FOR IMMEDIATE RELEASE

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Pacific Gas and Electric Company

Gas Information Bulletin

Title: HPR Atmospheric Corrosion Inspection Project

Check all appropriate boxes

- [ ] Safety Alert
- [x] Mandatory Compliance
- [ ] Recommended Actions
- [ ] Informational/Clarification
- [x] Gas
- [ ] Electric
- [ ] Estimating
- [x] Mapping
- [x] Distribution
- [ ] Transmission
- [ ] Operations
- [ ] Service
- [ ] Substation Engr.
- [ ] Trans./Sub. M&C
- [ ] Applicant Designer / Construction

Purpose

The purpose of this bulletin is to outline an inspection plan for performing and documenting atmospheric corrosion inspections of HPR-type stations. Specifically, this bulletin is to address atmospheric corrosion inspections on HPR-type stations serving one or two customers. HPR-type stations serving more than two customers are inspected under PG&E's district regulator station maintenance program, which can be found in procedure WP 4540-01, District Regulator Station Maintenance.

Background

In 2009, PG&E identified 4,734 High Pressure Regulator Stations (HPR-type stations) serving one or two customers that need to be inspected for atmospheric corrosion to ensure compliance with 49 CFR § 192.481, *Atmospheric corrosion control: Monitoring*. In order to satisfy this requirement, PG&E will inspect these HPR-type stations over the next two years, completing them in 2011.

49 CFR § 192.481, *Atmospheric corrosion control: Monitoring*, states:

(a) Each operator must inspect each pipeline or portion of pipeline that is exposed to the atmosphere for evidence of atmospheric corrosion, as follows:

If the pipeline is located:	**Then the frequency of inspection is:**
Onshore	At least once every 3 calendar years, but with intervals not exceeding 39 months

(b) During inspections the operator must give particular attention to pipe at soil-to-air interfaces, under thermal insulation, under disbonded coatings, at pipe supports, in splash zones, at deck penetrations, and in spans over water.
(c) If atmospheric corrosion is found during an inspection, the operator must provide protection against the corrosion as required by §192.479.

Once a periodic inspection program HPR-type stations is developed, the contents of this bulletin will be incorporated into a new procedure. At that time, the bulletin will be canceled. While Numbered Document H-10, "High Pressure Regulator - Type Stations"

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is not directly affected, it is being referenced because this bulletin implements an inspection program for this equipment.

Communication Plan

The primary audience for this bulletin is Gas Maintenance and Construction personnel, Gas Maintenance and Construction Supervisors, Gas Superintendents, and Gas Directors.

Implementation

Each Division will inspect one-half of its HPR-type stations in 2010, beginning with the higher risk HPR-type stations. Integrity Management has risk-ranked all of the HPR-type stations and will be communicating this ranking to the Divisions.

Inspectors must be qualified in the following OQs:

- 03-01.00 – Distribution Pipe Coatings – Tape/Paint
- 03-02.00 – Transmission Pipe Coatings – All
- 03-04.00 – Atmospheric Corrosion/Monitor

Tools:

- Thorpe Pipe Pit Gage
- Probe
- Shovel
- Metal Detector or Pipe Locator
- Pressure Gauge
- Meter Hot Change Tank

Procedures

Print Maps/Service Orders

There are two tools being provided to identify the HPR-type stations: HPR Atmospheric Corrosion Inspection Maps and Gas Service Records.

- HPR Atmospheric Corrosion Inspection Maps – These maps are 8 ½ by 11 maps that have aerial photos, gas piping, parcels, and addresses along with the HPR-type stations. An HPR-type station's approximate location appears as a red asterisk with a label that has an ID number and the address of the HPR-type station, if it could be ascertained.

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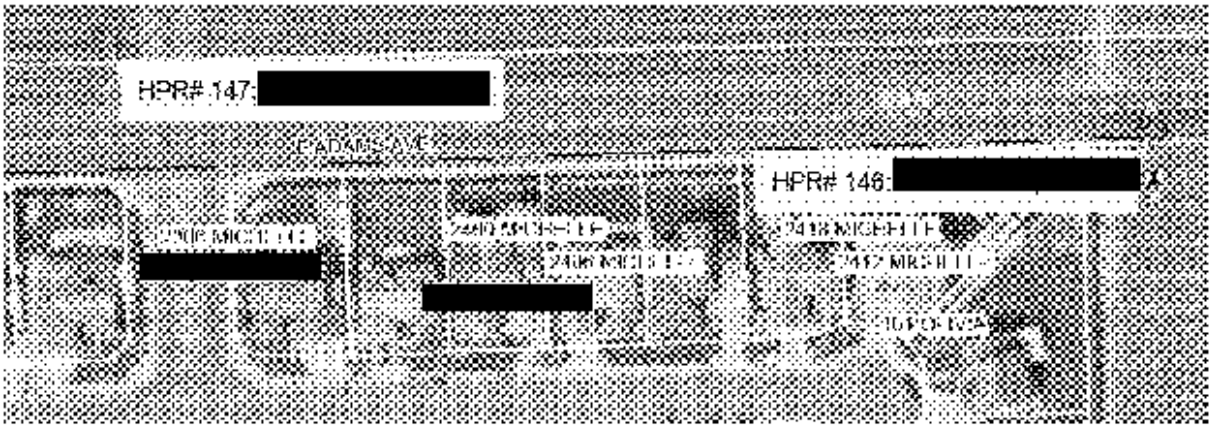

- Gas Service Records – GSRs provide more detail and a sketch that will help in finding difficult to locate HPR-type stations.

To obtain HPR Atmospheric Corrosion Inspection Maps and Service Records, click on this link: \\walnutcrk01\Mapping\RiskMgmt\Data Int Mgmt\Threats\Material or Welds\HPR\Priority 1 and 2 by Division\ .

This folder contains spreadsheets listing all the HPR-type stations that will be inspected in 2010, broken up by division.

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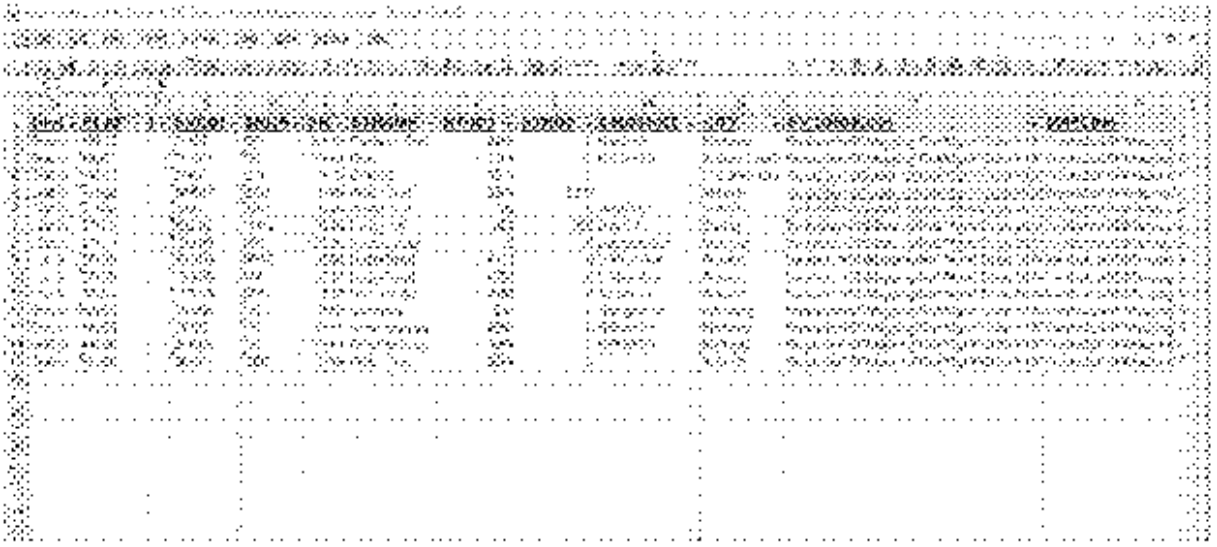
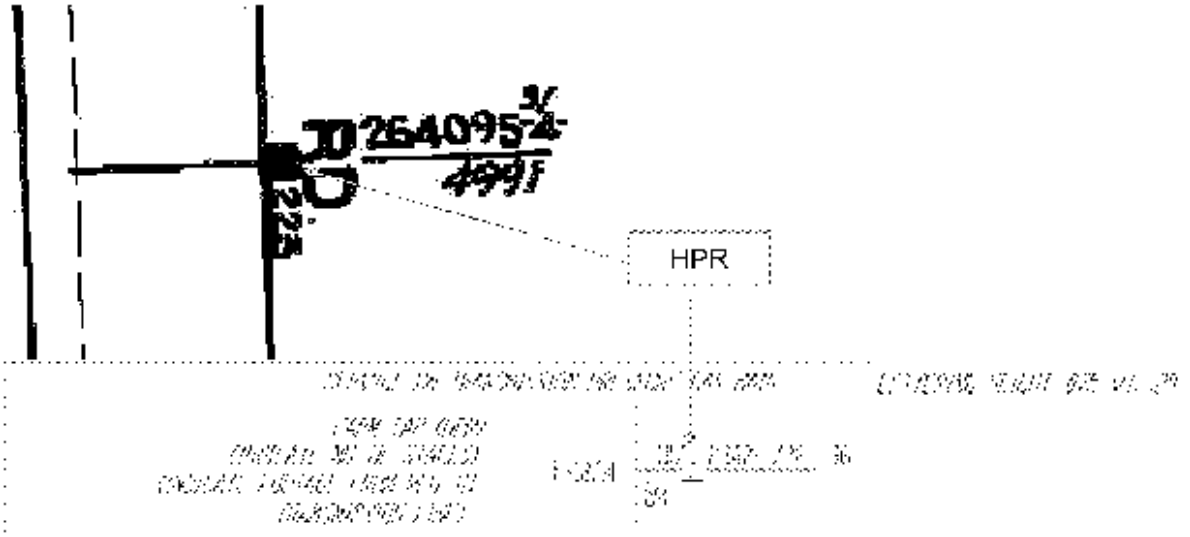
The spreadsheets contain links to the HPR Atmospheric Corrosion Maps and Service Records for each HPR-Type Station listed, along with location data and plat map number.



By clicking on the Service Order link, printing the Service Order, then opening and printing the corresponding Map link, the two will be matched up correctly.

In addition, Plat Sheets pulled from the Local Office can also be used to locate HPR-type stations.

- Plat Sheets – Use plat sheets to locate the HPR. On the plats, HPR-type stations appear as a box on the service or off the transmission line.



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Perform the Inspections

Inspect each HPR-Type Station for atmospheric corrosion, keeping in mind the purpose of these inspections is to comply with 49 CFR § 192.479, *Atmospheric corrosion control: General*, which provides as follows:

(a) Each operator must clean and coat each pipeline or portion of pipeline that is exposed to the atmosphere, except pipelines under paragraph (c) of this section.

(b) Coating material must be suitable for the prevention of atmospheric corrosion.

(c) Except portions of pipelines in offshore splash zones or soil-to-air interfaces, the operator need not protect from atmospheric corrosion any pipeline for which the operator demonstrates by test, investigation, or experience appropriate to the environment of the pipeline that corrosion will —

(1) Only be a light surface oxide; or

(2) Not affect the safe operation of the pipeline before the next scheduled inspection.

- Look at all of the components of the HPR-Type Station and pay particular attention to the regulator, the regulator's bolts, the relief valve and/or the monitor for active corrosion using *HPR Atmospheric Corrosion Inspection Job Aid* as needed to determine the presence of active corrosion.
    - For corrosion under 20% pit depth upstream of the regulator, and for corrosion less than 70% pit depth downstream of the regulator, no remedial action is necessary.
        - If corrosion is over 70% pit depth downstream, components need to be replaced.
        - For any corrosion over 20% pit depth upstream, contact Pipeline Engineering to evaluate.
    - If the Relief Valve needs to be replaced, it can be replaced in kind. If the regulator or monitor's bolts are severely corroded, however, the regulator or monitor needs to be replaced. See below for instructions on initiating repair/replacement.

      Caution: Do not wax tape the pressure taps, adjusting screws, or valves, since these need to be accessible for maintenance.

If corrosion is found but the HPR-Type Station is still compliant and does not require replacement of components, wire brush and/or recoat with wax tape. This is considered part of the inspection and does not require a separate Corrective Work Notification.

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Report CGIs to Supervisor

If the inspector cannot gain admittance (CGI) to the location due to situations such as locked gates or animals, contact the Supervisor. If the inspector cannot gain admittance due to situations such as buried facilities, heavy lids requiring two persons to remove or dewatering is required, inform the Supervisor that a Crew is needed. See WP 6436-22, Can't Get In Process for Atmospheric Corrosion, Gas Regulator Replacement, Gas Scheduled Meter Change, and Time of Use Meter Change for more information.

Perform a Pressure Check if HPR-Type Station is not found

If the HPR-Type Station cannot be found, perform a pressure check at the service riser to confirm an HPR-Type Station exists if the tools to do so are available. If the tools are not available, report it as a CGI to the Supervisor so an M&C Mechanic or Gas Control Tech can return to check the pressure at the meter. In addition to checking the pressure, a Gas Crew needs to be dispatched to locate and access the HPR-Type Station.

- The pressure must be below 60 psig upstream of the meter set regulator. If pressure is above 60 psig, contact Local Senior Engineer and T&R Supervisor immediately.
- Inspect the meter set regulator to make sure it's not leaking or venting gas. The regulator needs to be intact, leak tight, and controlling pressure correctly.
- If the regulator is blowing gas through its internal relief valve (IRV), use a wrench to shut off the riser valve immediately. Contact the T&R Supervisor for that division to determine the specific situation and the actions to take.
- If the pressure is below 60 psig upstream of the meter set regulator, the HPR is operating properly. Follow up with the T&R Supervisor for that Division (if needed) to ensure that the HPR is located and inspected. This may involve bringing in a Locator, etc.

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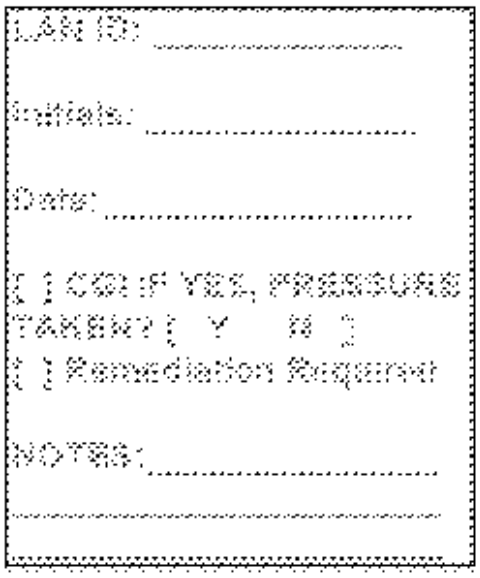
Record Completion of the Inspection

Once the inspection is complete, document the inspection on the HPR Atmospheric Corrosion Inspection Map, filling out all fields in non-erasable ink:



Place the stamp is in the upper right hand corner of each map.

Use the notes section to denote which actions were taken at each HPR-Type Station.

See Attachment 1 to this bulletin for additional information on performing atmospheric corrosion inspections, and for pictorial examples of identifying atmospheric corrosion.

Forward Corrections to Mapping

Any locations that require mapping corrections need to be identified on a Map Correction Form, and copies sent to the Local Mapping Office. If Gas Transmission Mapping needs to update their records, Local Mapping will send copies to GT Mapping Attn: [redacted]

If the HPR-Type Station is hard to locate and the maps do not warrant correction, drop a marker ball into the vault for ease in finding in the future.

Corrective Work

For any further corrective work required on the HPR-Type Station where the "Remediation Required" box was checked on the inspection stamp, follow the instructions below.

> **Note**: This work needs to be initiated in the SAP system (notification created), and should be scheduled for immediate action if a safety hazard is present that

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requires immediate attention. All other notifications will be evaluated, ranked according to their risk, and System Integrity will communicate with local headquarters what HPR-type stations need to be remediated and when.

Expense

If the HPR-Type Station needs remediation beyond recoating with wax tape (such as replacing the relief valve or piping), fill out a Corrective Work Form (CWF) so that a GC or TC notification can be created (see Attachment 1 to this bulletin for more information and examples of CWF forms that have been filled out).

- Use Work Type 609 for HPR-type stations that feed meters over 1000 CFH and 610 for HPR-type stations that feed meters under 1000 CFH. Do not use Work Type 574, which is for Regulator Stations with more than 2 customers only.
- Begin the Notification Description field with "HPR AC Inspection" so that all corrective work associated with this effort can be easily identified.
- Ensure that the object and repair codes are accurately filled out, as well as providing any comments on the conditions that require the repairs. System Integrity will be using this information to work with the Divisions in order to prioritize this type of work and complete the highest risk corrective actions first.

Capital Retirement or Replacement

If the HPR-Type Station is in a condition that requires a capital retirement or replacement, contact Local Engineering for them to start the process. See Gas Information Bulletin 251 for more information on when it makes economic sense to retire HPR-type stations and Gas Standards and Specifications Document H-10 for more information on HPR station design.

- Use Work Type 379 in SAP.
- Begin the Notification Description field with "HPR AC Inspection" so that all capital replacement work associated with this effort can be easily identified.
- Ensure that the object and repair codes are accurately filled out, as well as providing any comments on the conditions that require the repairs. System Integrity will be using this information to work with the Divisions in order to prioritize this type of work and complete the highest risk corrective actions first.

When estimating/engineering an HPR-Type Station replacement, it is important for other options to be considered. For instance, an HPR-Type Station with a regulator-relief configuration cannot be replaced in kind, but must be changed to a monitor-regulator configuration. This will necessitate the construction of a second vault. Tying the customer into existing distribution main or another HPR or reg station and retiring the HPR will be the best option in many situations. Refer to Gas Information Bulletin 251 for

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more information on options in replacing an HPR-Type Station. Please refer to Gas Standards and Specifications Document H-10.

Record Retention

T&R will create a binder, labeled HPR Atmospheric Corrosion Inspections. File all completed, signed off HPR Corrosion Inspection Maps in this binder for audit purposes for the life of the facility. A binder should be created for each year the inspections are done.

Definitions As used in this section:

High Pressure Regulator Station (HPR-type station) means a regulator station that uses non-pilot-operated regulators, specifically: Fisher 621, Fisher 627, Fisher 630, Reliance Model HPR 10, Reliance Model HPR 20, Reliance Model HPR 268, Rockwell 141, Rockwell 141A, and Sprague 041 regulators.

Approved by:

[redacted]

Date: 7-20-2010

Author: [redacted]

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

Contact(s): [redacted]
LAN ID(s):
Phone(s):

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