Michigan Air Emissions Reporting System (MAERS)
HAZARDOUS AIR POLLUTANT
EMISSION CALCULATOR - Tier 4
Default Control Efficiency

DEVICE_NAME	POLLUTANT_NAME	DEFAULT CONTROL EFFICIENCY
Freeboard Refrigeration Device	1,1,1-Trichloroethane	3.95
Catalytic Oxidizer	1,1,2-Trichloroethane	89
Afterburner	1,2,3,4,6,7,8 - Heptachlorodibenzofuran	99.21
Afterburner	1,2,3,4,6,7,8 - Heptachlorodibenzo-p-Dioxin	99.51
Electrostatic Precipitator	1,2,3,4,6,7,8 heptachlorodibenzo-p-dioxin	7
Electrostatic Precipitator	1,2,3,4,6,7,8-heptachlorodibenzofuran	29
Fabric Filter	1,2,3,4,6,7,8-Heptachlorodibenzofuran	40.91
Fabric Filter	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	85.88
Afterburner	1,2,3,4,7,8 - Hexachlorodibenzofuran	98.72
Afterburner	1,2,3,4,7,8 - Hexachlorodibenzo-p-Dioxin	99.42
Afterburner	1,2,3,4,7,8,9 - Heptachlorodibenzofuran	99.21
Fabric Filter	1,2,3,4,7,8-Hexachlorodibenzofuran	25.93
Afterburner	1,2,3,6,7,8 - Hexachlorodibenzofuran	98.72
Afterburner	1,2,3,6,7,8 - Hexachlorodibenzo-p-Dioxin	99.42
Afterburner	1,2,3,7,8 Pentachlorodibenzofuran	99.01
Afterburner	1,2,3,7,8,9 - Hexachlorodibenzofuran	98.72
Afterburner	1,2,3,7,8,9 - Hexachlorodibenzo-p-Dioxin	99.42
Afterburner	1,2,3,7,8-Pentachlorobenzo-p-Dioxin	99.31
Afterburner	2,3,4,6,7,8 - Hexachlorodibenzofuran	98.72
Electrostatic Precipitator	2,3,4,6,7,8-hexachlorodibenzofuran	35
Afterburner	2,3,4,7, 8 Pentachlorodibenzofuran	99.01
Afterburner	2,3,7,8 - Tetrachlorodibenzofuran	98.56
Afterburner	2,3,7,8 - Tetrachlorodibenzo-p-Dioxin	99.69
Dry Sorbent Injection	2,3,7,8 -Tetrachlorodibenzo-p-Dioxin	95.9
Wet Scrubber	2,3,7,8-Tetrachlorodibenzofuran	94.75
Venturi Scrubber	2,3,7,8-Tetrachlorodibenzofuran	92.33
Single Cyclone	2,3,7,8-Tetrachlorodibenzofuran	99.08
Dry Sorbent Injection	2,3,7,8-Tetrachlorodibenzofuran	98.97
Spray Dryer	2,3,7,8-Tetrachlorodibenzofuran	97.03
Electrostatic Precipitator	2,3,7,8-tetrachlorodibenzofuran	38
Fabric Filter	2,3,7,8-Tetrachlorodibenzofuran	83.96
Fabric Filter	2,3,7,8-Tetrachlorodibenzo-p-dioxin	87.71
Electrostatic Precipitator	2,3,7,8-Tetrachlorodibenzo-p-dioxin	50.98
Spray Dryer	2,3,7,8-Tetrachlorodibenzo-p-dioxin	60.95
Dry Sorbent Injection	2,3,7,8-Tetrachlorodibenzo-p-dioxin	99.05
Baghouse	2-Methylnaphthalene	46
Venturi Scrubber	2-Nitrophenol	80
Single Cyclone	2-Nitrophenol	93.66
Baghouse	Acenanaphthene	66
Baghouse	Acenaphthylene	69
Venturi Scrubber	Acetaldehyde	79.38
Thermal Oxidizer	Acetaldehyde	83.9

DEVICE_NAME	POLLUTANT_NAME	DEFAULT CONTROL EFFICIENCY
Low NOx Burners	Acetaldehyde	44.77
Catalytic Oxidizer	Acetaldehyde	1.61
Wet Scrubber	Acetic Acid	37.78
Venturi Scrubber	Acetone	29.09
Thermal Oxidizer	Acetone	75.76
Venturi Scrubber	Acetonitrile	72.97
Venturi Scrubber	Acetylene dichloride	44.44
Venturi Scrubber	Acrylonitrile	33.64
Single Cyclone	Acrylonitrile	99.4
Scrubber	Acrylonitrile	99.6
Incinerator	Acrylonitrile	98
Flaring	Acrylonitrile	98
Incinerator	Allyl chloride	98
Spray Dryer	Aluminum	99.45
Single Cyclone	Aluminum	99.8
Venturi Scrubber	Aluminum	62.5
Electrostatic Precipitator	Aluminum	84.12
Scrubber	Ammonia	49.76
Flaring	Ammonia	99
Baghouse	Anthracene	95
Wet Electrostatic Precipitator	Antimony	95
Venturi Scrubber	Antimony	92
Fabric Filter	Antimony	90
Spray Dryer	Antimony	99.1
Wet Scrubber	Antimony	40
Electrostatic Precipitator	Antimony	85
Baghouse	Antimony	90
Single Cyclone	Antimony	78.67
Dry Scrubber	Antimony	80
Dry Scrubber	Arsenic	80
Fabric Filter	Arsenic	78.03
Flue Gas Desulfurization	Arsenic	69
Baghouse	Arsenic	90
Wet Scrubber	Arsenic	40
Spray Dryer	Arsenic	99.8
Single Cyclone	Arsenic	97.87
Venturi Scrubber	Arsenic	93.18
Wet Electrostatic Precipitator	Arsenic	95
Electrostatic Precipitator	Arsenic	94.74
Dry Sorbent Injection	Arsenic	96.95
Fabric Filter	Barium	98.25
Spray Dryer	Barium	99.78

DEVICE_NAME	POLLUTANT_NAME	DEFAULT CONTROL EFFICIENCY
Single Cyclone	Barium	99.3
Electrostatic Precipitator	Barium	50
Venturi Scrubber	Barium	78.67
Thermal Oxidizer	Benzene	67.77
Incinerator	Benzene	98
Single Cyclone	Benzene	94.17
Flaring	Benzene	94
Catalytic Reduction	Benzene	92.4
Activated Carbon Adsorption	Benzene	93
Catalytic Converter	Benzo (a) anthracene	83.07
Scrubber	Benzo (a) pyrene	98.52
Knock Out Box	Benzo (a) pyrene	98.74
Incinerator	Benzo (a) pyrene	99.99
Baghouse	Benzo(a)anthracene	96
Baghouse	Benzo(a)pyrene	94
Baghouse	Benzo(b)fluoranthene	98
Baghouse	Benzo(e)pyrene	98
Baghouse	Benzo(g,h,i)perylene	99
Baghouse	Benzo(k)fluoranthene	98
Flue Gas Desulfurization	Berylium	73
Fabric Filter	Beryllium	77.33
Spray Dryer	Beryllium	87.9
Wet Scrubber	Beryllium	50
Dry Scrubber	Beryllium	60
Venturi Scrubber	Beryllium	98.22
Single Cyclone	Beryllium	94
Electrostatic Precipitator	Beryllium	97
Wet Electrostatic Precipitator	Beryllium	97
Baghouse	Beryllium	95
Wet Electrostatic Precipitator	Cadmium	95
Electrostatic Precipitator	Cadmium	93.18
Fabric Filter	Cadmium	91.13
Dry Sorbent Injection	Cadmium	98.42
Spray Dryer	Cadmium	99.44
Catalytic Reduction	Cadmium	60.57
Wet Scrubber	Cadmium	40
Flue Gas Desulfurization	Cadmium	38
Single Cyclone	Cadmium	18.92
Venturi Scrubber	Cadmium	89.09
Baghouse	Cadmium	81
Dry Scrubber	Cadmium	80
Venturi Scrubber	Calcium	62.86

DEVICE_NAME	POLLUTANT_NAME	DEFAULT CONTROL EFFICIENCY
Electrostatic Precipitator	Calcium	50
Fabric Filter	Calcium	99.9
Single Cyclone	Calcium	99.83
Direct Flame Afterburner with H	Carbon Monoxide	99
Flaring	Carbon Monoxide	98
Catalytic Reduction	Carbon Monoxide	90
SNCR	Carbon Monoxide	90
Catalytic Afterburner	Carbon Monoxide	90
Activated Carbon Adsorption	Carbon Monoxide	95
Direct Flame Afterburner	Carbon Monoxide	95
Catalytic Oxidizer	Carbon Monoxide	94.5
Thermal Oxidizer	Carbon Monoxide	96
SCR	Carbon Monoxide	52.06
Overfire Air	Carbon Monoxide	51.67
Low NOx Burners	Carbon Monoxide	5.86
Flue Gas Recirculation	Carbon Monoxide	5
Clean Burn	Carbon Monoxide	21.05
Pre-Combustion Chamber	Carbon Monoxide	81.71
Single Cyclone	Carbon Tetrachloride	30
Thermal Oxidizer	Carbon tetrachloride	92.33
Condenser	Carbon tetrachloride	92.13
Wet Scrubber	Chlorine	90
Venturi Scrubber	Chlorobenzene	20
Incinerator	Chlorobenzene	98
Single Cyclone	Chlorobenzene	99.2
Dry Sorbent Injection	Chlorodibenzo-p-dioxin, chlorodibenzofurans, total	93.67
Electrostatic Precipitator	Chlorodibenzo-p-dioxin, chlorodibenzofurans, total	29.94
Spray Dryer	Chlorodibenzo-p-dioxin, chlorodibenzofurans, total	86.06
Catalytic Oxidizer	Chloroform	78
Single Cyclone	Chloroform	33.33
Flue Gas Desulfurization	Chromium	55
Dry Scrubber	Chromium	60
Wet Scrubber	Chromium	50
Baghouse	Chromium	72
Fabric Filter	Chromium	84.29
Venturi Scrubber	Chromium	94
Dry Sorbent Injection	Chromium	91.26
Single Cyclone	Chromium	91.15
Wet Electrostatic Precipitator	Chromium	96
Electrostatic Precipitator	Chromium	94.98
Scrubber	Chromium	99.63
Spray Dryer	Chromium	98.46

DEVICE_NAME	POLLUTANT_NAME	DEFAULT CONTROL EFFICIENCY
Single Cyclone	Chromium (VI)	51.32
Low NOx Burners	Chrysene	37.5
Baghouse	Chrysene	97
Fabric Filter	Cobalt	99.7
Venturi Scrubber	Cobalt	50
Electrostatic Precipitator	Cobalt	57.78
Single Cyclone	Cobalt	77.78
Spray Dryer	Copper	99.73
Fabric Filter	Copper	98.63
Electrostatic Precipitator	Copper	97.75
Baghouse	Copper	95.42
Single Cyclone	Copper	95.375
Venturi Scrubber	Copper	95.08
Catalytic Oxidizer	Cumene	97
Activated Carbon Adsorption	Cyclohexanone	90.1
Baghouse	Dibenzo(a,h)anthracene	99
Single Cyclone	Dichloromethane	25
Catalytic Oxidizer	Diisobutyl Ketone	95
Single Cyclone	Dioctyl phthalate	95.79
Venturi Scrubber	Dioctyl phthalate	53.61
Catalytic Oxidizer	Ethylbenzene	99
Single Cyclone	Ethylbenzene	99.625
Incinerator	Ethylene dichloride	97.49
Activated Carbon Adsorption	Ethylene dichoride	99
Baghouse	Fluoranthene	84
Baghouse	Fluorene	90
Electrostatic Precipitator	Fluoride	86
Spray Tower	Fluoride	81.37
Venturi Scrubber	Fluoride	97.69
Wet Electrostatic Precipitator	Fluoride	95.92
Dry Scrubber	Fluoride	96.87
Scrubber	Fluoride	92.62
Multiple Cyclones	Fluorides	51.38
Dry Scrubber	Fluorides, Total	95.25
Catalytic Reduction	Formaldehyde	97.18
Low NOx Burners	Formaldehyde	98.39
Flue Gas Recirculation	Formaldehyde	99.9
Catalytic Oxidizer	Formaldehyde	55.7
Incinerator	Formaldehyde	8.33
Flaring	Formaldehyde	81.91
Thermal Oxidizer	Formaldehyde	77.25
Venturi Scrubber	Formaldehyde	75.71

DEVICE_NAME	POLLUTANT_NAME	DEFAULT CONTROL EFFICIENCY
Wet Scrubber	Formaldehyde	73.57
Electrostatic Precipitator	Gold	70
Venturi Scrubber	Gold	66.67
Fabric Filter	Gold	93.33
Wet Scrubber	HCl	95
Venturi Scrubber	Heptachlorodibenzofurans, total	91.46
Single Cyclone	Heptachlorodibenzofurans, total	99.81
Fabric Filter	Heptachlorodibenzofurans, total	73.68
Fabric Filter	Heptachlorodibenzo-p-dioxins, total	73.24
Single Cyclone	Heptachlorodibenzo-p-dioxins, total	99.76
Venturi Scrubber	Heptachlorodibenzo-p-dioxins, total	95.59
Venturi Scrubber	Hexachlordibenzo-p-dioxins, total	45.71
Venturi Scrubber	Hexachlorodibenzofurans, total	45
Single Cyclone	Hexachlorodibenzofurans, total	96.6
Wet Scrubber	HF	90
Spray Dryer	Hydrogen bromide	96.23
Spray Dryer	Hydrogen chloride	95.48
Dry Sorbent Injection	Hydrogen chloride	92.17
Fabric Filter	Hydrogen chloride	83.13
Scrubber	Hydrogen chloride	85.83
Spray Dryer	Hydrogen fluoride	67.88
Dry Sorbent Injection	Hydrogen fluoride	91.07
Activated Carbon Adsorption	Hydrogen sulfide	99
Flaring	Hydrogen Sulfide	98
Wet Scrubber	Hydrogen Sulfide	98
Wet Scrubber	Hydrogen sulfide	41.76
Baghouse	Ideno(1.2.3-cd)pyrene	98
Single Cyclone	Iron	99.61
Fabric Filter	Iron	99.9
Venturi Scrubber	Iron	91.27
Electrostatic Precipitator	Iron	95.45
Catalytic Oxidizer	Isophorone	95
Wet Electrostatic Precipitator	Lead	95
Mat or Panel Filter	Lead	90
Baghouse	Lead	90
Wet Suppression	Lead	90
Spray Dryer	Lead	99.71
Dry Sorbent Injection	Lead	99.06
Electrostatic Precipitator	Lead	98.41
Flue Gas Desulfurization	Lead	57
Wet Scrubber	Lead	40
Fabric Filter	Lead	82.02

DEVICE_NAME	POLLUTANT_NAME	DEFAULT CONTROL EFFICIENCY
Single Cyclone	Lead	67
Venturi Scrubber	Lead	79.34
Dry Scrubber	Lead	80
Single Cyclone	Magnesium	99
Fabric Filter	Magnesium	99.9
Electrostatic Precipitator	Magnesium	93.57
Venturi Scrubber	Magnesium	97
Thermal Oxidizer	Maleic Anhydride	96
Catalytic Oxidizer	Maleic Anhydride	95
Fabric Filter	Manganese	95
Venturi Scrubber	Manganese	94.28
Electrostatic Precipitator	Manganese	95.36
Scrubber	Manganese	96.88
Single Cyclone	Manganese	93.22
Flue Gas Desulfurization	Manganese	50
Wet Electrostatic Precipitator	Mercury	60
Dry Sorbent Injection	Mercury	52.3
Electrostatic Precipitator	Mercury	19
Scrubber	Mercury	6
Venturi Scrubber	Mercury	18
Flue Gas Desulfurization	Mercury	85
Catalytic Oxidizer	Methanol (Methyl Alcohol)	90
Thermal Oxidizer	Methyl alcohol	92.1
Venturi Scrubber	Methyl alcohol	37.5
Incinerator	Methyl chloride	98
Activated Carbon Adsorption	Methyl Ethyl Ketone	99
Catalytic Oxidizer	Methyl Isobutyl Ketone (MEK)	95
Activated Carbon Adsorption	m-Xylene	97.9
Single Cyclone	Naphalene	89.44
Catalytic Converter	Naphthalene	86.12
Low NOx Burners	Naphthalene	35.22
Baghouse	Naphthalene	51
Flaring	Naphthalene	99
Activated Carbon Adsorption	n-Hexane	72.7
Dry Sorbent Injection	Nickel	88.16
Flue Gas Recirculation	Nickel	40.62
Spray Dryer	Nickel	97.89
Venturi Scrubber	Nickel	94.56
Single Cyclone	Nickel	92.79
Electrostatic Precipitator	Nickel	93.36
Fabric Filter	Nickel	90.85
Tray-Type Gas Absorption Colum	Nitrogen Oxides	91

DEVICE_NAME	POLLUTANT_NAME	DEFAULT CONTROL EFFICIENCY
Activated Carbon Adsorption	Nitrogen Oxides	95
Increased Air/Fuel Ratio with Int	Nitrogen Oxides	45
Staged combustion	Nitrogen Oxides	50
SNCR	Nitrogen Oxides	50
Low NOx Burners	Nitrogen Oxides	50
Flue Gas Recirculation	Nitrogen Oxides	55
Direct Flame Afterburner	Nitrogen Oxides	60
Reduced Combustion - Air Prehe	Nitrogen Oxides	60
Control of % O2 in Combustion A	Nitrogen Oxides	20
Ammonia Injection	Nitrogen Oxides	30
Overfire Air	Nitrogen Oxides	25
Low Excess Air Firing	Nitrogen Oxides	15
Ozonation	Nitrogen Oxides	82
Low Nitrogen Content Fuel	Nitrogen Oxides	70
Water Injection	Nitrogen Oxides	65.6
Pre-Combustion Chamber	Nitrogen Oxides	69.06
Clean Burn	Nitrogen Oxides	69.3
Afterburner	Nitrogen Oxides	80
Steam Injection	Nitrogen Oxides	80
Catalytic Reduction	Nitrogen Oxides	77.21
SCR	Nitrogen Oxides	77
Wet Scrubber	Octachlorobenzofuran	99.34
Afterburner	Octachlorodibenzofuran	99.26
Wet Scrubber	Octachlorodibenzofurans, total	99.34
Venturi Scrubber	Octachlorodibenzofurans, total	98.67
Afterburner	Octachlorodibenzo-p-Dioxin	98.94
Single Cyclone	Octachlorodibenzo-p-dioxins, total	99.08
Fabric Filter	Octachlorodibenzo-p-dioxins, total	99.07
Venturi Scrubber	Octachlorodibenzo-p-dioxins, total	94.86
Single Cyclone	Octachorodibenzofurans, total	99.86
Venturi Scrubber	o-Dichlorobenzene	48.64
Activated Carbon Adsorption	o-Xylene	98.4
Single Cyclone	p-Dichlorobenzene	98.29
Venturi Scrubber	p-Dichlorobenzene	41.45
Single Cyclone	Pentachlorodibenzofurans, Total	98.9
Venturi Scrubber	Pentachlorodibenzofurans, Total	99.87
Venturi Scrubber	Perchloroethylene	50
Flaring	Perchloroethylene	50
Freeboard Refrigeration Device	Perchloroethylene	2.56
Single Cyclone	Perchloroethylene	25
Baghouse	Perylene	82
Baghouse	Phenanthrene	72

DEVICE_NAME	POLLUTANT_NAME	DEFAULT CONTROL EFFICIENCY
Thermal Oxidizer	Phenol	45.7
Catalytic Oxidizer	Phenol	90
Venturi Scrubber	Phenol	91.81
Fabric Filter	Phosphorus (yellow or white)	91.01
Electrostatic Precipitator	Phosphorus (yellow or white)	98.16
Venturi Scrubber	Phosphorus (yellow or white)	98.3
Single Cyclone	Phosphorus (yellow or white)	97.63
Thermal Oxidizer	Phthalic Anhydride	92
Catalytic Oxidizer	Phthalic Anhydride	95
Wet Scrubber	PM Condensible	25
Fabric Filter	PM Condensible	25
Scrubber	PM, Condensable	10.88
Thermal Oxidizer	PM, Condensable	74.44
Tray-Type Gas Absorption Colun	PM10 Filterable	77
Direct Flame Afterburner	PM10 Filterable	70
Water Curtain	PM10 Filterable	70
Spray Tower	PM10 Filterable	71.5
Metal Fabric Filter Screen (Cottc	PM10 Filterable	81
Catalytic Oxidizer	PM10 Filterable	83
Catalytic Afterburner	PM10 Filterable	83
Dust Suppression	PM10 Filterable	85
Screen	PM10 Filterable	84
Process Enclosed	PM10 Filterable	89.7
Scrubber	PM10 Filterable	89
Gravel Bed Filter	PM10 Filterable	85.2
Gravity Collector	PM10 Filterable	10
Knock Out Box	PM10 Filterable	15
Centrifugal Collector	PM10 Filterable	16.5
Mechanical Collector	PM10 Filterable	23.51
Dynamic Separator (Dry)	PM10 Filterable	30
Mat or Panel Filter	PM10 Filterable	50
Baffle	PM10 Filterable	60
Multiple Cyclones	PM10 Filterable	55.7
Single Cyclone	PM10 Filterable	65
Thermal Oxidizer	PM10 Filterable	62
Flaring	PM10 Filterable	61.5
Mist Eliminator	PM10 Filterable	95
Electrostatic Precipitator	PM10 Filterable	97
Liquid Filtration System	PM10 Filterable	95.9
Packed-Gas Absorption Column	PM10 Filterable	92
Dry Scrubber	PM10 Filterable	92.45
Flue Gas Recirculation	PM10 Filterable	90

DEVICE_NAME	POLLUTANT_NAME	DEFAULT CONTROL EFFICIENCY
Wet Scrubber	PM10 Filterable	90
Dry Electrostatic Granular Filter	PM10 Filterable	97.95
Fabric Filter	PM10 Filterable	98
High-Efficiency Particulate Air Fi	PM10 Filterable	99.97
Wet Electrostatic Precipitator	PM10 Filterable	99.25
Baghouse	PM10 Filterable	99.28
Venturi Scrubber	PM10, Filterable	83.62
Gravel Bed Filter	PM2.5 Filterable	84.9
Screen	PM2.5 Filterable	84.61
Catalytic Afterburner	PM2.5 Filterable	83
Catalytic Oxidizer	PM2.5 Filterable	83
Wet Scrubber	PM2.5 Filterable	82
Scrubber	PM2.5 Filterable	85
Dry Scrubber	PM2.5 Filterable	89.5
Packed-Gas Absorption Column	PM2.5 Filterable	61
Tray-Type Gas Absorption Colun	PM2.5 Filterable	61
Spray Tower	PM2.5 Filterable	61
Multiple Cyclones	PM2.5 Filterable	54.1
Mechanical Collector	PM2.5 Filterable	47.19
Dynamic Separator (Dry)	PM2.5 Filterable	30
Single Cyclone	PM2.5 Filterable	20
Gravity Collector	PM2.5 Filterable	10
Knock Out Box	PM2.5 Filterable	5
Centrifugal Collector	PM2.5 Filterable	2.2
High-Efficiency Particulate Air Fi	PM2.5 Filterable	99.97
Baghouse	PM2.5 Filterable	97.65
Wet Electrostatic Precipitator	PM2.5 Filterable	97.25
Fabric Filter	PM2.5 Filterable	97
Electrostatic Precipitator	PM2.5 Filterable	97
Dry Electrostatic Granular Filter	PM2.5 Filterable	94.97
Mist Eliminator	PM2.5 Filterable	94.5
Venturi Scrubber	PM2.5, Filterable	78.03
Wet Scrubber	Polychlorinated dibenzofurans	93.12
Spray Dryer	Polychlorinated dibenzofurans, total	91.67
Single Cyclone	Polychlorinated dibenzofurans, total	98.29
Dry Sorbent Injection	Polychlorinated dibenzofurans, total	98.9
Fabric Filter	Polychlorinated dibenzofurans, total	75.44
Venturi Scrubber	Polychlorinated dibenzofurans, total	75
Single Cyclone	Polychlorinated dibenzo-p-dioxins	99.35
Fabric Filter	Polychlorinated dibenzo-p-dioxins	96
Spray Dryer	Polychlorinated dibenzo-p-dioxins, total	94.79
Wet Scrubber	Polychlorinated dibenzo-p-dioxins, total	91.36

DEVICE_NAME	POLLUTANT_NAME	DEFAULT CONTROL EFFICIENCY
Dry Sorbent Injection	Polychlorinated dibenzo-p-dioxins, total	99.07
Venturi Scrubber	Polychlorinated dibenzo-p-dioxins, total	68.23
Electrostatic Precipitator	Polycyclic organic matter (POM)	83.51
Multiple Cyclones	Polycyclic organic matter (POM)	8.33
Knock Out Box	Polycyclic organic matter (POM)	93.45
Single Cyclone	Potassium	98.36
Venturi Scrubber	Potassium	87.27
Activated Carbon Adsorption	p-Xylene	97.7
Baghouse	Pyrene	72
Fabric Filter	Selenium	74.39
Venturi Scrubber	Selenium	79.97
Scrubber	Selenium	89.88
Electrostatic Precipitator	Selenium	91.93
Single Cyclone	Silicon	98.65
Venturi Scrubber	Silicon	87.06
Spray Dryer	Silver	33.54
Venturi Scrubber	Silver	62.31
Fabric Filter	Silver	99.9
Electrostatic Precipitator	Silver	97
Single Cyclone	Sodium	96.17
Fabric Filter	Sodium	99.9
Electrostatic Precipitator	Sodium	98.83
Venturi Scrubber	Sodium	70.21
Fabric Filter	Sulfur	98.33
Single Cyclone	Sulfur	99.45
Venturi Scrubber	Sulfur	96.94
Wet Lime Slurry Scrubbing	Sulfur Dioxide	95
Dual Alkali Scrubbing	Sulfur Dioxide	93
Dry Scrubber	Sulfur Dioxide	94
Magnesium Oxide Scrubbing	Sulfur Dioxide	90
Dry Limestone Injection	Sulfur Dioxide	90
Wet Limestone Injection	Sulfur Dioxide	90
Spray Dryer	Sulfur Dioxide	90
Flue Gas Desulfurization	Sulfur Dioxide	90
Sodium Carbonate Scrubbing	Sulfur Dioxide	90
Electrostatic Spraying	Sulfur Dioxide	99
Dry Sorbent Injection	Sulfur Dioxide	68
Electrostatic Precipitator	Sulfur Dioxide	66.41
SCR	Sulfur Dioxide	66
Single Cyclone	Sulfur Dioxide	80
Scrubber	Sulfur Dioxide	80
Wet Scrubber	Sulfur Dioxide	76

DEVICE_NAME	POLLUTANT_NAME	DEFAULT CONTROL EFFICIENCY
Venturi Scrubber	Sulfur Dioxide	85.77
Fabric Filter	Sulfur Dioxide	64.78
Sodium-Alkali Scrubbing	Sulfur Dioxide	50
Ozonation	Sulfur Dioxide	5
Spray Tower	Sulfur Dioxide	9.09
Spray Tower	Sulfur Oxides	9.09
Scrubber	Sulfur Oxides	39.29
Tray-Type Gas Absorption Colun	Sulfur Oxides	89.5
Sodium Carbonate Scrubbing	Sulfur Oxides	89
Sodium-Alkali Scrubbing	Sulfur Oxides	82.5
Wet Limestone Injection	Sulfur Oxides	79
Dry Sorbent Injection	Sulfur Oxides	65
Alkaline Fly Ash Scrubbing	Sulfur Oxides	72.5
Dual Alkali Scrubbing	Sulfur Oxides	90
Activated Carbon Adsorption	Sulfur Oxides	94
Ammonia Scrubbing	Sulfur Oxides	92.5
Magnesium Oxide Scrubbing	Sulfur Oxides	92
Flue Gas Desulfurization	Sulfur Oxides	94.5
Venturi Scrubber	Sulfuric Acid	66.67
Single Cyclone	Sulfuric Acid	45
Venturi Scrubber	Tetrachlorodibenzofurans, total	64.7
Spray Dryer	Tetrachlorodibenzofurans, total	60.1
Electrostatic Precipitator	Tetrachlorodibenzofurans, total	36.7
Fabric Filter	Tetrachlorodibenzofurans, total	87.85
Wet Scrubber	Tetrachlorodibenzofurans, total	93.82
Dry Sorbent Injection	Tetrachlorodibenzofurans, total	98.97
Single Cyclone	Tetrachlorodibenzofurans, total	97.06
Wet Scrubber	Tetrachlorodibenzo-p-dioxins, total	97.33
Single Cyclone	Tetrachlorodibenzo-p-dioxins, total	97.85
Dry Sorbent Injection	Tetrachlorodibenzo-p-dioxins, total	99.35
Fabric Filter	Tetrachlorodibenzo-p-dioxins, total	87.7
Spray Dryer	Tetrachlorodibenzo-p-dioxins, total	70.16
Electrostatic Precipitator	Tetrachlorodibenzo-p-dioxins, total	71.79
Catalytic Oxidizer	Tetrachloroethylene	81
Fabric Filter	Thallium	99.81
Fabric Filter	Tin	99.85
Electrostatic Precipitator	Tin	98.46
Venturi Scrubber	Tin	38.46
Single Cyclone	Tin	53.85
Electrostatic Precipitator	Titanium	98.2
Single Cyclone	Titanium	99.8
Fabric Filter	Titanium	99.9

DEVICE_NAME	POLLUTANT_NAME	DEFAULT CONTROL EFFICIENCY
Venturi Scrubber	Titanium	93.8
Wet Scrubber	Titanium tetrachloride	99
Flaring	Toluene	99
Incinerator	Toluene	98
Activated Carbon Adsorption	Toluene	97
Catalytic Oxidizer	Toluene	96
Single Cyclone	Toluene	56
Venturi Scrubber	Toluene	13.33
Baghouse	Total Mercury	54
Spray Dryer	Total Mercury	56.07
Carbon Injection	Total Mercury	70
Fabric Filter	Total Mercury	80
Wet Lime Slurry Scrubbing	Total Mercury	74
SCR	Total Mercury	95
Activated Carbon Adsorption	Total Mercury	90
Wet Scrubber	Total Mercury	90
Ozonation	Total Mercury	90
Incinerator	Trichloroethylene	96.71
Catalytic Oxidizer	Trichloroethylene	97.5
Scrubber	Trichloroethylene	69.27
Freeboard Refrigeration Device	Trichloroethylene	2.38
Electrostatic Precipitator	Vanadium	69.7
Venturi Scrubber	Vanadium	75.75
Fabric Filter	Vanadium	99.9
Single Cyclone	Vanadium	90.91
Catalytic Oxidizer	Vinyl chloride	93
Incinerator	Vinyl chloride	98.57
Single Cyclone	Vinyl chloride	84.62
Electrostatic Precipitator	Vinyl chloride	87.69
Venturi Scrubber	Vinyl chloride	43.07
Incinerator	Vinylidene chloride	80.64
Direct Flame Afterburner with H	Volatile Organic Compounds	81
Tray-Type Gas Absorption Colun	Volatile Organic Compounds	84.5
Packed-Gas Absorption Column	Volatile Organic Compounds	84
Reduced Combustion - Air Prehe	Volatile Organic Compounds	86
Process Enclosed	Volatile Organic Compounds	85
Dry Scrubber	Volatile Organic Compounds	85
Wet Scrubber	Volatile Organic Compounds	88
Vapor Recovery System (Includi	Volatile Organic Compounds	88
Mat or Panel Filter	Volatile Organic Compounds	89
Vapor Recovery Unit	Volatile Organic Compounds	77
Single Cyclone	Volatile Organic Compounds	74.12

Default Control Efficiency

DEVICE_NAME	POLLUTANT_NAME	DEFAULT CONTROL EFFICIENCY
Catalytic Afterburner with Heat	Volatile Organic Compounds	75
Water Curtain	Volatile Organic Compounds	79
Condenser	Volatile Organic Compounds	72
Spray Tower	Volatile Organic Compounds	72.5
Venturi Scrubber	Volatile Organic Compounds	45
Catalytic Reduction	Volatile Organic Compounds	50
SNCR	Volatile Organic Compounds	50
Dust Suppression	Volatile Organic Compounds	50
Conversion to Variable Vapor Sp	Volatile Organic Compounds	54.5
Flue Gas Recirculation	Volatile Organic Compounds	39.33
Flaring	Volatile Organic Compounds	98
Mist Eliminator	Volatile Organic Compounds	97.6
Conversion to Pressurized Tank	Volatile Organic Compounds	97
Thermal Oxidizer	Volatile Organic Compounds	92.7
Direct Flame Afterburner	Volatile Organic Compounds	90
Activated Carbon Adsorption	Volatile Organic Compounds	90
Scrubber	Volatile Organic Compounds	90
Afterburner	Volatile Organic Compounds	95
Electrostatic Precipitator	Volatile Organic Compounds	95
Incinerator	Volatile Organic Compounds	95
Catalytic Afterburner	Volatile Organic Compounds	94
Catalytic Oxidizer	Volatile Organic Compounds	94
Spray Dryer	Volatile Organic Compounds	94
Activated Clay Adsorption	Volatile Organic Compounds	94.5
Flaring	Xylene	99
Electrostatic Precipitator	Zinc	99.4
Single Cyclone	Zinc	62.3
Fabric Filter	Zinc	74.56
Venturi Scrubber	Zinc	85.33