

ControlDevice

* [Group 1]

ControlDeviceID: SCR2
DeviceType: Scrubber
DeviceName: Incinerator No. 2 Scrubber
Manufacture: Swemco, Inc.
Model:
DateManufactured: 1998
InstallationDate: 4/1998
ReasonForOperation: To comply with state or federal rule

-- Detail --:

Device Type: Scrubber

Control Unit ID: SCR2

Control Unit Name: Incinerator No. 2 Scrubber

Description: The venturi scrubber system consists of 4 stages: quencher, condenser, Venturi, and high efficiency mist eliminator. The quencher stage lowers the temperature of the incoming gas from the furnace. The condenser stages also lower the temperature, but also removes larger particles, condensables, and solubles. The venturi stage further removes pollutants followed by the mist eliminator, which captures residual dirty water droplets that may pass through the venturi process.

Manufacturer: Swemco, Inc.

Date Manufactured/Reconstruction: 1998

Installation Date: 4/1998

Designed Max. inlet gas flow (scfm): 2160

Scrubber Type: Venturi

Scrubbant Chemicals used: Water

Reason for Operation of this control device: To comply with state or federal rule

Inlet Gas Temperature(deg F): 950

Outlet Gas Temperature: 120

Unit: deg F

Pressure Drop(in.w.c.): 22.44

Scrubbant PH: 7

Scrubbant/Water FlowRate: 250

Unit: GPM

Scrubbant/Water Pressure at the nozzels(PSI): 3460

Comments: Scrubber flow rate varies between 100-300 gpm.

Metal control efficiency based on 1996 40 CFR 503 Performance Testing EPA technology listing for impingement plant scrubbers.

PM/PM10 Control Efficiency is estimated based on EPA technology listing for impingement plant scrubbers.

Pollutants not found in the Controlled Pollutant list search and control efficiencies include the following:

Arsenic Compounds (99.58%)

Beryllium Compounds (97.35%)

Chromium Compounds (99.9%)

Mercury Compounds (97.92%)

Nickel Compounds (99.78%)

PollutantID: 604

PollutantCd: PM

PollutantName: Particulate Matter (TSP)

SubstanceChemName: CAP1

SubDescription: Particulate Matter (TSP)

Efficiency: 90

PollutantID: 606

PollutantCd: PM-PM10

PollutantName: PM10 (Filt + Cond)

SubstanceChemName: CAP1

SubDescription: PM Primary (Filt + Cond)

Efficiency: 90

PollutantID: 577

PollutantCd: 93

PollutantName: Arsenic & Compounds (Inorganic Including Arsenic)

SubstanceChemName: HAP

SubDescription: Arsenic & Compounds (Inorganic Including Arsenic)

Efficiency: 99.58

PollutantID: 124

PollutantCd: 125

PollutantName: Cadmium & Compounds

SubstanceChemName: HAP

SubDescription: Cadmium & Compounds

Efficiency: 94.88

PollutantID: 614

PollutantCd: SO2

PollutantName: Sulfur Dioxide

SubstanceChemName: CAP1

SubDescription: Sulfur Dioxide

Efficiency: 0

PollutantID: 617

PollutantCd: VOC

PollutantName: Volatile Organic Compounds

SubstanceChemName: CAP1
SubDescription: Volatile Organic Compounds
Efficiency: 0
PollutantID: 244
PollutantCd: 195
PollutantName: Lead & Compounds
SubstanceChemName: HAP
SubDescription: Lead & Compounds
Efficiency: 99.61