery
- The boiler, steam generator, or process heater is not used to generate electricity

Equipment Manufacturer (Make)	Equipment Model
Serial Number	Maximum Rated Heat Input
	MM Btu/hr

5. Equipment Type

Fill out the Equipment Type and, if applicable, Sub-type, and answer any additional questions below.

- See Table A for a list of Equipment Types and Sub-types.
- If the equipment is an Internal Combustion Engine, use the ICE Form instead (unless it is a gas turbine).

Equipment Type (If 'Boiler/Heater', firetube or watertube?)	Equipment Sub-type (Explain if 'Other')
Equipment Manufacturer (Make)	Equipment Model

Temperature (Incinerator only)	Residence Time (Incinerator only)	Max Rated Output (Turbine only)
°F	milliseconds	hp

6. Primary Use

Select which primary use is most applicable:

◯ Co-generation ◯ Hot Water ◯ Space Heat ◯ Waste Disposal

◯ Electrical Generation ◯ Process Heat ◯ Testing ◯ Other: _____

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7. Additional Information

Overfire Air?	◯ Yes: _____	% (Overfire air percent)	◯ No
Flue gas recirculation?	◯ Yes: _____	% (Fire gas recirculation percent)	◯ No
Air preheat?	◯ Yes: _____	°F (Temperature)	◯ No
Low NOx burners?	◯ Yes		◯ No

Optional Combustion Information

Maximum Flame Temperature	Wet Gas Flow Rate	Combustion Products Temperature
°F	acfm	°F
Dry Volume Percent	**Wet Volume Percent**	**Excess Air Percent**
%	%	%

8. Material Usage

Fill out information on combustion fuel used in this operation:

➢ See Table C for a list of combustion fuel material codes and Table B for a list of emission factor basis codes.

Material Name	Material Code	Maximum Annual Usage	Material Usage Units

Fuel Consumption Rate	Fuel Rate Units	Higher Heating Value	Higher Heating Value Units
Sulfur Content	**Sulfur Content Units**	**Nitrogen Content**	**Nitrogen Content Units**

Typical % of Annual Total

Dec-Feb	Mar-May	Jun-Aug	Sep-Nov

Combustion Material Emission Factors

Pollutant	Emission Factors (lb/unit)	Basis Code
Particulates		
Organics		
Nitrogen Oxides (NO_X)		
Sulfur Dioxide		
Carbon Monoxide		
Other:		
Other:		

9. Emission Train Information

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.

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

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

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

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Table A. Equipment Types

TYPE	SUB-TYPE	TYPE	SUB-TYPE
Afterburner	Catalytic	Furnace	Glass
	Direct Flame		Metal Melting
	Other *(explain in section 5)*		Mineral Wood
Boiler/Heater (*specify firetube or watertube in section 5)*	Co-generation		Perlite
	Commercial/Institutional		Other *(explain in section 5)*
	Electric Generation	Incinerator	Conical
	Food Cooker		Controlled Air
	Heat Trans - Ref		Multiple Chamber
	Industrial		Multiple Hearth
	Recovery, Pulp Mill		Single Chamber
	Space Heat		Other *(explain in section 5)*
	Other *(explain in section 5)*	Kiln	Brick
Dryer Oven	Asphalt		Cement
	Coal		Gypsum
	Feed/Grain		Lime
	Fertilizer		Other *(explain in section 5)*
	Fiberglass Curing	Minor Sources	
	Food Products	Open Burning	
	Plywood	Turbine	Co-generation
	Pulpboard		Electric Generation
	Rock/Gravel		Engine Testing
	Surface Coating Curing/Drying		Industrial
	Other *(explain in section 5)*		Other *(explain in section 5)*
Flare	Industrial	Waste Gas Flare	Not Subject To Monitoring
Fluidized Bed Combustor			Subject To Monitoring
Furnace	CO/Blast	Sludge or Municipal Waste Incinerator	
	Fiberglass Melting	Other Combustion	

Table B. Basis Codes – for Emission Factor Table

CODE	BASIS	CODE	BASIS	CODE	BASIS
1	Air District 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

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Table C. Combustion Fuel Materials

CODE	MATERIAL NAME	UNITS	CODE	MATERIAL NAME	UNITS
815	Biodiesel (B100)	thou gallons	758	Hydrogen plant pressure swing absorption gas	Mcf
816	Biodiesel (B20-blend)	thou gallons	158	Jet A Fuel	thou gallons
43	Bituminous coal	tons	511	Landfill gas	Mcf
242	Bunker C fuel oil	thou gallons	167	Liquid waste	thou gallons
416	Butane	thou gallons	160	LPG	thou gallons
235	Carbon monoxide	Mcf	841	Medium BTU natural gas	Mcf
708	Chevron refinery fuel gas	Mcf	188	Naphtha	thou gallons
80	Coke	tons	189	Natural gas	Mcf
754	Cremation Case (container and corpse)	tons	200	Other Liquid Fuel	thou gallons
89	Crude oil	thou gallons	237	Process gas - other/not specified	Mcf
98	Diesel fuel	thou gallons	417	Propane	thou gallons
493	Digester gas	Mcf	238	Refinery make gas (RMG)	Mcf
315	Distillate oil	thou gallons	251	Sewage sludge	tons
392	Fuel oil #2	thou gallons	203	Solid fuel - other/not specified	tons
198	Gaseous fuels - H2, etc., other/not specified	Mcf	256	Solid propellant	tons
551	Gasoline - Unleaded	thou gallons	338	Waste gases	Mcf
759	Hydrogen (gas)	Mcf	305	Wood - other/not specified	tons