Utility Procedure: TD-4430P-02
Effective 09/30/2009

Station Fire Protection Systems/Equipment Routine

Expectations

- 1. Perform station inspection, testing, and maintenance work, and correct minor issues encountered.
- 2. Log issues and associated corrections in the Station Log Book.
- 3. If any issues need additional action, submit a work request and make a note under "Comments."
- 4. Complete the appropriate forms with each station visit and submit them to the appropriate supervisor.
- 5. Keep records on site for a minimum of 5 years.

The California Fire Code (invoked as law under <u>Titles 19 and 24</u> to the <u>California Code of Regulations</u>) requires various inspection, testing, and maintenance (IT&M) activities applicable to California Gas Transmission (CGT) facilities. The frequencies and requirements for these IT&M activities are contained in the National Fire Protection Association (NFPA) standards outlined below.

Fire Protection System or Equipment	NFPA Reference
Portable fire extinguishers	10
Foam extinguishing systems	11
Carbon dioxide extinguishing systems	12
Automatic halon extinguishing systems	12A
Sprinkler systems	13
Standpipe and hose	14
Water spray systems	15
Fire pumps	20
Water storage tanks	22
Water mains and hydrants	24
IT&M of water based systems	25
Detection and alarm systems	72
Clean agent (gaseous) systems	2001

The requirements and frequencies for the various IT&M activities from the documents listed above are summarized in the tables on the following pages.

Note: Activities that must be conducted by a qualified vendor licensed in the State of California are identified with an asterisk (*).

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Table 1. Monthly Inspections

System or Equipment	Sat.	Unsat.	Corrections?
Portable Fire Extinguishers			
General fire extinguisher inspection:			
Check the extinguisher to ensure it is fully charged (i.e., pressure indicated in the second se			
indicator is in the green zone) and in good overall condition. Check for obvious signs of physical damage (e.g., broken parts, cracked			
hose), corrosion, leakage, or prior use (i.e., broken seals or missing pins).			
 Portable extinguishers must be readily visible (or provided with signs), 			
accessible, and properly mounted in their designated locations.			
 Check the last service date. Log on the extinguisher tag the date of inspection and employee's name or LAN ID. 			
If damaged or otherwise found deficient, replace the extinguisher with an			
equivalent spare. Note any abnormal conditions found.			
Hydrants, Hose Stations (Hose Houses), Fire Department Connections			
Visually check the general condition of hydrants, hose stations, and fire			
department connections for obvious signs of damage and that access is free of obstructions.			
Visually check that hose houses are provided with required equipment (e.g.,		-	
hose, nozzles, wrench, adapters/fittings) and are free of damage.			
Sprinkler Systems (wet pipe, dry pipe, pre-action and water spray)			
Verify that all system gauges are in good condition, and system pressure is being maintained.			
Verify that control valves are in their proper position, and that access to the			
valves is free of obstructions (approximately 3 foot [ft] clearance). Visually check that alarm devices (e.g., horns/bells) are in good condition.		-	
Fire Water Supplies (pumps, tanks, feed from public main)		-	
Verify that all water supply control valves are secured open (i.e., by chains,	•••••		
seals, or tamper switches).			
Verify that fire pumps start automatically on low pressure.			
Detection (smoke, heat, UV/IR) and Alarms			
Verify that the fire alarm control panel (FACP) is in "normal-ready" mode.			
Inspect the back-up battery for signs of corrosion.			
Other Fire Extinguishing Systems (Hi-Ex foam, gaseous)			
Verify that all system components are in good condition, and the system is in normal mode.			
Refer to the manufacturer's instructions for additional requirements/guidance.			

Date:	Name:	
Comments:		
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Table 2. Quarterly Inspections

System or Equipment	Sat.	Unsat.	Corrections?
Portable Fire Extinguishers			
No additional requirements beyond the monthly inspections.			
Hydrants, Hose Stations (Hose Houses), Fire Department Connections			
No additional requirements beyond the monthly inspections.			
Sprinkler Systems (wet pipe, dry pipe, pre-action, and water spray)			
Verify sprinkler heads/spray nozzles are in good condition and that there are no obstructions (18" clearance) that could affect their spray pattern.			
Check the stock of spare sprinklers (orifice size and temp rating).			
Fire Water Supplies (pumps, tanks, feed from public main)			
No additional requirements beyond the monthly inspections.			
Detection (smoke, heat, UV/IR) and Alarms			
No additional requirements beyond the monthly inspections.			
Other Fire Extinguishing Systems (Hi-Ex foam, gaseous)			
* Have each system serviced Semi-Annually by a qualified vendor, or as specified in accordance with the manufacturer's instructions.			

* Note: These activities must be conducted by a State qualified vendo	* Note: Thes	se activities	must be	conducted by	a State	qualified	vendor
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Date:	Name:	
Comments:	_	

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Table 3. Annual Test and Maintenance

System or Equipment	Sat.	Unsat.	Corrections?
Portable Fire Extinguishers			
* Have each portable extinguisher serviced by a qualified vendor.			
Hydrants, Hose Stations (Hose Houses), Fire Department Connections (FDC)			
Remove caps on hydrants and FDCs to ensure the pipe is free of obstructions.			
Verify that hose rack/reel and nozzles operate smoothly.			
Remove the hose from the rack and check for mildew, cuts, abrasions, and other indication of deterioration. Re-rack the hose to ensure there are no kinks.			
Verify the hose hydrostatic test date (within 3-years) and service pressure.			
Sprinkler Systems (wet pipe, dry pipe, pre-action, and water spray)			
Operate the inspector's test valve to verify that local and remote water flow alarms activate within 90 seconds.			
Test all tamper switches or supervisory devices for receipt of trouble signals.			•••••••••••••••••••••••••••••••••••••••
Conduct a main drain test to verify the availability of adequate pressure (record static and residual pressures).			
Trip test water spray and pre-action valves.			
Fire Water Supplies (pumps, tanks, feed from public main)			
Conduct a fire pump test, and verify the pump operates within the pump curve.			
Cycle water supply and isolation valves to ensure they operate properly.			
Detection (smoke, heat, UV/IR) and Alarms	•••••••••••••••••••••••••••••••••••••••		***************************************
Test each initiating device (i.e., detectors, manual pulls) and verify proper operation of local horns/strobes.	•••••		
* Calibrate (sensitivity test) detectors in accordance with the manufacturer's instructions.	•••		
Verify that alarm signals (trouble and fire) are being monitored.			
Other Fire Extinguishing Systems (Hi-Ex foam, gaseous)			
* Have each system serviced Semi-Annually by a qualified vendor, or as specified in accordance with the manufacturer's instructions.			

" Note: These activities mus	t be conducted by	y a State qualified	vendor.
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Date:	Name:	
Comments:		

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Gas Station Facilities Inspection, Testing, and Maintenance Procedures, Attachment 6

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Table 4. 5-Year Service/Test

System or Equipment	Sat.	Unsat.	Corrections?
Portable Fire Extinguishers			
* Hydrostatic tests must be performed every 6 years for halon and dry chemical extinguishers and every 5 years for all other types of extinguishers.			
Hydrants, Hose Stations (Hose Houses), Fire Department Connections			
Back flush fire department connections to verify that there are no obstructions.	•		
Flow hydrants and verify the adequacy of the water supply (record flow and pressure).			
Sprinkler Systems (wet pipe, dry pipe, pre-action, and water spray)			
* Have a qualified vendor conduct a 5-year service.	1		
Inspect and clean the inside of alarm valves, including any strainers.	i		
Fire Water Supplies (pumps, tanks, feed from public main)			
Cycle post indicator valves, underground gate valves, and OS&Y valves to verify proper operation.	i		
Detection (smoke, heat, UV/IR) and Alarms			
No additional requirements.			
Other Fire Extinguishing Systems (Hi-Ex foam, gaseous)			
No additional requirements.	1		

^{*} Note: These activities must be conducted by a State qualified vendor.

Date:	Name:
Comments:	

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