

STATION INSPECTION SCHEDULE

Gas Station M. Service Type	Inspection Frequency	Governing Document	Form(s)	Comments
-----------------------------	----------------------	--------------------	---------	----------

Refer to the "Gas Transmission Maintenance Readme" for additional information and guidance.

**Actuators, Valve**

Pneumatic piston	Annually	TD-4430P-02	Valve Actuator Maintenance Record (Form TD-4430P-02-F03)	Stroke valve: examine for leaks and mechanical condition; if hydraulic manual override, replace fluid every 10 years.
Pneumatic motor	TBD/annually	TD-4430P-02	Valve Actuator Maintenance Record (Form TD-4430P-02-F03)	Refill lubricator based on usage; stroke valve: examine for leaks and mechanical condition.
Vane-type (hydraulic)	Annually	TD-4430P-02	Valve Actuator Maintenance Record (Form TD-4430P-02-F03)	Stroke valve and examine for mechanical condition; check oil level; every 10 years, replace hydraulic fluid.
Electrical motor	Annually	TD-4430P-02	Valve Actuator Maintenance Record (Form TD-4430P-02-F03)	Stroke valve: examine for mechanical condition.
Electro-hydraulic	Annually	TD-4430P-02	Valve Actuator Maintenance Record (Form TD-4430P-02-F03)	Stroke valve and examine for mechanical condition; check oil level; every 10 years, replace hydraulic fluid.

**Batteries**

Refer to Guideline G14293

**Chromatographs, Gas**

See WP4300-17

Gas Station Service Type	Inspection Frequency	Governing Document	Form(s)	Comments
<b>Compressors, Gas; and Drivers</b>				
Reciprocating compressor	Periodically			See manufacturer's literature.
Centrifugal compressor	Periodically			See manufacturer's literature.
Electric motor driver	Periodically			See manufacturer's literature.
Gas turbine driver	Periodically			See manufacturer's literature.
Reciprocating engine driver	Periodically			See manufacturer's literature.
Variable frequency driver	Periodically			See manufacturer's literature.
<b>Control Equipment, Miscellaneous</b>				
	Periodically			See manufacturer's literature.
<b>Control Philosophies</b>				
				Reference document
<b>Controllers</b>				
Electronic controllers	Annually	TD-4430P-02	Gas Facilities Station Maintenance Report (Form TD-4430P-02-F02)	
Pneumatic controllers (including Becker pilot)	Annually	TD-4430P-02	Gas Facilities Station Maintenance Report (Form TD-4430P-02-F02)	Alignment check

Gas Station M: Service Type	Inspection Frequency	Governing Document	Form(s)	Comments
<b>Dehydrators</b>	Monthly	TD-4430P-02	Dehydration Station Inspection Report (Form 62-3085a)	Refer to TD-4430P-02.
<b>Drips, Pipeline</b>	Periodically	WP4412-07	Pipeline Patrol and Work Report (Form F4412-07-01)	Frequency of draining depends on historical liquid volume experienced at each location.
<b>Electrical Power Equipment</b>				
Switchgear and switchboards	Periodically			See manufacturer's literature; inspecting and testing required.
Panel boards	Periodically			See manufacturer's literature; inspecting and testing required.
Motor control centers and starters	Periodically			See manufacturer's literature; inspecting and testing required.
Power cables	Periodically			See manufacturer's literature; inspecting and testing required.
Variable frequency drives	Periodically			See manufacturer's literature; inspecting and testing required.
Uninterruptible power supplies	Periodically			See manufacturer's literature; inspecting and testing required.
DC power equipment	Periodically			See manufacturer's literature; inspecting and testing required.

**Gas Station Facilities Inspection, Testing, and Maintenance, Attachment 2**

**Utility Procedure: TD-4430P-02**  
Effective 1/1/2010

Gas Station Service Type	Inspection Frequency	Governing Document	Form(s)	Comments
Standby generators and P units Generator	Periodically			See manufacturer's literature; inspecting and testing required.
Driver	Periodically			See manufacturer's literature; inspecting and testing required.
Transformers	Periodically			See manufacturer's literature; inspecting and testing required.
<b>Emergency Shutdown Systems (ESD)</b>	Annually			See manufacturer's literature; maintenance and testing are code-mandated.
<b>Filters, Strainers, and Scrubbers, Gas</b>	Annually	TD-4540P-04	Pilot-Operated Regulator Station Maintenance Record (Form TD-4540P-04-F02)	Differential check
<b>Fire Protection Systems/Equipment</b>	Periodically	TD-4430P-02		See Attachment 6 to TD-4430P-02.
<b>Gas Coolers</b>	Periodically			See manufacturer's literature.
<b>Gas Detectors</b>	Annually			See manufacturer's literature; maintenance and performance testing are code-mandated.

**Gas Station Facilities Inspection, Testing,  
and Maintenance, Attachment 2**

**Utility Procedure: TD-4430P-02**  
Effective 1/1/2010

Gas Station Facilities Inspection, Testing, and Maintenance, Attachment 2	Inspection Frequency	Governing Document	Form(s)	Comments
<b>Gas Saver Circuit</b>	Annually	TD-4430P-02	Gas Facilities Station Maintenance Report (Form TD-4430P-02-F02)	GSC is used to minimize bleed gas at valve positioner. Check operation; calibrate as required.
<b>Gas Supply Racks</b>				
Dehydrators	Annually	TD-4430P-02	Gas Facilities Station Maintenance Report (Form TD-4430P-02-F02)	
Filters	Annually	TD-4430P-02	Gas Facilities Station Maintenance Report (Form TD-4430P-02-F02)	
Regulators	Annually	TD-4430P-02	Gas Facilities Station Maintenance Report (Form TD-4430P-02-F02)	Class A Inspection - Annually; Class B Inspection for cause.
Reliefs	Annually	TD-4430P-02	Gas Facilities Station Maintenance Report (Form TD-4430P-02-F02)	Class A Inspection - Annually; Class B Inspection for cause.

Gas Station Meters/Service Type	Inspection Frequency	Governing Document	Form(s)	Comments
<b>Meters, Operational &amp; Fiscal</b>				
Orifice	Various	WP4300-07		
Ultrasonic	Various	WP4300-06		
Turbine	Various	WP4300-04		
Flow computer				
Mercury Electronic Correctors	Various	WP4300-02		
Total Flow	Various	WP4300-03		
Flow Computer				
<b>Positioners (Pneumatic / I/P)</b>				
	Annually	TD-4430P-02	Gas Facilities Station Maintenance Report (Form TD-4430P-02-F02)	Stroke valve: check calibration (3-15#).
<b>Pressure Recorders</b>				
	Annually	TD-4430P-02	Gas Facilities Station Maintenance Report (Form TD-4430P-02-F02)	3-point check: 0, mid-travel, full.
<b>Pressure Transducers/Transmitters</b>				
	Annually	TD-4430P-02	Gas Facilities Station Maintenance Report (Form TD-4430P-02-F02)	3-point check - 0, mid-travel or normal operating pressure, full.

**Gas Station Facilities Inspection, Testing, and Maintenance, Attachment 2**

**Utility Procedure: TD-4430P-02**  
Effective 1/1/2010

Gas Station Facility Service Type	Inspection Frequency	Governing Document	Form(s)	Comments
<b>Regulators</b>				
Self-contained (e.g. HPRs) Spring / weight	Annually	TD-4430P-02	Gas Facilities Station Maintenance Report (Form TD-4430P-02-F02)	Class A diagnostic annually; Class B for cause.
Pilot-operated Boot/diaphragm (Mooney, 399, Flexflo, etc.)	Class A: Annually Class B: 5 years	TD-4540P-04	Pilot-Operated Regulator Station Maintenance Record (Form TD-4550P-04-F02)	For a new regulator, internal inspection after the first year of installation, then a maximum of 5 years.
Globe (Fisher 1098, Rockwell 441, etc.)	Annually	TD-4430P-02	Gas Facilities Station Maintenance Report (Form TD-4430P-02-F02)	Class A diagnostic annually; Class B for cause.
Controller-operated 1/4 - turn valve Ball (Grove B-5, etc.)	Annually. Also, see standby/frequency-used regulator below for other requirements.	TD-4430P-02	Gas Facilities Station Maintenance Report (Form TD-4430P-02-F02)	Class A diagnostic annually; Class B for cause.
Plug (Rockwell, etc.)	Annually. Also, see standby/frequency-used regulator below for other requirements.	TD-4430P-02	Gas Facilities Station Maintenance Report (Form TD-4430P-02-F02)	Class A diagnostic annually; Class B for cause.

**Gas Station Facilities Inspection, Testing, and Maintenance, Attachment 2**

**Utility Procedure: TD-4430P-02**  
Effective 1/1/2010

Gas Facilities Station M/Service Type	Inspection Frequency	Governing Document	Form(s)	Comments
V-notch ball	Annually	TD-4430P-02	Gas Facilities Station Maintenance Report (Form TD-4430P-02-F02)	Class A diagnostic annually; Class B for cause.
Linear (Fisher, Masoneilan, Valtek, etc.)	Annually	TD-4430P-02	Gas Facilities Station Maintenance Report (Form TD-4430P-02-F02)	Class A diagnostic annually; Class B for cause.
Standby regulator and monitor	Monthly	WP4430-04	District's Week/Monthly Checklist	Inspect and partially operate.
Standby regulator and monitor	Biannually	WP4430-04	District's Week/Monthly Checklist	Inspect, partially operate, service, and lubricate (if required).
Frequently used regulator	As often as every 2 weeks	WP4430-04	District's Week/Monthly Checklist	Lubricate and inspect.
Frequently used regulator	As often as every 2 weeks	WP4430-04	District's Week/Monthly Checklist	Lubricate and inspect.
<b>Relief Devices</b>	Annually	WP4430-03	Gas Facilities Station Maintenance Report (Form TD-4430P-02-F02)	Maintenance, testing, and capacity review required.



Gas Station M: Service Type	Inspection Frequency	Governing Document	Form(s)	Comments
<b>SCADA RTUs</b>	Annually	TD-4430P-02	Gas Facilities Station Maintenance Report (Form TD-4430P-02-F02)	Clean, inspect power supply/battery.
<b>Separators, Gas</b>	Annually	TD-4430P-02		See TD-4430P-02.
<b>Valves (Manual)</b>				
Isolation and block Plug	Annually	WP4430-04	Valve Maintenance Record (Form F4430-04-1)	Inspect, service, lubricate (if required), and operate.
Isolation and block Ball	Annually	WP4430-04	Valve Maintenance Record (Form F4430-04-1)	Inspect, service, lubricate (if required), and operate.
Isolation and block Gate	Annually	WP4430-04	Valve Maintenance Record (Form F4430-04-1)	Inspect, service, and operate.
<b>Valves (Power-Actuated)</b>				
Isolation and block All types	Recommend biannually; minimum annually	WP4430-04	Valve Maintenance Record (Form F4430-04-1)	Inspect, service, lubricate (if required), and operate.
Security valves (auto-shutoff)	Annually	WP4430-04	Valve Maintenance Record (Form F4430-04-1)	
<b>Vaults</b>	Annually	S4446	Vault Inspection Record (Form F4446-2)	Containing regulating/limiting equipment and >200 cubic feet.