

Attachment 1



Central Coast Pre-CPUC Audit Internal Review Summary

Central Coast Division
Internal Review of Gas Maintenance Records
Updated: 10/2/2012

Background

A company review of 2008 and 2009 of various gas maintenance activities in Central Coast Division identified findings that require review, action, or improved procedures in order to fully adhere to company standards, work procedures, or bulletins. The following summary identifies our internal findings and the corrective actions that have or will take place.

Topic	# of Records Reviewed	Finding(s)	Corrective Action To Close Findings	Proposed Action to Prevent Reoccurrence	Actual Completion Date
Distribution Leak Survey		1) There were 228 instances of leaks not marked with an "x" on the plat sheet	1) Tailboard review as appropriate UO S4110, GIB 247 Gas & Electric M&O Record Requirements, GIB 215, GIB 250, GIB 282	1) Tailboard review as appropriate UO S4110, GIB 247 Gas & Electric M&O Record Requirements, GIB 215, GIB 250, GIB 282	Tailboard complete: 10/1/2010
		2) There were 198 instances of leaks not graded on the plat sheet.	2) "	2) "	1) "
		3) There were 196 instances of leaks not marked on the plat sheet	3) "	3) "	2) "
		4) There were 20 instances of main not highlighted as having been surveyed	4) Investigate each of the 18 instances of non-highlighted main. Complete a special leak survey for any of the 18 sections of main that have not been surveyed during a subsequent leak survey. Tailboard review as appropriate UO S4110.	4) "	3) "
		5) There were 12 instances of the survey being completed outside of the compliance time frame	5) Tailboard review as appropriate UO S4110, GIB 247 Gas & Electric M&O Record Requirements, GIB 215, GIB 250, GIB 282	5) "	4) "
		6) There were 41 instances of CGIs not cleared or labeled incorrectly on the plat sheet	6) "	6) "	5) "
		7) There were 820 instances of incomplete header information	7) "	7) "	6) "
		8) There were 107 instances of mapping sign off or date	8) "	8) "	7) "
			9) "	9) "	8) "
			10) "	10) "	9) "
			11) "	11) "	10) "



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	missing.	12) “	12) “	12) “
	9) There were 307 instances of a supervisory review being conducted outside of the 7 day timeframe.	13) “	13) “	13) “
		14) “	14) “	14) “
		15) “	15) “	15) “
	10) There were 314 instances of supervisor sign-off or date missing.	16) “	16) “	16) “
		17) “	17) “	17) “
	11) There were 386 instances of incomplete survey record entries	18) “	18) “	18) “
		19) “	19) “	19) “
	12) There were 465 instances of no instrument type or serial number. (due primarily to the use of an older leak survey stamp)			
	13) There were 592 instances of leak logs signed off outside of the 7 day timeframe.			
	14) There were 189 instances of leak logs with missing sign-off or dates			
	15) There were 466 instances of the use of incorrect units to record survey			
	16) There were 77 instances with a mis-match between the miles of main or number of services recorded			
	17) There were 453 instances of missing or incomplete leak logs or missing “No Leaks Found” statement.			
	18) There were 4 instances with multiple WM/plats recorded			



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		<p>on the same leak log</p> <p>19) There were 220 instances with a CGI Log not on file or incomplete/ missing "No CGIs" statement</p>			
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Topic	# of Records Reviewed	Finding(s)	Corrective Action To Close Findings	Proposed Action to Prevent Reoccurrence	Actual Completion Date
Transmission Leak Survey		<p>1) Many survey logs are missing the "No Leaks Found" entry required by WP4110-05</p> <p>2) Calibration check records for the instruments used for many surveys are either not available or indicate that the instrument was "not in use" at the time of the survey.</p> <p>3) Some surveys were not signed to show that they had received a supervisory review or were reviewed beyond 7 days.</p> <p>4) Some surveys were not signed off as having been completed as required by WP4110-05.</p> <p>5) The inconsistent use of dashes, commas, and in one instance "+" symbols when recording the sequence numbers for many surveys make it difficult to determine exactly what work was completed.</p> <p>6) Some semi-annual surveys were completed outside of the 7-1/2 month allowable timeframe or were not logged</p>	<p>1) Tailboard review as appropriate UO S4110, GIB 247 Gas & Electric M&O Record Requirements, GIB 215, GIB 250, GIB 282</p> <p>2) "</p> <p>3) "</p> <p>4) "</p> <p>5) "</p> <p>6) Subsequent semi-annual surveys have been conducted. Tailboard S4110-05.</p> <p>7) Tailboard review as appropriate UO S4110, GIB 247 Gas & Electric M&O Record Requirements, GIB 215, GIB 250, GIB 282</p> <p>8) Subsequent annual surveys have been conducted for the mains in question. Tailboard S4110-05.</p> <p>9) Although "5YR" was not indicated in the sequence numbers for the feeder, the plats requiring a 5-yr survey were surveyed. Since these plats only had 5-yr pipe to be surveyed, the survey appears to have been completed as required. Tailboard S4110-05.</p> <p>10) The notation regarding difficulty locating the main was not repeated for the Davenport DFM during the 2009 survey. Follow-up action to contact the pipeline engineer had</p>	<p>1) Tailboard review as appropriate UO S4110, GIB 247 Gas & Electric M&O Record Requirements, GIB 215, GIB 250, GIB 282</p> <p>2) "</p> <p>3) "</p> <p>4) "</p> <p>5) "</p> <p>6) "</p> <p>7) "</p> <p>8) "</p> <p>9) "</p> <p>10) Verify completion of order #41215296 prior to the next scheduled survey in May of 2011 or confirm during the survey</p>	<p>Tailboards completed 9/16/2010</p> <p>1) "</p> <p>2) "</p> <p>3) "</p> <p>4) "</p> <p>5) "</p> <p>6) "</p> <p>7) "</p> <p>8) "</p> <p>9) "</p> <p>10) Completed on 12/2011</p>



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		<p>as having been conducted</p> <p>7) Recording of leaks is inconsistent. (e.g., some leak numbers are not recorded in the comments section of the log. One comment indicates "A-form" with no leak number recorded. Several comments indicate leaks found with no leak numbers recorded.)</p> <p>8) Some annual surveys were not logged as having been conducted.</p> <p>9) The 5-year survey for the Carmel Valley Feeder was not logged as having been conducted.</p> <p>10) Notes made by the surveyor in the 2008 survey log for the Davenport survey say "Unable to survey, no main markers" with no indication of follow-up action (sequence # s 2 and 19)</p>	<p>been taken and order #41215296 to add main markers to the Davenport DFM was created. Completion of the work is pending.</p>	<p>that adequate means exist for the surveyor to locate and properly survey the main in sequence #'s 2 and 19.</p>	
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Leak Repair (> 20% Sample of below grade leaks)	815 below grade leak repairs were reviewed. This represents 99% of below grade repairs or 24% of all (3,419) repaired leaks.	<p>There were 557 individual findings from the review.</p> <ol style="list-style-type: none"> 1) There were 106 instances where the pressure test information was missing, erroneous, or unclear. 2) There were 11 instances where plastic pipe was installed with incomplete or missing manufacturer information, or where the manufacturer information indicated that the pipe had exceeded its 36 month storage life. 3) There were 38 instances where the source of the leak was unclear or erroneous. 4) There were 39 instances where either the repair method or material used was in question. 5) There were 12 instances where determination of the leak grade was in question, either through use of a non CGI instrument to grade the leak, leak incorrectly recorded, or other issues. 6) There were 20 instances where USA was or should have been called with no USA information recorded on the form. 7) There were 67 instances of the use of white out on the form. 	<p>Of all the issues identified, there were 49 which appear to require that the pipe be tested or re-tested, 17 which appear to require replacement of the pipe used to make the repair and 3 which could potentially require re-work in the field for other reasons. It is recommended that interviews be conducted with the employees responsible for the repair of these leaks and the completion of the A-form paper work in an attempt to clarify what occurred during the repair and to correct the paperwork to reflect the actual work completed.</p> <ol style="list-style-type: none"> 1) Where interview cannot establish if a proper pressure test was conducted, excavate and re-test the pipe in question. 2) Where interview cannot establish the type of pipe or age installed, excavate and record the print line information or replace the pipe with pipe of known manufacture and date. 3) For those instances in which properly recording the leak source is critical to the integrity of the repair, excavate and correct the repair. 4) For those instances in which the repair method or material used is critical to the integrity of the repair, excavate and correct the repair. 5) N/A. Leak grades are moot as all of the leak forms examined were for repaired leaks. 6) N/A. USA contact is moot since all of the leaks examined have been repaired. 7) N/A 	<p>1) thru 9) Tailboard leak repair personnel, including mapping personnel as applicable, on Standard S4110, <u>Leak Survey and Repair of Gas Transmission and Distribution Facilities</u>, and associated work procedures and bulletins.</p>	<p>For items 1) thru 9) the Tailboards were completed as follows:</p> <p>Monterey 9/21/2010</p> <p>Santa Cruz 10/1/2010</p> <p>Mapping 11/10/11</p> <p>Salinas 9/16/2010</p> <ol style="list-style-type: none"> 1) Completed 12/2/2011 2) Completed 12/2/2011 3) Completed 4/1/2011 4) Corrected 4/1/2011 5) Tailboard (see above) 6) Tailboard (see above) 7) Tailboard (see above) 8) Hole punch



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		<p>8) There were 32 instances in which a pipe to soil reading was not taken when required, a P/S below -850mv was recorded, or the P/S was not legible on the form.</p> <p>9) There were 222 other issues regarding data quality which do not affect the integrity of the leak repair but are in noncompliance with company standards (e.g. documents completed in pencil, incorrect MOPs entered, missing dimensions on sketch, no mapping review, etc.)</p>	<p>8) Investigate each instance in which a pipe to soil reading was required but not recorded and obtain current P/S reading at the most accessible location nearest the leak repair. Investigate “down” readings.</p> <p>9) N/A.</p>		<p>removed most of the P/S readings from the copies that were audited. For the others, P/S were retaken and found adequate on 3/23/2011</p> <p>9) Tailboard (see above).</p>
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Topic	# of Records Reviewed	Finding(s)	Corrective Action To Close Findings	Proposed Action to Prevent Reoccurrence	Planned Completion Date
Cathodic Protection Records		<ol style="list-style-type: none"> 1) There were 11 instances of CP areas down over 30 days or other CP work completed without an Action Plan 2) There were 4 instances of documents missing review signatures 3) There was one low P/S reading recorded without documentation of follow-up action being taken. 4) There were 6 instances of no date being recorded at the time a CP reading was taken. 5) There were 2 isolated risers that could not be located and missed their required reading. 6) There were 2 CPAs that were re-spanned without breading down their current readings to less than 15 ma 7) There were 15 casings that were not recorded as having been read in 2008 8) There were 5 instruments that had calibration check readings that indicate the units were out of calibration. 9) There were 6 electrodes that missed quarterly calibration checks. 10) In 2008 and 2009 an insufficient number of CPA resurveys were conducted to meet the minimum 	<ol style="list-style-type: none"> 1) Tailboard the importance of keeping complete records as outlined in GS&S O-16 2) The 4 documents requiring review will be checked by the current supervisor, signed and dated. 3) Conduct a field investigation to determine if the -712 mv reading at FM XT12, Constitution/Creekside, has been restored. Implement action plan if reading if found below -850mv. 4) Tailboard (see above) 5) Conduct a field investigation to locate the isolated risers at FM XK14 and XK19 and record current readings. Implement action plan if risers are found below -850 mv 6) Investigate resurveys for CPAs 3839-70 and 3959-44 and conduct additional surveys to break down current to less than 15ma or document reason for higher reading. 7) Casings were subsequently read during their 2009 annual inspection. 8) Instruments have since received calibration checks to indicate that they are operating normally. Tailboard GS&S O- 	<ol style="list-style-type: none"> 1) Tailboard to mechanics the importance of keeping complete records as required by Gas Standard O-16. Tailboard O-16, O-71, O-72, and O-73 as appropriate. 2) “ 3) “ 4) “ 5) “ 6) Tailboard TD 4133-02 7) Tailboard WP 4133-03 and -04. 8) Tailboard (see 1 above) 9) “ 10) “ 	<ol style="list-style-type: none"> 1) Tailboard completed 9/29/2010 2) Completed 12/10/10 3) The action plan is documented on the maintenance sheet for cpa 3839-66. New read taken at this location on 9-29-10. It was -955mv. Documented this on the read sheet for 2010. Tailboard completed 9/29/10. 4) Tailboard completed 9/292010 5) Read this service for XK14 on 9-29-10. It was -1170mv. Read this service for XK19 on 9-29-10. It was -900mv. Tailboard completed



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		12% requirement. (6 of 18 in 2008 and 13 of 18 in 2009)	72 and O-73 to ensure proper calibration checks. 9) Research each unit to determine if they were in use at time of missed calibration check and record this information as required. Tailboard O-71 10) Tailboard corrosion control personnel to ensure familiarity with the 12% / year requirement for CPA resurvey.		9/29/10. 6) Took reads to span down area 3839-70 to less than 15ma on 9-29-10. CPA 3959-44, This area is tied to transmission area and it is not possible to separate it. Corrosion Mech set up PCM and spanned it from the dead end of area. Sam Thomas approved this in 2009. Tailboard completed 9/29/10. 7) Tailboard WP 4133-03 and -04 completed 9/29/10 8) Tailboard GS&S O-72 and O-73 completed 9/29/10 9) Research and tailboard completed 9/29/10 10) Tailboard completed 9/29/10
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Topic	# of Records Reviewed	Finding(s)	Corrective Action To Close Findings	Proposed Action to Prevent Reoccurrence	Planned Completion Date
Atmospheric Corrosion		Of the 212,553 metersets in the division, the total number of meter set locations with atmospheric corrosion inspection matters was 6,679. Of these 6,676 locations are complete and 3 locations are pending. The three pending locations are: 1) Redacted 2) 3)	Investigate reason for pending action and correct as appropriate. 1) Pending investigation 2) Pending investigation. Tag issued 9/14/10. 3) Pending investigation. Tag issues 9/14/10.	A new process has been implemented with a contractor conducting the AC inspections as well as a quality control check is conducted to ensure FAS tags are created for each location. Field services monitors open FAS tags to ensure they are closed in a timely fashion.	Action completed 1) 9/20/2010 2) 9/14/2010 3) 9/14/2010

Topic	# of Records Reviewed	Finding(s)	Corrective Action To Close Findings	Proposed Action to Prevent Reoccurrence	Actual Completion Date
MAOP Documentation	5 MAOP binders.	1) None of Central Coast Divisions MAOP documentation files contain a change log as required by Utility Procedure TD-4125P, approved 3/21/2010	1) Add a change log for each MAOP system record in Coast Valleys Division. Also consider adding individual binder tabs to separate the documentation for each MAOP system for easier identification.	1) Changes will be made to files as Utility Procedures are updated.	1) Completed 12/31/10

Topic	# of Records Reviewed	Finding(s)	Corrective Action To Close Findings	Proposed Action to Prevent Reoccurrence	Actual Completion Date
Regulator Stations		1) There were 2 stations with "B" inspections which appear to have been completed outside of the 8 year schedule. 2) There was 1 station with a "B"	1) Stations T05 and S41 received "B" inspections in 2008 and 2009, respectively, and are now in compliance, however, records do not conclusively indicate the date of the	1) Tailboard WP4540-01 with emphasis on the scheduling and documentation of internal inspections for distribution regulator	1) thru 4) Tailboards comp.11/30/10 Action plans completed on



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		<p>inspection which was completed outside of the 5 year schedule.</p> <p>3) There were 10 stations noted as having issues with the station inlet fire valves. Valves were either noted as not present, not maintained, paved over, no stops, etc.</p> <p>4) There 7 instances of additional corrective work required with no documentation that the work had been initiated or completed.</p>	<p>previous "B" inspection.</p> <p>2) Station S28 received a "B" inspection in April of 2008 and is currently in compliance, however, the previous "B" inspection was completed in 2001, 2 years beyond the 5 year maintenance schedule.</p> <p>3) Research each instance of missing annual maintenance and verify that maintenance was subsequently conducted. Maintain any previously unmaintained valves and add them to or confirm their presence in the current maintenance plan. Determine appropriate actions to be taken at each station and initiate action plans as necessary.</p> <p>4) Research each instance of corrective work noted and verify that work was initiated. For stations where work has not been initiated, determine appropriate actions to be taken at each station and initiate action plans as necessary.</p>	<p>stations.</p> <p>2) Tailboard WP4540P-04 with emphasis on the scheduling and documentation of internal inspections for transmission regulator stations.</p> <p>3) Tailboard WP4540-01</p> <p>4) "</p>	<p>11/30/10</p> <p>J-30, Zone valve #3 missed 08 maintenance but was maintained in 09 & 10. Tailboard completed on 11/30/10</p> <p>J-33, V B30-2 paved over in 2009 and not maintained but was operated in 2010</p> <p>S-02, No filter diff taken in 08 on right run but was taken in 09 & 10</p> <p>S-28, 09 Valve Maint record shows "1.0" in Verify column. Correctly marked with "Y" in 2010</p> <p>S-47, Fisher 627 reg's 1/2" orifice was replaced with 1/4" on 5/5/11. Capacity Ok</p> <p>S-74, 09 Valve Maint for inlet FV shows plug</p>
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					<p>valves not lubed, both valves lubed in 2010</p> <p>M-08, 2008 review on FV missing. Was signed but dated 2007 incorrectly</p> <p>M-13, Could not locate FV in 09 & 10. Job to install new FV completed in July 2010</p> <p>H-14, Data sheet shows max work pressure on station outlet fire valve exceeds inlet MAOP. Station has no FV</p>
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Topic	# of Records Reviewed	Finding(s)	Corrective Action To Close Findings	Proposed Action to Prevent Reoccurrence	Planned Completion Date
Relief Valve Calculations	151 of 151 100%	1) None	1) n/a	1) n/a	1) n/a



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Topic	# of Records Reviewed	Finding(s)	Corrective Action To Close Findings	Proposed Action to Prevent Reoccurrence	Actual Completion Date
Emergency Valves	274	<ol style="list-style-type: none"> 1) There were 59 instances for which annual valve maintenance in 2008 or 2009 was either documented as late or could not be verified. 2) There were 13 instances with missing initials or maintenance dates. 3) There were 96 instances for which the lubrication of plug valves during maintenance could not be verified. 4) There were 13 instances where follow-up corrective action was not documented. 5) There were 9 instances with inadequate information provided on the valve sketch. 6) There were 21 instances where old maintenance forms were used to document maintenance. 7) There were 104 instances where the valve key size was not entered on the valve maintenance card. 8) There were 14 instances where the pressure rating information was not entered on the valve card. 	<ol style="list-style-type: none"> 1) Research each instance of missing annual maintenance and verify that maintenance was subsequently conducted. Maintain any previously unmaintained valves and add them to or confirm their presence in the current maintenance plan. 2) Tailboard WP 4430-04 3) Tailboard WP 4430-04 4) Research each instance and document corrective action taken. Implement action plan for each instance not previously corrected. 5) Research each instance and provide missing information to mapping. 6) New maintenance forms are currently in use. 7) Require missing valve key sizes to be entered during the next regularly scheduled valve maintenance. 8) Tailboard valve maintenance employees on Tailboard WP 4430-04. If pressure rating information is available, enter it during the next regularly scheduled valve maintenance. If information is unavailable, enter "unknown". 	<ol style="list-style-type: none"> 1) Tailboard WP 4430-04 with valve maintenance employees. 2) “ 3) “ 4) “ 5) “ 6) “ 7) “ 8) “ 	<ol style="list-style-type: none"> 1) Tailboard completed on 12/30/10 2) ” 3) “ 4) Completed 12/9/11 5) Completed all valve sketch updates on 08/29/12 6) n/a 7) 12/09/11 8) 12/09/11



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Topic	# of Records Reviewed	Finding(s)	Corrective Action To Close Findings	Proposed Action to Prevent Reoccurrence	Actual Completion Date
Instrument Calibrations	HFI/OMD/RMLD	1) There were 60 instances where HFI/OMD/RMLD units either missed their weekly calibration check, were not noted to be "out of service" or "not in use", or were not noted as having been tagged out of service.	1) n/a	1) Supervisors to tailboard employees responsible for calibrations on the calibration and documentation requirements of Gas Standards and Specifications M-53.2, 53.3, and 53.4. SME to review and train employees on calibration and documentation requirements. Supervisor will review calibrations weekly.	1) Tailboard completed 9/16/10

Topic	# of Records Reviewed	Finding(s)	Corrective Action To Close Findings	Proposed Action to Prevent Reoccurrence	Actual Completion Date
Pipeline Patrols	8 of 8 quarterly reports for 2008 and 2009 100%	1) An observation made on 9/2/2009 has no follow-up action documented for DFM 1816-01	1) Main was patrolled again on December 7 th 2009 with no patrol findings noted.	1) Tailboard supervisor regarding work procedure emphasizing importance of documentation of follow-up actions.	Tailboard complete: 11/30/2010

Topic	# of Records Reviewed	Finding(s)	Corrective Action To Close Findings	Proposed Action to Prevent Reoccurrence	Actual Completion Date
Odorization	72	June 15 2009 test was made 14 days after previous test. Standard requires that tests be conducted weekly.	1) Subsequent tests were conducted within standard. Tailboard TD 4350S	1) Tailboard TD 4350S	1) 10/29/10



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Topic	# of Records Reviewed	Finding(s)	Corrective Action To Close Findings	Proposed Action to Prevent Reoccurrence	Actual Completion Date
Emergency Plan	52 of 52 sections or pages. 100%	1) The on-line version of the Central Coast Division Gas Emergency Plan (Division Plan) requires updating. Of the 52 pages or sections reviewed, 21 contain information that is out of date or in error. The information in 11 sections may be current, but cannot be determined without further review (e.g. 2 year old emergency material lists). The information in the remaining 20 sections has recently been updated (2010 update).	1) Update items identified as out of date.	1) During the 2010 update, reaffirm accountability for Emergency Plan updates within the organization.	1) Completed 12/13/2010

Topic	# of Records Reviewed	Finding(s)	Corrective Action To Close Findings	Proposed Action to Prevent Reoccurrence	Actual Completion Date
Distribution Emergency Shutdown Zones	4 of 4 Zone Binders reviewed	1) The King City binder did not receive an annual review in 2008 2) The 2009 annual review for Santa Cruz occurred outside the 15 month allowable timeframe. 3) The Hollister binder does not have a Review Log Sheet. Unable to determine compliance with annual review.	1) Binder was reviewed in 2009 and is now in compliance. 2) Review was completed but outside of the annual compliance timeframe. Tailboard UO Standard S5000 3) Add logsheet to Hollister binder. Tailboard engineering personnel on UO Standard S5000.	1) Tailboard engineering personnel on UO Standard S5000. 2) “ 3) “	1) Tailboard Completed 9/16/10 2) “ 3) Logsheet added 9/16/2010



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Joiner Qualifications		1) None	1) n/a	1) n/a	1) n/a

Topic	# of Records Reviewed	Finding(s)	Corrective Action To Close Findings	Proposed Action to Prevent Reoccurrence	Actual Completion Date
Deactivation	1	1) WP4100-11 requires that each Maintenance and Construction organization establish a filing and monitoring procedure to ensure compliance with the stub service review process. The current procedure is maintained by Gas Engineering in the form of a Microsoft Access Database. Only one Stub Inspection Report is on file for 2008. The 2009 reports, while more complete, do not document final disposition of services to be deactivated.	1) Tailboard WP4100-11 with mapping, engineering, and M&C employees. Establish filing and monitoring procedure in M&C organization as required by the work procedure.	1) Tailboard WP4100-11 with mapping, engineering, and M&C employees. Establish filing and monitoring procedure in M&C organization as required by the work procedure.	1) Completed 12/31/10

Attachment 2

ANNUAL

Redacted

0064-105

0064-105

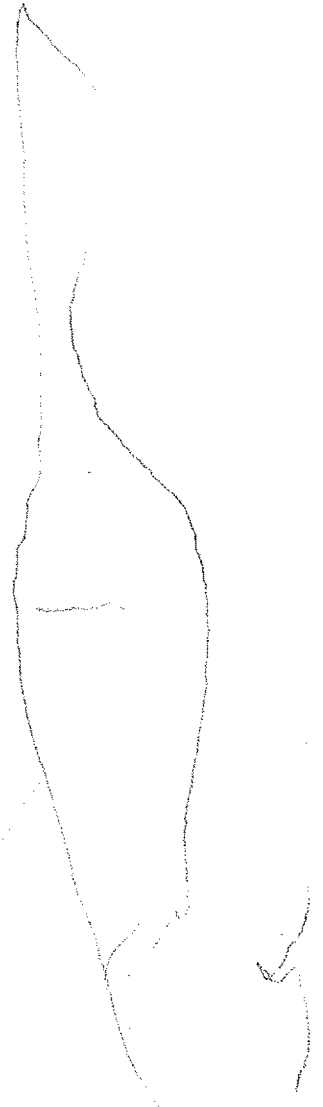
0064-105

3964-105

0064-105

0064-105

0064-105



EXPEDITE IGIS ENTRY? Yes No

PCC NUMBER

1 1 985

REPORTED BY

- CALL IN
- MOBILE SURVEY
- FOOT SURVEY
- OTHER EMPLOYEE

REVIEWED BY

REVIEW DATE

DATE	OPERATOR LAN ID	INST TYPE ^a	INST SERIAL # ^a	MILES OF MAIN	# OF SERVICES
08-13-09	Redacted	H	5003	2999	20

LEAK NUMBER	DATE FOUND	TIME FOUND	ADDRESS/CITY	Paved W/W	SOL ^b	LEAK LOC. WM/PLT	REC. LOC. WM/PLT	BLOCK	READING	GRD ^c	*2% or Less or Suspect Copper	Leak Downgraded Via Ventilation (Yes/No)	LOCATION REMARKS	Grade 2+ Requested Repair Date
09502411	8/13	12:30	Redacted	N	W	3 rd Key	JOS	13	V	2+			Below street	

a INSTRUMENT TYPE: Enter H - Hydrogen flame ionization, C - Combustible gas indicator, R - Remote methane leak detector, Q - Optical methane leak detector - Enter the last 4 digits of the serial number on the unit.
 b SURFACE OVER LEAK: Enter C - Concrete, T - Tar compound, U - Unsurfaced, or O - Other
 c GRADE: Enter Grade or 2+ for Priority Grade 2. Enter a 0 (zero) if no leak is found on a customer Call In
 * 2% or Less reason code is required if a leak is graded as 1, 2+ or 2.
 A-Wall to Wall and traveling, B-Next to, at or under a building, C-Odor and next to public gathering location, D-In foreign structure, E-Audible and/or visible, F-On facility in extremely poor condition,
 G-At least second customer call out, H-Leak is reported as 0% Gas Visual, S-Suspect copper service leak
 Refer to UO Standard S4110.

CGI Card Number	Date Of CGI	WM & Plat Number	Street Address	City/Town	Zip Code	Date FU Leak Survey Completed	Leak Surveyor LAN ID	Date Facility Highlighted On Map	Sample of Highlighter Color Used To Mark Map

Attachment 3

ANNUAL

Redacted

E 1885000

3964-J04

3964-J05

E 1888700

N 434250

4026-A03

Attachment 4

ANNUAL

Redacted

E 1285000

E 1285000

N 434250

4026-A05

Leak Survey and Field Inspections Stamp

Wall Map/Plat _____ Previous Leak Survey Start Date: _____
 Scheduled Month/Year _____ Previous Leak Survey Complete Date: 6/9/2010
 Survey Frequency/Type: 5-Year Survey 3-Year Survey Annual Survey 6-Months Survey Special Survey Audit

Address/Location Description: _____

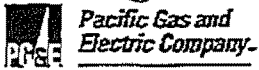
Town/City: _____

Date Surveyed	Surveyor LAN ID	Sample Color Highlighter Used	Type and Manufacturer Of Instrument Used ²	Wind Speed Start of Day (MPH) ³	Wind Speed Middle of Day (MPH) ³	Serial Number Of Leak Survey Instrument (last 4 digits)	Foot Survey	Mobile Survey	Atmospheric Corrosion Survey	Field Inspections Survey	Actual Hours Surveyed ⁴	Ft of Main Surveyed	# of Services Surveyed
6-24-11	Redacted		H4	0	3	4003	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1/2	986	5
6/24/11		N/A	CH	0	3	0735	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1	2551	6
							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
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							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
Totals											1.5	3537	11

Leak Survey Supervisor Review of Map By: Redacted Date: 6-29-11
 Gas Mapping Review of Map By: _____ Date: 7-15-11

Note 1: Attach the "Case Document" issued by CC&B/FAS to the daily "Leak Survey Log" and Leak Survey Map when submitting doc's to Mapping.
Note 2: Use the following abbreviations for Type of Instrument and Manufacturer: H3 - Heath DP3, H4 - Heath DP4, CH - Century OVA 88, HO - Heath OMD, HR - Heath RMLD, HL - Heath Laser, VG - Vegetation Survey, SF - Southern Cross FP400, HI - Heath DPIP, HW - Southern Cross 46 Hawk, RO - Bascom Turner Rover, V - Visual
Note 3: Do not Leak Survey if Winds exceed 15 MPH or during and after periods of heavy rain.
Note 4: Hours Surveyed means the actual time spent surveying in the field. Tailboards, travel time and meal time are excluded
Note 5: Middle of Day is immediately after the lunch period.
Note 6: Wind speed can be documented at other times during the day as conditions warrant (i.e. when winds pick up noticeable speed).

Attachment 5



STANDARD CATHODIC PROTECTION MAINTENANCE REPORT

(Form must be completed in Non-erasable Ink)

GT&D
01/09
FO-16-D

A. RECORD INFORMATION

LOCATION : <u>Redacted</u>	CITY SANTA CRUZ	CP SYSTEM NO. 3674-04	FM/PLM#
AREA 3	DIVISION CENTRAL COAST	DISTRICT SANTA CRUZ	YEAR 2010

B. PIPE-TO-SOIL POTENTIAL MEASUREMENTS (MILLIVOLTS)

TEST LOCATION	BASE DATA	LAST YR READING										
1. <u>Redacted</u>		1049	841	1193	1179	1161	1133	1113	1136		1067	
2.		939	822	1102	1088	1068	1041	1029	970	800	956	
3.												
4.												
5.												
6.												
DATA RECORDED BY (LAN ID)		<u>Redacted</u>										
DATA RECORDED BY (INITIALS)												
DATE (MONTH/DAY)		11-3-09	1-5-10	1-25-10	3-3-10	5-3	7-13	9-7	11-4	12-15-10	12-28	

C. GALVANIC ANODE/RECTIFIER MEASUREMENTS

GALVANIC ANODE OR RECTIFIER LOCATION	BASE DATA	LAST YR READING	INTERFERENCE TEST RECTIFIER - 1. <u>4</u> AMPS, 2. <u> </u> AMPS, 3. <u> </u> AMPS, 4. <u> </u> AMPS			
			VOLTS/AMPS			
1. <u>Redacted</u>	2.1A	2.5A	1.5A	2.5	2.5	2.5
2.	10.7	12.3	13.3	19.4	19.4	18.4
3.			Check	Check	Check	Rest
4.			Rest	Rest	Rest	Measure
5.						
6.						
DATA RECORDED BY (LAN ID)		<u>Redacted</u>				
DATA RECORDED BY (INITIALS)						
DATE (MONTH/DAY)		7-1-09	1-22-10	1-22-10	1-25-10	3-11-10
						12-28-10

D. RECORD REVIEW

BI-MONTHLY REVIEWED BY (LAN ID)		<u>Redacted</u>										
BI-MONTHLY REVIEWED BY (INITIALS)												
DATE (MONTH/DAY)		1-25	11-23	11-23	3-19	5-21	10-22	11-23				

Redacted
7/14/10



**E. LOG OF CATHODIC PROTECTION
MAINTENANCE WORK**
(Form must be completed in Non-erasable Ink)

GT&D
01/09
FO-16-D

GPA System No. 3614-0A

DATE	LAN ID	INITIALS	WORK DESCRIPTION
1-22-10	Redacted		Fwy Corr Tag to Trouble shoot area, Check Rest, found set ^{1.57} / 13.0V, reset to 2.54 / 19.1V, found that anode is taking more Volts.
1-25-10			Took P/s survey and found area up, check Rest. Fwy work Ticket 3125 P.m
3/15/10			Rest Maint
12-27			Fwy Corr Tag
12-28-			Trouble shoot area - DC M - found contact at Redacted, move stop cock from meter set, install insulation. Took P/s survey and found area up. Check Rest.

Attachment 6

3



STANDARD CATHODIC PROTECTION MAINTENANCE REPORT

(Form must be completed in Non-erasable Ink)

GT&D
01/09
FO-16-D

A. RECORD INFORMATION

LOCATION : CAPITOLA	CITY SANTA CRUZ	CP SYSTEM NO. 3676-01	FM/PLM#
AREA 3	DIVISION CENTRAL COAST	DISTRICT SANTA CRUZ	YEAR 2010

B. PIPE-TO-SOIL POTENTIAL MEASUREMENTS (MILLIVOLTS)

TEST LOCATION	BASE DATA	LAST YR READING									
1. Redacted			854	831	953	973	956	936	865	867	911
2.			1429	1402	1462	1472	1466	1427	1453	1467	1463
3.											
4.											
5.											
6.											
DATA RECORDED BY (LAN ID)			Redacted								
DATA RECORDED BY (INITIALS)			Redacted								
DATE (MONTH/DAY)			1-8-10	3-1	3-16-10	5-4	7-13	9-2	11-2	12-17	12-27

C. GALVANIC ANODE/RECTIFIER MEASUREMENTS

GALVANIC ANODE OR RECTIFIER LOCATION	BASE DATA	LAST YR READING	INTERFERENCE TEST RECTIFIER - 1. _____ AMPS, 2. 1.2 AMPS, 3. _____ AMPS, 4. _____ AMPS								
			VOLTS/AMPS			VOLTS/AMPS			VOLTS/AMPS		
1. Redacted		1.0/5.9	1.2/1.3	1.2/1.3	1.5/7.1	1.5/7.1	1.5/7.1	1.5/7.1	1.5/7.1	1.5/7.1	
2.		1.2/2.5	1.2/2.8	1.2/2.2	1.2/3.6	1.2/3.6	1.2/3.6	1.2/3.6	1.2/3.6	1.2/3.6	
3.			Check	Check	Rect	Rect	Check	Check	Check		
4. Redacted			Rect	Rect	Maint	Maint	Rect	Rect	Rect		
5.		.3A	.3A	.3A							
6.											
DATA RECORDED BY (LAN ID)			Redacted								
DATA RECORDED BY (INITIALS)			Redacted								
DATE (MONTH/DAY)		11-72-09	3-15-10	3-16-10	7-16-10	7-19-10	12-23-10	12-24-10	12-27-10		

D. RECORD REVIEW

BI-MONTHLY REVIEWED BY (LAN ID)			Redacted								
BI-MONTHLY REVIEWED BY (INITIALS)			Redacted								
DATE (MONTH/DAY)			1-25	3-29	5-21	7/19/10	10-22	11-23	12-27		

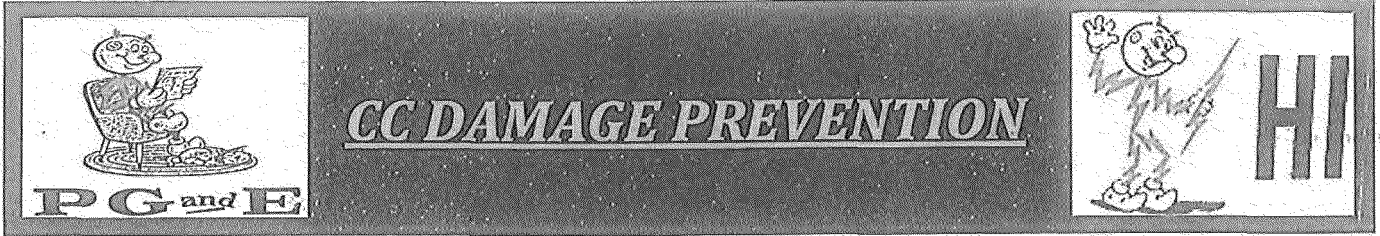


**E. LOG OF CATHODIC PROTECTION
MAINTENANCE WORK**
(Form must be completed in Non-erasable Ink)

GT&D
01/09
FO-16-D

CPA System No. 3676-01

DATE	LAN ID	INITIALS	WORK DESCRIPTION
3/15/10	Redacted		<p>Call con tag to troubleshoot - Check Rect - OK</p> <p>Turn Rect on [Redacted]</p> <p>[Redacted]</p> <p>from [Redacted]</p>
3/16/10			<p>Took P/s Reads and found area up.</p> <p>Check Shunt - 3A - OK Check Rect's.</p> <p>interference on [Redacted] is too high. I</p> <p>will call Sam Tomera and Jason Steben</p> <p>and ask for a new day well installation.</p>
4-8-10			<p>Call work Ticket 41294457</p>
7-16-10			<p>Rect. Maint on Rect # 132</p>
7-19-10			<p>Rect Maint on Rect # 131</p>
12-4-10			<p>Gas Crew - [Redacted] Turn low read</p> <p>into me at [Redacted]</p>
12-10-10			<p>Check Read Point - OK - 867 mV, took hand</p> <p>at [Redacted] and found - 786 mV.</p> <p>Turn in con tag to troubleshoot area.</p>
12-23-10			<p>Trouble shoot area - until shunt at</p> <p>[Redacted] to work on down side of area -</p> <p>found also that gas main [Redacted]</p> <p>[Redacted] main's are not tie in.</p> <p>also Rect. on [Redacted], interference is</p> <p>too high - I will turn in con tag to</p> <p>run wire down from [Redacted] to</p> <p>even out area. Check Rect.</p>
12-24-10			<p>Trouble shoot area - 14 and wire, found</p>



Training Details and Attendance Sheet

Date: 10-8-12	Tailboard Lead: Redacted
Time Began: 0800	LAN ID: Redacted
Time Ended: 0900	Location Central Coat

Topics Discussed (Attach or identify all documents, handouts, or videos provided viewed or discussed.)

Importance of Verifying the Scale and Settings on your mapping measuring well. Some maps are printed out to different scales. So it is important to make sure every time we complete our paperwork at the beginning or end of the day that our measuring tool is set correctly so our documentation on the map is correct

Other (Include a brief summary of what was discussed.)

• Accurate documentation
 • verifying your settings on your measuring tool

ATTENDEES

Print Last Name	Signature	LAN ID	Print Last Name	Signature	LAN ID
Redacted			Redacted		