



Instructions: Abatement Device Form

Introduction	Use the following instructions to help guide you through the Abatement Device form .
Who should use this form?	This form should be submitted with new permit applications and applications to modify or alter existing devices.
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: A1 Particulate Control / Scrubber / Packed Bed).• 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 device, enter the date that you propose the changes will occur.○ For an existing device that is not currently permitted by BAAQMD, enter the date for which the device 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.)
Manufacturer Information	Please submit the manufacturer’s specification sheet with this form.
Abatement Device Category	<p>You will need to provide the Abatement Device Category, Type, and, if applicable, Sub-type. This information can be found under Table A.</p> <p>Depending on the type of Abatement Device, some additional information may be requested.</p>
Abatement Factors	Section 5 asks for the abatement efficiencies for this device. These should be entered as a percentage. See Table B for a list of Basis Codes.
Combustion Information	If this Abatement Device has a combustion component, you will need to fill out section 6. See Table C for a list of combustion fuel material codes and Table B for a list of Basis Codes.
Still need help?	Contact the Engineering Division: (415) 749-4990 permits@baaqmd.gov



ABATEMENT DEVICE FORM

Use one form for each Abatement Device.
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. Manufacturer Information

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

Equipment Manufacturer (Make)	Equipment Model

4. Abatement Component Category

➤ See Table A for a list of Abatement Device Categories, Types, and Sub-types (if applicable).

Abatement Component Category	Abatement Component Type	Abatement Component Sub-type

Optional Device Information by Component Type

All Abatement Component Types	Outlet Flowrate (cfm)	
Flare	Minimum Operating Temperature (°C or °F)	
CO Control Oxidation Catalyst		
Non-Selective Catalytic Reduction		
Selective Catalytic Reduction		
Selective Non-Catalytic Reduction		
Thermal Oxidizer / Catalytic Oxidizer / Afterburner		
CO Control Oxidation Catalyst	Residence Time (milliseconds)	
Thermal Oxidizer / Catalytic Oxidizer/ Afterburner		
Selective Catalytic Reduction	Ammonia Slip (ppm @ 15% or 3% Oxygen)	
Selective Non-Catalytic Reduction		
Thermal Oxidizer / Catalytic Oxidizer / Afterburner	Is the device regenerative? <input type="radio"/> Yes <input type="radio"/> No	
Other Vapor Recovery		
Adsorption	Number of Canisters/Bed	Weight per Canister/Bed (lbs)
Condenser	Inlet Temperature (°C or °F)	Outlet Temperature (°C or °F)



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Combustion Material Emission Factors

Table with 3 columns: Pollutant, Emission Factors (lb/unit), Basis Code. Rows include Particulates, Organics, Nitrogen Oxides (NOx), Sulfur Dioxide, Carbon Monoxide, and two 'Other:' entries.

7. Emission Train Information

With regard to emission flow, what sources and/or abatement devices are immediately upstream of this device?

Sources S _____ S _____ S _____ Abatement Devices A _____ A _____ A _____

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

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

8. 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.

Table for certification with fields for Name, Title, Signature, Date, and Phone (xxx-xxx-xxxx).

Table A. Abatement Component Categories, Types, and Sub-types

CATEGORY	TYPE	SUB-TYPE	CATEGORY	TYPE	SUB-TYPE	
Carbon Monoxide Control	Carbon Monoxide Boiler (1)		Particulate Control	Baghouse	Other Baghouse (13)	
	Oxidation Catalyst (72)				Dynamic (17)	
Diesel Particulate Control	Diesel Particulate Filter (69)			Cyclone		Multiple (over 12 inches diameter) (18)
	Oxidation Catalyst (71)					Multiple (under 12 inches diameter) (19)
						Simple (20)
NOx Control	Non-Selective Catalytic Reduction (NSCR) (67)			Electrostatic Precipitator		Single Stage (24)
	Selective Catalytic Reduction (SCR) (66)					Single Stage Wet (25)
	Selective Non-Catalytic Reduction (73)					Two Stage (26)
Organic Control	Adsorption	Activated Carbon / Charcoal (56)				Two Stage Wet (27)
		Silica (57)				Other Electrostatic Precipitator (28)
		Other Adsorption (58)				
	Condenser	Compress / Condense / Absorb Vapor Recovery (60)				Mist Eliminator
		Compression / Refrigeration Vapor Recovery (61)			Dry Panel (31)	
		Water-Cooled (62)			Dry Vertical Tube (33)	
		Other Condenser (63)			Spray/Irrigated (32)	
	Flare (4)				Other Mist Eliminator (34)	
	SVE Abatement Device (74)			Particulate Filter	Absolute Dry Filter (7)	
	Thermal Oxidizer/ Catalytic Oxidizer/ Afterburner	Catalytic (2)				Envelope Dry Filter (14)
Direct Flame (3)					Moving Belt Dry Filter (15)	
Furnace-Firebox (5)					Other Dry Filter (16)	
Other Afterburner (6)						
Vapor Recovery	Balance System (59)			Scrubber	Baffle and Secondary Flow (36)	
	Other Vapor Recovery (64)				Centrifugal (37)	
Particulate Control	Baghouse	Pulse Jet (8)			Fibrous Packed (39)	
		Reverse Air (9)			Impingement and Entrainment (41)	
		Reverse Jet (10)			Impingement Plate (40)	
		Shaking (11)			Irrigated Cyclone (38)	
		Simple (12)			Mechanically-Aided (42)	
					Moving Bed (43)	

CATEGORY	TYPE	SUB-TYPE	CATEGORY	TYPE	SUB-TYPE
Particulate Control	Scrubber	Packed Bed (44)	Sulfur Dioxide Control	Absorption	Absorption and Regeneration (48)
		Preformed Spray (45)			Dual Absorption (50)
		Venturi (46)			Reduction and Solution Regeneration (52)
		Other Scrubber (47)			Stretford Process (53)
	Water Spray (68)			Other Sulfur Dioxide Control	Claus Solution Reaction (49)
	Other Particulate Control	Baffled / Louvered Settling Chamber (21)			Flue Gas Desulfurization (51)
		Condensate Pot (29)			Sodium Sulfite-Bisulfite Scrubber (54)
		Dry Inertial Collector (23)			Other Sulfur Dioxide Control (55)
		Liquid Separator (35)			EthyleneOxide Catalytic Bed, Electric (76)
		Simple Settling Chamber (22)			Other Abatement Device
		Other Abatement Control Process (65)			

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

Table B. Combustion Fuel Material Codes

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

CODE	MATERIAL NAME	UNITS	CODE	MATERIAL NAME	UNITS
493	Digester gas	Mcf	238	Refinery make gas (RMG)	Mcf
315	Distillate oil	thou gallons	203	Solid fuel - other/not specified	tons
392	Fuel oil #2	thou gallons	256	Solid propellant	tons
198	Gaseous fuels - H2, etc., other/not specified	Mcf	338	Waste gases	Mcf
551	Gasoline - Unleaded	thou gallons	305	Wood - other/not specified	tons
759	Hydrogen (gas)	Mcf			