ALISTO ENGINEERING GROUP

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Safety Newsletter

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This Month's Topic: Gas Transmission Field Work Clearances

Gas Clearance procedures establish processes to ensure that field work is performed ***safely*** on pressurized gas, air, water, SCADA (Supervisory Control and Data Acquisition System) or energized electric systems for Pacific Gas & Electric Company natural gas facilities and associated equipment operating over 60 pounds per square inch gauge (psig).

Failure to clear equipment or a pipeline properly could pose a risk to employee and public safety. Please read the following carefully and thoroughly. Any deviation from these policies will result in the suspension of work on the project.

What is a clearance?

There are two types of gas facility clearances: System Clearances and Non-system Clearances. System clearances affect gas flow, gas quality, or the ability to monitor the flow of gas and pertain to shut downs of a line, valve maintenance and compressor maintenance. Non-system clearances include areas such as maintenance on standby generators or air compressors as well as filter changes and maintenance to gas supply racks where a backup supply is available.

In addition, there are two subtypes to the above clearances: New and Standard. New clearances refer to the tying in of a new pipeline or tapping and/or plugging a pipeline with a maximum allowable operating pressure (MAOP) greater than 60 psig. Standard clearances are routine and repetitive in nature and will generally refer to annual or corrective maintenance, operating any MAOP separation valve and all internal inspections on regulators.

Why are clearances important?

Clearances are important because they ensure the safety of personnel and equipment. The project manager or his designate should provide an outage schedule requiring a clearance to the Gas System Operation Department at least six weeks prior to a clearance date. A clearance for taking gas facilities, pipelines and equipment out of service is prepared by the facility maintenance group through this specific type documentation.

Procedures: The basics

Before starting any work requiring a clearance, the following must be performed by PG&E personnel trained in the Clearance Procedure:

- Obtain up-to-date reference drawings
- Obtain the clearance and ensure equipment is properly cleared and safe to work on
- Review Sequence of Operations with all personnel working under the clearance
- Tag all clearance points with Man-On-Line (MOL) tags
- Attach Caution Tags (CTs) to open valves, open vents, and drain valves
- "Report On"
- Perform the work
- Once the work is complete- "Report Off"
- Return the equipment back to service following the Sequence of Operations

Clearance Reporting

Each employee that "Reported On" a clearance must understand where all clearance points are located. The Clearance Supervisor formally reports On and Off clearances to the System Gas Control. The Clearance Supervisor is also responsible for reporting key communication steps including starting drafts, completing the drafts, start and completion of cross-compression, and of welding work.

Emergency Clearances

Gas Control personnel may authorize an emergency clearance with verbal notification and approval over the phone. Once the system is safe, no further work may proceed on the line until an Application for Gas Clearance is submitted and authorized.

"Safely clearing equipment for maintenance is a vital part of the Safety Process in PG&E. The Clearance Procedure is the process used to isolate equipment from energy sources. Employees and/or contractors should never operate equipment that has been cleared and has clearance tags hanging on the equipment. They should contact the Clearance Supervisor named on the tags for further information regarding the equipment"

–Jess Borrego
Alisto Project Manager

PG&E offers these tips for safe clearances:

- Have a clearly designated Clearance Supervisor for all clearances at all times.
- The Clearance Supervisor must notify System Gas Control of any changes.
- Non-emergency clearance should be submitted to GSO 10 working days prior to actual work
- If at any time an employee feels equipment being worked on is not properly cleared, work must stop and the Clearance Supervisor must be notified.
- Do not perform work under a clearance in "Test" status
- At major stations, a Caution Tag must be placed over a Man On Line tag on the Clearance Communications Board to indicate that the clearance is in "Test" status.
- Review and follow Utility Standard S4100
- **Do not perform work on equipment that is not properly cleared under any circumstances.**

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