

Cox Target Media, Inc.

Facility ID No. 1030240

Attachment No. 3

Operation and Maintenance Plan

TEC Systems Quantum 2000 Catalytic Oxidizer

Quantum 2000 Catalytic Oxidizer Operation & Maintenance Plan

Operating Parameters:

Minimum operating temperature - 600 degrees F

Maximum operating temperature - 1,100 degrees F

Minimum destruction Efficiency - 90%

Minimum exhaust flow rate - 2,700 scfm

Maintenance Timetable:

Weekly Checks

- 1) Check airflow screens in ductwork between dryer and oxidizer for debris.
- 2) Check for burned out indicator bulbs on control panel.
- 3) Check for gas leaks in the gas train and main gas line.

Monthly Checks

- 1) Check dampers for correct operation and linkages for tightness.
- 2) Check the burner linkage rod for the positions marked at initial start-up.
- 3) Check exhaust fan drive belts for correct alignment and belt tension. If adjustments are required, refer to maintenance sections 4-4 and 4-5 in oxidizer operating manual.
- 4) Check for exhaust fan and combustion fan noise.

Semi-Annual Checks

- 1) Check catalyst beds and top-off any beds not full. Refer to maintenance section 4-6 in oxidizer operating manual for the procedure for checking catalyst beds.
- 2) Check the flame rod and spark igniter. Refer to maintenance section 4-8 in oxidizer operating manual.
- 3) Check the exterior of the oxidizer and the heat exchanger. Checks for signs of hot spots or leakage (sapping). Contact MEGTEC Systems if such a problem exists.
- 4) Lubricate the exhaust fan motor bearings.

Annual Checks

- 1) Check fan and motor shafts for endplay. Endplay should not exceed .005".
- 2) Check all gaskets and seals. Replace if broken, brittle or leaking.

- 3) Inspect oxidizer for excessive temperature damage.
- 4) Remove sample cores of catalyst from the middle catalyst bed. Remove a short core from the top two inches of the bed and a long core from the bottom five inches of the bed. Mark the tops of each sample core.
- 5) Send catalyst core sample to MEGTEC Systems Pollution Abatement Laboratory or an alternative testing facility for analysis. If the sample tested exhibits significantly reduced activity levels when compared to fresh catalyst, Cox Target Media will carry out a one-hour stack test sampling the inlet and outlet of the oxidizer alternatively. The results of this test will be used to determine if the catalyst should be replaced.

Quantum 2000 Catalytic Oxidizer Spare Parts List

The following is a list of spare parts recommended by MEGTEC Systems that are located in the parts room at Cox Target Media. In the event that it is necessary to use any of these parts to maintain the oxidizer, new parts will be placed on order immediately. Depending upon availability, there may be short periods when stock levels are temporarily depleted.

Spare Parts held in stock:

Quantity	Part Number	Description
1	163514	Pilot Solenoid Valve
1	120265	Relay Socket
1	121038	KUP Relay
1	121800	ACF Relay (Flamepak Protection Control)
1	121801	SS100A Flame Pak
6	121965	Clear Lamp 6.3 volts
1	120212	Flame Rod 12 3/4' Standard
1	134031	Spark Igniter

The above list is considered to be the minimum number of parts required to be stored on site. Cox Target Media stores additional parts and supplies that may be required when bi-annual and annual inspections of the oxidizer are carried out.

Quantum 2000 Catalytic Oxidizer Operation and Maintenance Log

Year:

Monthly Checks:

Month	Technician	Check dampers for correct operation & linkages for tightness.	Check burner linkage rod for the positions marked at initial start-up.	Check exhaust fan drive belts for correct alignment and belt tension.	Check for exhaust fan and combustion fan noise.
January					
Date:					
February					
Date:					
March					
Date:					
April					
Date:					
May					
Date:					
June					
Date:					
July					
Date:					
August					
Date:					
September					
Date:					
October					
Date:					
November					
Date:					
December					
Date:					

Quantum 2000 Catalytic Oxidizer Operation and Maintenance Log

Year:

Semi-annual and Annual Checks

Comments

Semi-annual:		Technician:	
Check catalyst beds and top-off any beds not full. Refer to 4-6 in the maintenance section of the operating manual.		Date:	
Check flame rod and spark igniter Refer to 4-8 in the maintenance section of the operating manual		Technician:	
		Date:	
Check the exterior of the oxidizer and the heat exchanger. Check for signs of hot spots or leakage.		Technician:	
		Date:	
Lubricate exhaust fan motor bearings		Technician:	
		Date:	
Annual Checks:			
Check fan and motor shafts for endplay. Endplay should not exceed .005".		Technician:	
		Date:	
Check all gaskets and seals. Replace if broken, brittle or leaking.		Technician:	
		Date:	
Inspect oxidizer for excessive temperature damage.		Technician:	
		Date:	
Remove catalyst samples from the oxidizer following the procedure in the O & M Plan.		Technician:	
		Date:	
Send catalyst samples to testing laboratory.		Date Sent:	
Date results received:			

Additional Comments:

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