

[REDACTED]

From: [REDACTED]
Sent: Monday, January 05, 2009 1:44 PM
To: [REDACTED]
Subject: FW: Super revised Valve maintenance instructions and form (ATTCH 1 of WP4430-04)
Importance: High
Attachments: WP4430-04_Attach 1_12-22-08.doc

From: [REDACTED]
Sent: Monday, December 22, 2008 2:51 PM
To: [REDACTED]
Subject: FW: Super revised Valve maintenance instructions and form (ATTCH 1 of WP4430-04)
Importance: High

[REDACTED]
Manager
GT&D GE Technical Applications
PG&E
[REDACTED]

From: [REDACTED]
Sent: Monday, December 22, 2008 2:47 PM
To: [REDACTED]
Cc: [REDACTED]
Subject: Super revised Valve maintenance instructions and form (ATTCH 1 of WP4430-04)
Importance: High

[REDACTED];
Here is the latest valve maintenance instructions and form, which I revised with [REDACTED] sitting with me at my desk today. ☺

If any additional changes need to be made to this form, the ONLY option left for changes is to deepen the height of the rows (*not widen them) as I've now tweaked the form to it's capacity for width.

Merry Ho Ho's!



[REDACTED]
Compliance Analyst & Safety Co-Chair

1/5/2009

Gas Engineering - Technical Applications



1/5/2009



“Valve Maintenance Record” Instructions

General Information

Ensure that all natural gas block valves (2” and greater for gas transmission district-maintained facilities) requiring maintenance per this work procedure and ball or plug valve regulators have a completed “Valve Maintenance Record” form. For gas transmission district-maintained valves smaller than 2”, use the “Technical Maintenance Equipment Card.”

Note:, Copy the form onto white, 67-pound weight card stock. Copy the front and back sides of the form onto the card stock unless a location sketch is needed. If a sketch is required, copy only the front of the form and leave the back of the card blank for the sketch. Fill out the “Valve Maintenance Record” in **permanent ink**

Explanation of “Valve Maintenance Record” Entries

1. General Information (upper portion of the “Valve Maintenance Record”)

- A. **Division/District:** List the name of the division or district that is maintaining the valve.
- B. **Valve No.:** This is the unique number assigned to the valve. This number must be consistent with the Operating Map, Operating Diagram, or Division Plat Sheet.
- C. **SAP WM No.:** This is the unique number used by the work-scheduling program to identify the maintenance required on the specified valve.
- D. **Location:** This refers to the physical location of the valve. If a location sketch is necessary, provide a sketch on the back of the form. For valves not located in on a station Operating Diagram or Division Station Sketch, a location sketch is required. Station valves must always be shown on either a Operating Diagram or a Division Station Sketch.
- E. **Transmission or Distribution:** Insert an “X” in the box to signify whether the valve is a:
- ◆ Gas Transmission ‘Emergency Valve’ or ‘Other Valve’.
 - ◆ Gas transmission facilities operate in excess of 60 pounds per square inch gauge (psig).
 - ◆ Gas Distribution ‘Station Valve’ or ‘Critical Main Valve’
- F. Maintenance personnel must prepare a “Valve Maintenance Record” for each new valve and verify that the proposed (prior to construction) and final (after construction) Operating Diagram and Operating Map, or Division Station Sketch, have been issued and are accurate.

2. Valve Data

Fill out the information in the “Valve Data” section. The Serial Number field is optional but should be filled out if the information is available. Plastic valves do not have serial numbers so put “N/A” in the “**SERIAL NO.**” space.

Complete the information on the recommended valve lubricant/sealant and the required frequency of lubrication and/or inspection. Although a manually-operated ball valve does not require lubrication, the valve is generally required to be operated annually. The following Table 1 summarizes the recommended seat and stem sealant for the various makes of valves.

Table 1. Recommended Seat Lubricant/Sealant and Stem Packing Summary

Manufacturer	Type	Seat Lubricant/Sealant	Stem Packing
Rockwell/ Nord (not DB)	Plug	Rockwell 1033	Rockwell 909
Rockwell/Nord (DB)	Plug	Rockwell 1033	NA
Walworth	Plug	Rockwell 1033	Walworth 630 (909)
Resun	Plug	Contact GT&D Engineering	Contact GT&D Engineering
Serck Audco	Plug	Rockwell 1033	Rockwell 909
Becker Ball Valve Regulator	Ball	Sealweld 911	See Note 1
Grove	Ball	Sealweld 911	See Note 1
KF	Ball	Sealweld 911	See Note 1
PBV-USA	Ball	Sealweld 911	Sealweld 5050
Delta	Ball	Sealweld 911	Sealweld Equa-Lube 80
Orbit	Ball	NA	Orbit GP-6
Cameron	Ball	Sealweld 911	Sealweld 911
Rockwell (pre 1974)	Ball	Rockwell 1033	Rockwell 950 (5050)
Rockwell (post 1973)	Ball	Sealweld 911	NA
TK	Ball	Sealweld 911	See Note 1
WKM	Ball	Rockwell 1033	WKM 107
Grove	G-4 Gate	Sealweld 911	See Note 1
Grove	G-3, G-9 Gate	NA	See Note 1
Grove	G-5 Gate	NA	NA

Note 1. Use 80/90 weight gear oil for a minor leak. If the leak does not stop and a large buttonhead fitting is furnished for the stem sealant injection, use Sealweld 911. If the leak still does not stop, use Rockwell 950 (Sealweld 5050) as a last option.

If the valve has an enclosed gearbox operator, document whether the gearbox:

- Has a Bettis breather installed on top of the gearbox, and
- Is filled with oil.

Subsequently, if the oil is ever drained, indicate this action on the form. It is acceptable not to refill the gearbox. See [Section 3.B.2](#) (“Manually Operated Valves”), [on page 4 of the main work procedure](#), for use of Selig grease.

If the valve is buried and has a high-head extension, document whether the extension has a vent installed. The vent can indicate whether or not the entire valve stem seal on a buried valve has failed.

Use the “Comment” section to provide any additional maintenance information or notes. Note if Sealweld 5050 has been used in the valve. Note if a plug adjustment has been made (plug valves only).

Note: If a gearbox or a high-head extension does not have a Bettis breather, prepare a work request to install a breather.

3. Service History

Use this portion of the “Valve Maintenance Record” to document the maintenance performed on the valve, as well as to document any required repairs and action taken. If a valve is found to be

inoperable, notify the maintenance supervisor immediately. Retain the valve maintenance service history for a minimum of 5 years.

INSPECT: See "Inspection Procedures" in Section 4, on Page 5 of the main work procedure.

LUBE: (If required). **Note:** "If required" refers to all plug valves and all ball valves having power actuation. Gate valves do not require lubrication.

OPERATE: Check the box to show that the valve has been operated.

VALVE POSITION: Note the "As Found" and "As Left" positions as C (closed), O (open), or T (throttling). Remember, the valve must be returned to the "As Found" position after maintenance has been performed.

Upon completion of maintenance on a valve, the maintenance supervisor must:

- a. Critically review *each* "Valve Maintenance Record" to ensure that it is accurate and complete. Return the "Valve Maintenance Record" to the person that performed the maintenance to correct errors and omissions.
- b. During the review required above, check to see if any erasures, obliterations, or other document changes have been made.
 - ◆ **Write "Valve Maintenance Record" information in permanent ink with no white-outs.**
 - ◆ **Review the "Valve Maintenance Record" with the person that performed the maintenance to ensure compliance with these requirements.**
 - ◆ **Enter your "LAN ID" and initial and date the "REVIEWED DATE" field for each new valve maintenance entry to indicate that the information has been reviewed and is correct.**



DIVISION _____ DISTRICT _____ VALVE NO. _____
LOCATION (SKETCH ON BACK IF REQUIRED) _____ SAP WM NO. _____
LINE/STATION NAME _____ TRANSMISSION: [] EMERGENCY [] OTHER
OPER. OR WALL MAP _____ OPER. DIAG. OR PLAT _____ BLK. _____ DISTRIBUTION: [] STATION [] CRITICAL MAIN

VALVE DATA

SIZE _____ MAKE/MODEL _____ TYPE _____ PRESS RATING _____ SERIAL NO. _____ USE _____
RECOMMENDED LUBRICANT/SEALANT _____ LUBE/INSPECT FREQ. _____ Gearbox Breather (Bettis) Installed? [] YES [] NO [] NA
RECOMMENDED STEM PACKING MATERIAL _____ High-Head Extension Vent Installed? [] YES [] NO [] NA
ACTUATOR TYPE _____ COMMENTS _____
Manual Lever, Exposed Gearing (no gearbox), Enclosed Gearing*, Power Actuated
* Manual gearbox filled with oil? [] YES Drained? [] YES [] NO [] NO

SERVICE HISTORY (see notes)

Table with 11 columns: DATE, INITIAL LAN ID, MAN-HR, INSPECT, LUBE (If req'd), OPERATE, VALVE POSITION (As Found, As Left), REPAIRS REQUIRED (If any), ACTION TAKEN (If required), REPAIRED DATE (INITIAL - LAN ID), REVIEWED DATE (INITIAL - LAN ID)

NOTES: 1) Use Y/N for yes/no to indicate item performed and completed. 2) "LUBE" pertains to lubrication of the ball or plug. 3) "OPERATE" means to partially operate as a minimum.



SERVICE HISTORY (see notes)

DATE	INITIAL ----- LAN ID	MAN-HR	INSPECT	LUBE (If req'd)	OPERATE	VALVE POSITION		REPAIRS REQUIRED (If any)	ACTION TAKEN (If required)	REPAIRED DATE		REVIEWED DATE	
						As Found	As Left			INITIAL - LAN ID	INITIAL - LAN ID	INITIAL - LAN ID	INITIAL - LAN ID
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NOTES: 1) Use Y/N for yes/no to indicate item performed and completed. 2) "LUBE" pertains to lubrication of the ball or plug. 3) "OPERATE" means to partially operate as a minimum.

Document Title (and #)	WP4430-04, Gas Valve Maintenance requirements and Procedures
Document Type	Work Procedure
Project Coordinator	[REDACTED]

TALKING POINTS SUMMARY

Who does this document affect and when will it be implemented?	<p>This document affects all employees who perform maintenance activities on plug, ball and gate valves in PG&E's gas systems and facilities.</p> <p>This procedure was issued in May 2008.</p>
What are the document's mandatory requirements?	<p>This work procedure provides requirements and instructions for safely maintaining and operating valves within PG&E's gas systems and facilities, in accordance with the requirements of G.O. 112-E, Section 143.2, 49 CFR Parts 192.745, 192.747 and 192 Subpart N.</p>
Is this document new or revised? If it is revised, what will change?	<p>This work procedure cancels and replaces UO Standard S4220, "Gas Valve Maintenance Requirements"</p> <p>Major changes include:</p> <ul style="list-style-type: none"> • Updated material codes and operating instructions for grease guns. • Updated forms per GIB 247 • Updated frequency language
What will this document accomplish?	<p>This procedure establishes responsibilities, requirements, and procedures for performing and documenting work associated with maintenance of gas valves.</p> <p>Compliance with this procedure will ensure affected gas valves will operate as intended.</p> <p>This procedure will achieve compliance with the federal regulations 49 CFR 192.745, 192.747, 192 Subpart N, and G.O. 112-E Section 143.2.</p>
How will this document be communicated and distributed?	<p>This document will be published on the Company's Technical Information Library and be distributed electronically to stakeholders. In addition, the SME will communicate the steps of this work procedure to various applicable Gas work groups.</p>

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Project Coordinator	[REDACTED]

What affect will this document have on resources? What training will be required?	This document will have a negligible impact on resources. No significant changes in training requirements. Training will remain consistent with previous requirements.
How is this document going to be implemented? What follow-up actions are needed?	The SME will communicate these requirements to various work groups, as needed. Direct questions about this work procedure to [REDACTED]
Stakeholder Review	See the next page.

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Document Type	Work Procedure
Project Coordinator	[REDACTED]

**STAKEHOLDER / SUBJECT MATTER EXPERT REVIEW
OF THE DOCUMENT**

Name	Department	Phone #	Review Dates
Gary Vollbrecht	Gas Engineering Pipeline Engineering	323-1048	
Edward Chun	Measurement, Regulation, Quality	222-5053	
Edward Stracke	Gas Engineering Pipeline Engineering	583-4231	