

<b>Equipment</b>	<b>Applicable Code/Standard/Industry Guidance</b>	<b>Documented Inspection Interval</b>
<b>Chainfalls, Hoists, Slings, Monorails &amp; Overhead Cranes</b>	CCPS–Plant Guidelines for Technical Management of Chemical Process Safety, Appendix 8B	Visual inspection every six months
<b>Compressors</b>	Manufacturer’s Recommendations	Typically, annual overspeed trip and continuous or periodic vibration monitoring
<b>Critical Electrical Distribution Equipment</b>	CCPS–Plant Guidelines for Technical Management of Chemical Process Safety, Appendix 8B	Per manufacturer’s Recommendations or internal history
<b>Fire Protection Equipment</b>	NFPA Codes (various), API 2001 Fire Protection in Refineries, UL Standards, Insurance Company Requirements	Daily–Mobile fire equipment visual only, heater visual check (cold weather only) Weekly–Portable fire extinguishers visual only Monthly–Sprinkler, alarm, foam & deluge systems visual only, riser flow test, heating systems test (cold weather only) Annually–Fire water headers & pumps flow testing, fire hoses pressure testing, foam chemical analysis
<b>Chemical Hoses</b>	CCPS–Plant Guidelines for Technical Management of Chemical Process Safety, Appendix 8B	Visual inspection every 6 months
<b>Critical Instruments</b>	ISA-S84.01 Application of Safety Instrumented Systems to the Process Industries	Frequency based on criticality & field reliability
<b>Storage Tanks High-Level Alarm Instruments</b>	API RP 2350	Annual test using manufacturer’s test procedure
<b>Critical Oxygen &amp; Continuous Process Analyzers</b>	API 550, Part II, Section 5	Frequency based on criticality & manufacturer recommendation
<b>Hazardous Chemical Process Piping</b>	ANSI B31.3 API RP 574, Section 5.1 API 570, Section 4	Class 1 (high-hazard) 5 years (visual & thickness) Class 2–5 years visual and 10 years thickness Class 3–10 years (visual & thickness) Injection Points–3 years (thickness) visual by class

<b>Equipment</b>	<b>Applicable Code/Standard/Industry Guidance</b>	<b>Documented Inspection Interval</b>
		Soil/air interfaces–visual & thickness by class
<b>Chlorine Piping</b>	Chlorine Institute Pamphlet 60	Annual comprehensive Semiannual visual Bimonthly preventative maintenance
<b>Flex Hoses &amp; Expansion Joints</b>	CCPS–Plant Guidelines for Technical Management of Chemical Process Safety, Appendix 8B	Annual external inspection
<b>Pumps</b>	CCPS–Plant Guidelines for Technical Management of Chemical Process Safety, Appendix 8B	Periodic visual inspection & vibration monitoring per manufacturer’s recommendations
<b>Spring-Loaded Relief Valves</b>	ASME Boiler & Pressure Vessel Code, Section 8–Pressure Vessels	Monthly–Block valve position and seat leakage Annually–Any dirty or corrosive gas service, any liquid service protected by rupture disc with knife blade, any hazardous liquid service 2 years–any water & steam service, clean liquid service, moderately clean gas service 3 years–Any clean, dry, and noncorrosive gas service 3-5 years–Any liquid service protected by rupture disc without knife blade
<b>Pilot-Operated Relief Valves</b>	ASME Boiler & Pressure Vessel Code, Section 8–Pressure Vessels	Monthly–Block valve position & seat leakage Annually–Hazardous chemicals, moderately clean gas service 2 years–Clean, dry & noncorrosive gas service, nonresidue/clean chemicals
<b>Boiler Relief Valves</b>	ASME Boiler & Pressure Vessel Code, Section 1–Power Boilers National Boiler Inspection Code, ANSI/NB 23 Appendix A, A-300	Low-pressure heating boilers & power boilers 400 psig–manual test monthly, pressure test annually Power boilers > 400 psig–Per operating history
<b>Chlorine Relief Valves</b>	ASME Boiler & Pressure Vessel Code, Section 8–Pressure Vessels,	Biannual or annual inspection based on field history

<b>Equipment</b>	<b>Applicable Code/Standard/Industry Guidance</b>	<b>Documented Inspection Interval</b>
<b>(nonrefrigerated chlorine storage)</b>	Chlorine Institute Pamphlet 5	
<b>Ammonia Relief Valves</b>	ASME Boiler & Pressure Vessel Code, Section 8, ANSI K61.1	Annual external inspection 5 years refurbish or replace
<b>Storage Tanks (atmospheric)</b>	API 620, API 650, UL 142	External—every 5 years or at $\frac{1}{4}$ of remaining corrosion-rate life, whichever is less Internal—Every 10 years if corrosion history is not available, every 20 years or based on corrosion rates if trending is available
<b>Manual Chlorine Block Valves (non-refrigerated service)</b>	Chlorine Institute Pamphlet 5	Every 2 years
<b>Safety-Critical Manual Block Valves</b>	Recognized & Accepted Good Engineering Practice	Every 3 years bench test or replace (based on field service)
<b>Pressure Vessels</b>	ASME Boiler & Pressure Vessel Code, Section 8, API RP 572, ANSI/NB-23, API 510	External—Every 5 years or at $\frac{1}{4}$ of remaining corrosion-rate life, whichever is less Internal—Every 10 years or at $\frac{1}{2}$ of remaining corrosion-rate life, whichever is less
<b>Boilers</b>	ASME Boiler & Pressure Vessel Code, Section 1—Power Boilers National Boiler Inspection Code ANSI/NB 23	Typically every 3-5 years (internal) as set by local jurisdictions
<b>Steam Deaerators</b>	ASME Boiler & Pressure Vessel Code, Section 8 – Pressure Vessels	Every 3 years—Internal visual inspection and wet fluorescent particle testing (may substitute radiographic or ultrasound)