



Pacific Gas and Electric Company

Gas Information Bulletin

Title: Testing of Gas Transmission Monitor Valves

Check all appropriate boxes

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| | Safety Alert | | Gas | | Distribution | Estimating |
| | Mandatory Compliance | X | Electric | X | Transmission | Mapping |
| X | Recommended Actions | | | X | Operations | Substation Engr. |
| X | Informational/Clarification | | | | Service | Trans./Sub. M&C |

PURPOSE:

The purpose of this Gas Information Bulletin is to restate the requirements of UO Standard 4432, *Station Inspection, Testing, and Maintenance*, issued February 2000, and to provide clarification on gas transmission monitor valves testing and GSO notification requirements.

SCOPE:

This bulletin applies to testing of CGT main gas transmission monitor valves including those CGT monitor valves maintained by the divisions (OM&C). This bulletin does not apply to gas distribution monitor valves.

REQUIREMENTS:

Monitor Setpoint

The establishment of the monitor valve setpoints is detailed in UO Standards 4125.2, *Establishing Setpoints On Overpressure Protection Devices*. Typically, the maximum monitor setpoint shall be set at 5 psig over the MOP for systems operating less than 250 psig and set at 10 psig over the MOP for systems operating equal to or greater than 250 psig. Based on experience, the monitor setpoints established in the UO Standard 4125.2 ensures that the monitor valve operates and controls the pressure below the maximum overpressure value of MOP +10% or pressure generating pipe stress of 75% SMYS, which ever is less.

The maximum main gas monitor valve setpoints for all major CGT facilities are listed in PG&E drawing 183018, "Overpressure Protection Device Settings".

Monitor Testing

Each monitor valve should be tested annually by raising the setpoint of the associated regulator valve until the monitor valve comes into control. This will enable to transmission technician to check the monitor setpoint and to observe the operation of the monitor in actual field condition. The monitor valve control tuning settings can be evaluated for adequate controllability. After satisfactorily controlling pressure through the monitor valve, the regulator setpoint must be reset back to the original settings. This is the preferred method for the testing the monitor valve.

Note: Normally, PG&E does not purposely operate over the pipeline's MOP. When testing monitor valves, it is acceptable to temporarily exceed the MOP; however, the pressure must be reset back to MOP (or lower) at the conclusion of the test.

In some instances, there may not enough inlet pressure is available to adequately test the monitor at its setpoint. In this case, the monitor controllability can be observed by lowering the monitor setpoint until the monitor takes over control. After satisfactorily controlling pressure through the monitor valve, return the monitor setpoint back to the original settings. The monitor setpoint can then be checked by simulating a pneumatic signal to the controller sensing line. Document that a false pneumatic signal was used to test the monitor in the "Remarks" section of the Station Maintenance form. (PLM may be modified to incorporate this information field on the annual testing of the individual monitors.) This will allow GSM&TS to track which monitor valves have not been tested and observed under full line pressure. For next year's annual monitor testing, consideration should be given to reschedule the testing when the inlet pressure is normally available. However, the maximum 15 months interval between testing must be met.

CAUTION:

During the testing of a monitor valve, the outlet pressure must be carefully observed to ensure that the downstream pressure does not exceed unacceptable limits! Typically, control valves will not prevent the pressure from increasing past its setpoint, especially when the valve initially begins to take over control. Under no circumstances shall the downstream pipeline ever exceed MOP plus 10% or a pressure that produces 75% SMYS, which ever is lower. If this operating error occurs, an abnormal operating condition results and the district or division is required to complete a GSM&TS Incident Report (CGT Safety Form 11). Based on experience, each monitor setpoint established by UO Standard 4125.2 ensures that the monitor valve operates and controls so that the pressure never exceeds the maximum overpressure limit. However, if the monitor is improperly tuned, the monitor may control erratically causing the pressure to spike over the allowable overpressure limit.

GSO Notification

Gas System Operations requires that CGT districts have an Authorization Clearance in place for testing monitor valves. A notification should be given to GSO 10-days prior to conducting the test on the monitor valve. GSO may need to modify the gas system's flow to accommodate the required pressures for the monitor testing. The district should work with the maintenance planner to ensure a 10-days notification is given.

The CGT monitor valves maintained by the divisions, the division is required to call GSO just prior to conducting work on the monitor. For some instances on local transmission, the pipeline pressure may not be adequate to test the monitor setpoint with actual line pressure. In these instances, the testing of the monitors will still be granted although the division should notify GSO 10 days prior to the next year's testing for these particular monitor valves.

Approved by:

Original Signed by

[Redacted Signature]

Date: 06/01/03

Author: [Redacted Name]

If you have any questions about this bulletin, please call the employee(s) listed below:

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