

Oklahoma Comprehensive Water Plan - Public Water Supply Planning Guide
 Table 4-10 (page 1 of 3): Ozone System

System Name						
Date of assessment (mm/dd/yyyy)						
OZONE GENERATION (additional forms if needed)						
Number of generators						
	1	2	3	4	5	6
Common/Official Identification: ¹						
Manufacturer						
Ozone generator service ²						
Feed gas supply temperature (°F)						
Feed gas supply pressure (psig)						
Ozone production capacity (ppd) ³						
Design gas flow rate (scfm at design temp)						
Power factor						
Cooling water design temperature (°F)						
Cooling water flow rate (OG + PSU) (gpm)						
Cooling water pressure (psig)						
Cooling water temperature rise (°F)						
Installation date (mm/dd/yyyy)						
Base effective useful life (years)						
Estimated remaining effective useful life (years)						
Replacement within next 5 years?						
LIQUID OXYGEN (LOX) STORAGE TANK (additional forms if needed)						
Number of units						
	1	2	3	4	5	6
Common/Official Identification ¹						
Tank capacity, gross (gal)						
Diameter of tank (feet)						
Height of tank (feet)						
Design pressure (psig)						
Operating pressure (psig)						
Inner container design						
Casing material						
Piping material						
Insulation						
Installation date (mm/dd/yyyy)						
Base effective useful life (years)						
Estimated remaining effective useful life (years)						
Replacement within next 5 years?						
AMBIENT LOX VAPORIZER (additional forms if needed)						
Number of units						
	1	2	3	4	5	6
Common/Official Identification ¹						
Capacity (standard cubic feet per hour [scfh] rating)						
Design temperature (°F)						
Design pressure (psig)						
Operating pressure (psig)						
Dimensions (in)	Length					
	Width					
	Height					
Material of construction						
Installation date (mm/dd/yyyy)						
Base effective useful life (years)						
Estimated remaining effective useful life (years)						
Replacement within next 5 years?						

Table 4-10 (page 2 of 3): Ozone System

CHILLER (additional forms if needed)						
Number of units						
	1	2	3	4	5	6
Common/Official Identification:						
Type of Chiller						
Capacity, nominal (tons)						
Electric Service						
Volts						
Phase						
Hertz						
Chilled water flow rate (1 generator and PSU) (gpm)						
Chilled water inlet temperature (°F)						
Chilled water outlet temperature (°F)						
Chilled water pressure drop (psig)						
Design ambient temperature (°F)						
Installation date (mm/dd/yyyy)						
Base effective useful life (years)						
Estimated remaining effective useful life (years)						
Replacement within next 5 years?						
OZONE CONTACTORS (additional forms if needed)						
Number of tanks						
	1	2	3	4	5	6
Common/Official Identification ¹						
Type of tank						
Detention time, each tank (time at flow rate)						
Baffling factor						
Volume of tank						
Dimensions (feet)						
Length						
Width						
Height						
Side water depth (feet)						
Number of off-gas destruct units						
Number of off-gas fans						
	1	2	3	4	5	6
Common/Official Identification ¹						
Type of off-gas fan						
Capacity, each (scfm)						
Minimum fan static pressure rating (inches of water)						
Motor horsepower, each (hp)						
Electric Service						
Volts						
Phase						
Hertz						
Maximum fan speed (rpm)						
Installation date (mm/dd/yyyy)						
Base effective useful life (years)						
Estimated remaining effective useful life (years)						
Replacement within next 5 years?						

Table 4-10 (page 3 of 3): Ozone System

SIDE STREAM INJECTION SYSTEM (additional forms if needed)						
	1	2	3	4	5	6
Type (Common/Official Identification ¹)						
Pipeline operating pressure (psig)						
Applied ozone dose (mg/L)						
Ozone gas concentration						
Expected ozone demand ratio (mg/L/mg/L)						
Required ozone injection rate (lb/hr)						
Required ozone gas flow (scfm)						
Calculated gas/liquid ratio (Vg/Vl)						
Mass transfer efficiency (percent)						
Calculated ozone residual (mg/L)						
Number of sidestream pumps						
	1	2	3	4	5	6
Common/Official Identification ¹						
Pump type (separate form for each)						
Pump capacity, each (gpm)						
Pump head (ft TDH)						
Motor horsepower, each (hp)						
Electric Service	Volts					
	Phase					
	Hertz					
Maximum pump speed (rpm)						
Number of injectors						
	1	2	3	4	5	6
Common/Official Identification ¹						
Injector type (separate form for each)						
Injector size (inches)						
Inlet pressure (psig)						
Injector flow rate (gpm)						
Injector gas feed (scfm)						
Design back pressure (outlet pressure) (psig)						
Gas pressure (psig)						
Number of pipeline flash reactors						
	1	2	3	4	5	6
Common/Official Identification:						
Material Diameter (inches)						
Number of manifold nozzles						
	1	2	3	4	5	6
Common/Official Identification:						
Gas mixing velocity (fps)						
Installation date (mm/dd/yyyy)						
Base effective useful life (years)						
Estimated remaining effective useful life (years)						
Replacement within next 5 years?						
Perceived condition						

¹ How the equipment is normally referred to in this system, if applicable.

² Oxygen at concentration of O2 + concentration of N2.

³ Pounds per day at ozone concentration weight.