

Missouri Department of Natural Resources

EIQ Form 2.0C Control Device Information Instructions for Form 780-1434

Air Pollution Control Program fact sheet

12/2009

This form is required if a facility has a control device operating at an emission point. The information given should be consistent with the construction permit, unless more current information is available.

Complete the Facility Name, Federal Information Processing Standard, or FIPS, County Number, Plant Number and Year of Data fields at the top.

The **Emission Unit Number, Source Classification Code, or SCC**, and **Seg. No.** must be the same as those indicated on Form 2.0, which must accompany this form.

Device Number - This is the number you select to uniquely identify the air pollution control device. This device number should be the same as listed in the construction permit.

Device Code - This three-digit control device code is found in the Control Device Listing attached to this document. Use the code that best describes the control equipment.

Description of Control Device - Describe the control equipment used to reduce or remove air contaminants. The type of equipment (i.e., cyclone, baghouse, etc.) is most important, but brand and model numbers may also be useful.

Operating Status - This field indicates whether the control device is active, inactive or dismantled.

Emissions controlled through stack/vent - Indicate whether or not emissions are controlled with the control device through a stack or vent. If "Yes," list all the stacks/vents that share this control device where indicated.

Capture Efficiency (percent) - This is the percent of total emissions captured and routed to air pollution control equipment. Capture efficiency is determined at each emission unit controlled by a control device, regardless of the location of the control device. If a facility has a single central control device, and that device takes in pollutants from multiple emission units, a capture efficiency must be determined for each unit. The efficiency should be the same as what was approved in the construction permit.

Note: Capture efficiency is not applicable to the control of fugitive emissions. However, capture efficiency is a required data field. Therefore enter 100 percent capture efficiency for all sources using water suppressant or water spray controls, such as haul roads, storage piles or conveyors.

Control Device Efficiency (percent) - The control efficiency entered must be within the acceptable range for this control device. This percentage must match the control efficiency listed in the facility's construction or operating permit.

Source of Efficiency (codes): Choose from the code table listed for the source of efficiency.

CODE TEXT	NAME
Eng Judge	Efficiency based on Engineering Judgment
Est Pub Va	Estimated based on Published Value
Mass Bal	Calculated based on Material Balance
Mfg Design	Design Value from Manufacturer
Test EPA	Tested Efficiency (EPA Reference Method)
Test Other	Tested Efficiency (Other Method)

If you are reporting the same control efficiency for all Hazardous Air Pollutant, or HAP, chemicals for a control device, list the percent efficiency under HAPs. If a different control efficiency is used for different HAP chemicals, list the Chemical Abstract Service, or CAS, Numbers for the Controlled HAPs where indicated on the 2.0C form.

For example: A facility reports that control device CD1 has a control efficiency of 80 percent for Toluene, 60 percent for Xylenes and 70 percent for all other HAPs emitted at that emission point. In this case, there would be three separate entries on Form 2.0C for the same control device. You would list CD1, the device code, 80 percents under HAPs, and "108-88-3" under CAS number(s) for controlled HAPS for the first entry. The next entry would be the same control device information, but you would report the 60 percent under HAPs and the CAS number for Xylene. The third entry would also be the same control device information, but you would report the first entry. In the same control device information, but would list 70 percent control efficiency under HAPs and leave the CAS number(s) for controlled HAPS blank, as multiple HAPs are being grouped together under the 70 percent efficiency.

Code List for Form 2.0C Control Equipment Information Alphabetic Listing

Control Device Description	Control Device Code
Activated Carbon Adsorption	048
Activated Clay Adsorption	084
Afterburner	112
Air Injection	031
Alkaline Fly Ash Scrubbing	068
Alkalized Alumina	040
Ammonia Injection	032
Ammonia Scrubbing	038
Annular Ring Filter	064
Baffle	078
Baghouse	100
Boiler at Landfill	138
Bottom Filling	089
Carbon Injection	207
Catalytic Afterburner	019
Catalytic Afterburner with Heat Exchanger	020
Catalytic Converter	203
0	

Catalytic Oxidizer	109
Catalytic Reduction	065
CEM Upgrade and Increased Monitoring Frequency of PM Controls	220
Centrifugal Collector	210
Chemical Neutralization	083
Chemical Oxidation	080
Chemical Reduction	081
Clean Burn	148
Condenser	132
Conservation Vent	088
Control of Percent O2 in Combustion Air (Off Stoichiometric Firing)	033
Conversion to Floating Roof Tank	091
Conversion to Pressurized Tank	092
Conversion to Variable Vapor Space Tank	090
Direct Flame Afterburner	021
Direct Flame Afterburner with Heat Exchanger	022
Dry Electrostatic Granular Filter (DEGF)	079
Dry Limestone Injection	041
Dry Scrubber	119
Dry Sorbent Injection	206
Dual Alkali Scrubbing	036
Dust Suppression	217
Dynamic Separator (Dry)	056
Dynamic Separator (Wet)	057
Electrostatic Precipitator	128
Electrostatic Spraying	218
Fabric Filter	127
Flaring	023
Floating Bed Scrubber	120
Flue Gas 21	215
Flue Gas Recirculation	026
Freeboard Refrigeration Device	208
Gravel Bed Filter	063
Gravity Collector	209
High-Efficiency Particulate Air Filter (HEPA)	101
Incinerator	133
Increased Air/Fuel Ratio With Intercooling	147
Increased Monitoring Frequency (IMF) of PM Controls	219
Installation of Secondary Seal for External Floating Roof Tank	097
Knock Out Box	201
Liquid Filtration System	049
Low Excess Air Firing	029
Low Nitrogen Content Fuel	214
Low NOx Burners	205
Low Solvent Coatings	102
Magnesium Oxide Scrubbing	035

Mat or Panel Filter	058
Mechanical Collector	150
Metal Fabric Filter Screen (Cotton Gins)	059
Miscellaneous Control Devices	099
Mist Eliminator	211
Modified Burner or Furnace Design	024
Molecular Sieve	066
Multiple Cyclones	121
Nitrogen Blanket	087
Overfire Air	204
Ozonation	082
Packed-Gas Absorption Column	050
Powder Coatings	103
Pre-Combustion Chamber	149
Process Change	046
Process Enclosed	054
Process Gas Recovery	060
Quench Tower	122
Reduced Combustion - Air Preheating	027
Rotoclone	113
SCR (Selective Catalytic Reduction)	139
Screen	157
Screened Drums or Cages	154
Scrubber	129
Single Cyclone	075
SNCR	140
Sodium Carbonate Scrubbing	069
Sodium-Alkali Scrubbing	070
Spray Dryer	202
Spray Screen	144
Spray Tower	052
Staged Combustion	025
Steam Injection	212
Submerged Filling	093
Sulfur Plant	045
Sulfuric Acid Plant	216
Thermal Oxidizer	131
Tray-Type Gas Absorption Column	051
Underground Tank	094
Vapor Lock Balance Recovery System	096
Vapor Recovery Sys (Incl. condensers, hooding, other enclosures)	047
Water Curtain	086
Water Injection	213
Waterborne Coatings	104
Wet Cyclonic Separator	085
Wet Electrostatic Precipitator	146

Wet Lime Slurry Scrubbing	067
Wet Limestone Injection	042
WetScrubber	141
Wet Suppression	143
White Paint	095

Code List for Form 2.0C Control Equipment Information Numeric Listing

Control Device Code	Control Device Description
019	Catalytic Afterburner
020	Catalytic Afterburner with Heat Exchanger
021	Direct Flame Afterburner
022	Direct Flame Afterburner with Heat Exchanger
023	Flaring
024	Modified Furnace or Burner Design
025	Staged Combustion
026	Flue Gas Recirculation
027	Reduced Combustion - Air Preheating
029	Low Excess Air Firing
030	Use of Fuel with Low Nitrogen Content
032	Ammonia Injection
033	Control of Percent O2 In Combustion Air (Off Stoichiometric Firing)
035	Magnesium Oxide Scrubbing
036	Dual Alkali Scrubbing
038	Ammonia Scrubbing
040	Alkalized Alumina
041	Dry Limestone Injection
042	Wet Limestone Injection
045	Sulfur Plant
046	Process Change
048	Activated Carbon Adsorption
049	Liquid Filtration System
050	Packed-Gas Absorption Column
051	Tray-Type Gas Absorption Column
052	Spray Tower
054	Process Enclosed
056	Dynamic Separator (Dry)
057	Dynamic Separator (Wet)
058	Mat or Panel Filter
059	Metal Fabric Filter Screen (Cotton Gins)
060	Process Gas Recovery
063	Gravel Bed Filter
064	Annular Ring Filter
065	Catalytic Reduction
066	Molecular Sieve

067	Wet Lime Slurry Scrubbing
068	Alkaline Fly Ash Scrubbing
069	Sodium Carbonate Scrubbing
070	Sodium-Alkali Scrubbing
075	Single Cyclone
078	Baffle
079	Dry Electrostatic Granular Filter (DEGF)
080	Chemical Oxidation
081	Chemical Reduction
082	Ozonation
083	Chemical Neutralization
084	Activated Clay Adsorption
085	Wet Cyclonic Separator
086	Water Curtain
087	Nitrogen Blanket
088	Conservation Vent
089	Bottom Filling
090	Conversion to Variable Vapor Space Tank
091	Conversion to Floating Roof Tank
092	Conversion to Pressurized Tank
093	Submerged Filling
094	Underground Tank
095	White Paint
096	Vapor Lock Balance Recovery System
097	Installation of Secondary Seal for External Floating Roof Tank
098	Moving Bed Dry Scrubber
099	Miscellaneous Control Devices
100	Baghouse
101	High-Efficiency Particulate Air Filter (Hepa)
102	Low Solvent Coatings
103	Powder Coatings
104	Waterborne Coatings
109	Catalytic Oxidizer
110	Vapor Recovery Unit
112	Afterburner
113	Rotoclone
119	Dry Scrubber
121	Multiple Cyclones
122	Quench Tower
127	Fabric Filter
128	Electrostatic Precipitator
129	Scrubber
131	Thermal Oxidizer
132	Condenser
133	Incinerator
138	Boiler at Landfill

139	SCR (Selective Catalytic Reduction)
140	NSCR (Non-Selective Catalytic Reduction)
141	WetScrubber
143	Wet Suppression
144	Spray Screen
146	Wet Electrostatic Precipitator
147	Increased Air/Fuel Ratio with Intercooling
148	Clean Burn
149	Pre-Combustion Chamber
150	Mechanical Collector
154	Screened Drums or Cages
155	Packed Bed Scrubber - High Efficiency
157	Screen
201	Knock Out Box
202	Spray Dryer
203	Catalytic Converter
204	Overfire Air
205	Low Nox Burners
206	Dry Sorbent Injection
207	Carbon Injection
208	Freeboard Refrigeration Device
209	Gravity Collector
210	Centrifugal Collector
211	Mist Eliminator
212	Steam Injection
213	Water Injection
214	Low Nitrogen Content Fuel
215	Flue Gas Desulfurization
216	Sulfuric Acid Plant
217	Dust Suppression
218	Electrostatic Spraying
219	Increased Monitoring Frequency (IMF) of PM Controls
220	CEM Upgrade and Increased Monitoring Frequency of PM Controls

For More Information

Missouri Department of Natural Resources Air Pollution Control Program P.O. Box 176 Jefferson City, MO 65102-0176 800-361-4827 or 573-751-4817 573-751-2706 www.dnr.mo.gov/env/apcp/index.html