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May 20, 2013

Mr. Mike Robertson Gas Safety and Reliability Branch Safety and Enforcement Division California Public Utilities Commission 320 West 4<sup>th</sup> Street, Suite 500 Los Angeles, CA. 90013

Re: State of California – Public Utilities Commission

General Order 112-E Audit – PG&E's Diablo Division

Dear Mr. Robertson:

The Safety and Enforcement Division (SED), Gas Safety and Reliability Branch (GSRB) of the CPUC conducted a General Order 112-E audit of PG&E's Diablo Division, from November 5-9, 2012. On April 19, 2013, the SED submitted their audit report, identifying violations and findings. Attached is PG&E's response to the CPUC audit report.

Please contact Larry Berg at (925) 974-4084 or <u>LMB5@pge.com</u> for any questions you may have regarding this response.

Sincerely,

**/S/** 

Frances Yee

Attachments

cc: Aimee Cauguiran, CPUC Lisa Malashenko, CPUC Dennis Lee, CPUC Sunil Shori, CPUC Jane Yura, PG&E Larry Deniston, PG&E Larry Berg, PG&E

#### INSPECTION INFORMATION

<b>Inspection Dates</b>	Finding	CPUC Contact	CPUC Phone #
November 5-9, 2013	AIR-1	Aimee Cauguiran	(415) 703-2055

#### INSPECTION FINDING

# CPUC Finding

#### A. PG&E's Internal Audit Findings

Prior to the start of the audit, PG&E provided the results of their internal audit of the Diablo Division's (Division) records. Many of PG&E's internal audit findings are violations of PG&E's own standards, and therefore a violation of Title 49 Code of Federal Regulations (CFR) §192.13(c). Other issues found are violations of Title 49 CFR 192 as shown in the following table.

We note that several findings have already been corrected, while some were addressed during their subsequent maintenance. Please provide updates on items that were still pending corrective actions as of the last day of the audit.

**PG&E Internal Review Summary** 

Item	GO-112E	Topic	# of	# of Violations	# of Pending
	Section or		Violations	Corrected	Corrections
	49 CFR Part 192				(as of 11/9/ 2012)
1	192.723(b )(1) and 192.723(b )(2)	Distribution Leak Survey (2009-2010) – Missed or Late Surveyed	42	42	0
2	192.706	Transmission Leak Survey – Semi-annual (Late survey)	28	28	0
3	192.13(c)	Distribution Leak Repairs – Missing P/S reads, USA info	44	44	0
4	192.703	Distribution Leak Repairs – Late repair	168	168	0
5	192.483	Leak repairs – Missing pipe- to-soil reads on repairs made due to external corrosion	8	0	8
6	192.503(a)	Pressure test after repairs	2	2	0
7	192.481	Atmospheric corrosion – Late inspection and corrective action	10	10	0
8	192. 739(a)	Regulating station maintenance - Late	1	1	0

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9	192.743(a)	Inadequate relief capacity	1	0	1
10	192.805(b)	Pipeline Patrols, Odorant tests – Conducted by non- OQ personnel	15	15	0
11	192.625(f) and 192.13(c)	Missed odorant tests	22	22	0
12	192.727 and 192.13(c)	Deactivation of facilities (stubs, regulator station)	5	5	0
13	192.13(c)	Review of emergency zones, Instrument Calibrations (Pressure chart recorders), Late CPA resurveys, Missing rectifier reads when troubleshooting	17	11	6 (CPA resurveys)

#### **PG&E RESPONSE**

Updates for the three outstanding pending corrective items (Item # 5, # 9, and #13 in the table) are provided below.

Item #5 Missing pipe-to-soil reads on leak repairs made due to external corrosion: PG&E had performed a manual review of leak repair A-forms prior to this audit and had identified eight external corrosion leak repairs with no recorded pipe-to-soil readings. As part of its corrective actions, PG&E performed a query into the leak repair IGIS database, and found additional external corrosion leak repairs that did not have the pipe-to-soil reading recorded. As a result, PG&E has taken pipe-to-soil readings at all of these external corrosion leak repair locations as required by Gas Standard O-16. Please see Attachment A for a listing of these leak repairs and their pipe-to-soil readings to confirm adequate cathodic protection in the vicinity of the leak repair.

Item #9 <u>Inadequate relief capacity</u>: PG&E has corrected this finding by installing new regulators with restrictor plates and completed new relief valve calculations. Work was completed on December 19, 2012 under PM 30881734. Please see Attachment B for documentation of the work performed, the District Regulator Data Sheet, and the relief valve calculations.

Item #13 <u>Late CPA resurveys</u>: The six late CPA resurveys were all completed prior to the audit. PG&E had not updated the Internal Review Summary at the time of the audit to show the completion of these CPA Resurveys.

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### **ATTACHMENTS**

Attachment #	Title or Subject
A	AIR-1_5 List of Pipe to Soils at External Corrosion Leak
	Repairs
В	AIR-1_9 RV Calc

# **ACTION REQUIRED**

Action To Be Taken	Due Date	Completion Date	Responsible Dept.
No further action necessary			

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#### INSPECTION INFORMATION

Inspection Dates	Finding	<b>CPUC Contact</b>	CPUC Phone #
November 5-9, 2012	NOV – 1	Aimee Cauguiran	(415) 703-2055

#### INSPECTION FINDING

	HON FINDING
CPUC	B. Areas of Violations
Finding	1. Title 49 CFR §192.13 What general requirements apply to pipelines
	regulated under this part?
	"(c) Each operator shall maintain, and modify as appropriate, and follow the plans, procedures, and programs that it is required to establish under this part."
	a) PG&E WP4133-02 requires a Cathodic Protection Area (CPA) resurvey to be conducted once every six years. The Division missed the 6-year CPA resurvey for CPA D48-20 (11/2003 and 2/2010) and D48-26 (11/2004 and 2/2011) as required.
	PG&E O-16 requires yearly monitoring of areas where a steel main is cathodically protected via a locating wire. The yearly pipe-to-soil monitoring for CPA D48-26 (Plat# 48-CO2) on the distribution main at Concord Ave. and Bisso Ln. is not monitored yearly. The Division needs to add this location as a yearly location per PG&E standard O-16.

#### **PG&E RESPONSE**

PG&E agrees with this finding.

As noted above, these two Cathodic Protection Areas missed having their six-year resurveys completed, as specified in PG&E's work procedure WP 4133-02 by three months.

To prevent recurrence, all corrosion control activities, including resurvey schedules will be added to PG&E's Preventative Maintenance tool (SAP) during 2013. SAP will generate notifications of upcoming work on the schedule and track the timeliness to ensure the work is completed within the compliance time frame. In addition, the Sonoma Division Corrosion Supervisor has reviewed the requirement for resurveys with the Corrosion Mechanics in the October 12, 2012 tailboard briefing. (See Attachment C)

A yearly pipe-to-soil monitoring location has been established for the steel facilities at Concord Avenue and Bisso Lane. Please see Attachment D showing the new read with

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adequate cathodic protection.	adequate cathodic protection.			

# **ATTACHMENTS**

Attachment #	Title or Subject
С	NOV-1_Oct 12 Tailboard
D	NOV-1 Added Yearly to CPA D48-26

# **ACTION REQUIRED**

Action To Be Taken	<b>Due Date</b>	Completion Date	Responsible Dept.
Schedule all corrosion control maintenance in SAP	December 31, 2013		Asset Engineering
Establish new yearly monitoring point at Concord Ave and Bisso Lane	January 17, 2013	January 17, 2013	Diablo Division M&C

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#### INSPECTION INFORMATION

Inspection Dates	Finding	CPUC Contact	CPUC Phone #
November 5-9, 2012	NOV – 2	Aimee Cauguiran	(415) 703-2055

#### INSPECTION FINDING

CPUC Finding	B. Areas of Violations
or o'c r manig	2. 49 CFR § 192.723 Distribution Systems: Leakage Surveys.
	"(b)(2) A leakage survey with leak detector equipment must be conducted outside
	business districts as frequently as necessary,
	but at least once every 5 calendar years at
	intervals not exceeding 63 months"
	a) The Division exceeded the 63 month leak survey interval between 1/19/2005 and 4/22/2010 for leak survey plat 43-D07.
	b) Plat 65-D04 reflects a partial service that was leak surveyed in 10/9/2006. There was no record of a leak survey conducted on the partial service after 2006.

#### **PG&E RESPONSE**

a) PG&E agrees with this finding.

As noted above, for Plat Map 43-D07, PG&E missed the 63-month (to-the-date) leak survey interval requirement by three days.

To prevent recurrence, leak surveys are now scheduled and monitored using a system-wide tool which was implemented in January 2011.

b) PG&E respectfully disagrees with this finding.

During the audit, we discussed the fact that based on our records, PG&E is confident that the leak survey of this service was performed and documented on the adjacent plat (65-C04). It is a practice of PG&E, when creating a gas transmission leak survey map, to adjust the border of the map when only a small portion of the line will be overlapped onto an adjacent map. Therefore, the documentation of leak survey of this service is on the map 65-C04. Please see attached 2009 and 2011 leak survey maps of 65-C04. (Attachments E and F)

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# **ATTACHMENTS**

Attachment #	Title or Subject
Е	Leak Survey Map 65C04_2009
F	Leak Survey Map 65C04_2011

# **ACTION REQUIRED**

Action To Be Taken	<b>Due Date</b>	Completion Date	Responsible Dept.
No further action required			

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#### INSPECTION INFORMATION

<b>Inspection Dates</b>	Finding	<b>CPUC Contact</b>	<b>CPUC Phone #</b>
November 5-9, 2012	NOV – 3	Aimee Cauguiran	(415) 703-2055

INSPECT	TION FINDING		
CPUC	B. Areas of Violations		
Finding	3. 49 CFR § 192.481 Atmospheric corrosion control: Monitoring.		
	"(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 Then the frequency of		
	located: inspection is:		
	Onshore At least once every 3 calendar years,		
	but with intervals not exceeding 39		
	months		
	The following exposed mains were monitored by the Division for atmospheric corrosion beyond the 39-month required frequency:  • 10" DFM at Monument Boulevard and Mohr Lane, Concord – 4/22/2005 and 6/9/2011  • 10" DFM at Bancroft Road W/O Bentley Street, Concord – 4/22/2005 and 6/9/2011  • 12" DFM at 3285 and 3289 Beechwood, Lafayette – 12/20/2007 and 6/14/2011		

#### **PG&E RESPONSE**

PG&E agrees with this finding.

As noted above, the three sites exceeded the 39 month inspection frequency. The three sites were inspected for atmospheric corrosion in 2011 and are now in compliance.

To prevent recurrence, all atmospheric corrosion inspections of exposed distribution mains and services will be added to the SAP Preventative Maintenance tool by December 31, 2013 SAP will generate notifications of upcoming work on the schedule and track the timeliness to ensure the work is completed within the compliance time frame. In addition, the Diablo Division Corrosion Supervisor has reviewed the requirement for atmospheric

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corrosion monitoring with the Corrosion Mechanics in the October 12, 2012 tailboard
briefing. (See Attachment C)

### **ATTACHMENTS**

Attachment #	Title or Subject
С	NOV-1_Oct 12 Tailboard

# **ACTION REQUIRED**

Action To Be Taken	Due Date	Completion Date	Responsible Dept.
Schedule all atmospheric corrosion inspections of exposed distribution mains and services in SAP	December 31, 2013		Asset Engineering

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#### INSPECTION INFORMATION

<b>Inspection Dates</b>	Finding	<b>CPUC Contact</b>	CPUC Phone #
June 5-9, 2012	NOV – 4	Aimee Cauguiran	(415) 703-2055

INSPECTION	FINDING
CPUC Finding	B. Areas of Violations
	4. 49 CFR § 192.619 Maximum allowable operating pressure:
	Steel or plastic pipelines.
	"(a) No person may operate a segment of steel or plastic pipeline at a pressure that exceeds a maximum allowable operating pressure determined under paragraph (c) or (d) of this section, or the lowest of the following:
	(1) The design pressure of the weakest element in the segment"
	SED reviewed the regulator station record for RA-34 Point of Timber and Bixler, and discovered that the pressure rating for inlet fire valve FV-04 was unknown; therefore, the established maximum allowable operating pressure (MAOP) for the valve is unsubstantiated. The Division must ensure that station piping and valves are rated for the MAOP and that the MAOP does not exceed the design pressure of the weakest element of the regulating station.

#### **PG&E RESPONSE**

PG&E respectfully disagrees that this finding is a violation of 49 CFR § 192.619.

The PG&E MAOP Validation Team's research indicates that traceable and verifiable documentation for this valve is a Grove B4 with an ANSI 300 rating. This qualifies the valve to operate at up to 720 psi. Please see Attachment G for the research results.

Subsequently, Diablo Division Gas T&R has transferred the valve specification information onto the valve maintenance form for this valve.

The effort under way by PG&E's MAOP Validation team, as mentioned in recent audit responses for similar findings, will provide valve specification data for PG&E's

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maintenance organizations to populate transmission valve maintenance records. T	Γhis
system-wide effort is expected to be complete by December 31, 2013.	

### **ATTACHMENTS**

Attachment #	Title or Subject
G	NOV-4 MAOP Validation

# **ACTION REQUIRED**

Action To Be Taken	Due Date	Completion Date	Responsible Dept.
Complete Pipeline Features Listings and provide transmission valve specification information	December 31, 2013		MAOP Validation Team

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#### INSPECTION INFORMATION

Inspection Dates	Finding	<b>CPUC Contact</b>	CPUC Phone #	
November 5-9, 2012	AOC – 1	Aimee Cauguiran	(415) 703-2055	

#### **INSPECTION FINDING**

CPUC	C. Field Review				
Finding	The following cathodic protection monitoring locations did not meet the -850				
	mV criterion:				
	<ul> <li>Yearly location: 31 Bonita Court, Walnut Creek (CPA D45-24a), -830</li> <li>mV</li> </ul>				
	Bimonthly: 2601 Lucy Lane, Walnut Creek (CPA D45-25), -814 mV				
	Bimonthly: 29 Acorn Court, Walnut Creek (CPA D45-25), -720 mV				
	<ul> <li>Isolated (10%er): 1932 Woodmore Court, Concord, -759 mV</li> </ul>				
	<ul> <li>Isolated (10%er): 2070 Bethany Court, Concord, -501 mV</li> </ul>				
	<ul> <li>Isolated (10%er): 733 Mandarin, Walnut Creek, -817 mV</li> </ul>				

#### **PG&E RESPONSE**

All locations have been brought above the -850 mv pipe-to-soil potential criteria for adequate cathodic protection as follows:

1. 2601 Lucy Ln, Walnut Creek

Restored 12/11/12, -1005 mV

2. 29 Acorn Ct, Walnut Creek

Restored 12/11/12, -1062 mV

3. 31 Bonita Ct, Walnut Creek

Restored 12/11/12, -1061 mV

4. 1932 Woodmore Ct, Concord

Driveable Anode installed 12/19/12, -1625 mV

5. 2070 Bethany Ct, Concord

Driveable Anode installed 12/20/12, -1465 mV

6. 733 Mandarin, Walnut Creek

Driveable Anode installed 12/20/12, -1365 mV

Please see Attachment H for pipe-to-soil readings documentation.

#### **ATTACHMENTS**

Attachment #	Title or Subject
Н	AOC-1 CP Restored Reads

#### **ACTION REQUIRED**

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Action To Be Taken	Due Date	Completion Date	Responsible Dept.
No further action required			

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#### INSPECTION INFORMATION

Inspection Dates	Finding	CPUC Contact	CPUC Phone #	
November 5-9, 2012	AOC – 2	Aimee Cauguiran	(415) 703-2055	

#### INSPECTION FINDING

II IDI LC	E OF ECTION FINDING				
CPUC	D. Areas of Concern/Recommendations				
Finding	<ol> <li>SPA-03 Martinez Meter Station ("C" Street)</li> </ol>				
	The Division maintenance records show that there had been an ongoing concern since 2004 regarding failure of regulators to lock up during station maintenance. Also, Division personnel noted an issue with possible AC induction during the December 2011 maintenance at the station, where PG&E personnel were getting "shocked" while doing maintenance. According to Division representatives, there is a planned replacement for this station in 2013. Please provide status of the work planned for this station.				

#### **PG&E RESPONSE**

PG&E agrees with this concern.

A job (PM #41471916) has been established to replace the Regulator Station. The replacement is scheduled for mid-year construction in 2013. The job will address both the regulator lock-up issue, as well as the electrical interference issue.

#### **ATTACHMENTS**

Attachment #	Title or Subject
None	

#### **ACTION REQUIRED**

Action To Be Taken	<b>Due Date</b>	Completion Date	Responsible Dept.
Replace Martinez Meter & Regulator Station	October 31, 2013		Engineering & Design

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#### INSPECTION INFORMATION

<b>Inspection Dates</b>	Finding	CPUC Contact	CPUC Phone #	
November 5-9, 2012	AOC – 3	Aimee Cauguiran	(415) 703-2055	

#### **INSPECTION FINDING**

CPUC	D. Areas of Concern/Recommendations		
Finding	g 2. L-191 M.P. 28.18 – Briones Park @ Lafayette Ridge Trail		
	SED observed an exposed portion of the pipeline located on a hiking trail, accessible to the public. Due to its location, we are concerned that leaving the pipe exposed makes it more susceptible to external damage. Please provide status of the Division's plan to address the exposed section of the transmission pipeline.		

### **PG&E RESPONSE**

PG&E agrees with this concern.

Pipeline Engineering has initiated a job to lower sections of L-191 to address this issue along with several other L-191 locations within Briones Park. Design of job # 40754898 is nearing completion and a construction start date is scheduled for August 30, 2013.

#### **ATTACHMENTS**

	Attachment #	Title or Subject
	None	

# **ACTION REQUIRED**

Action To Be Taken	<b>Due Date</b>	Completion Date	Responsible Dept.
Lower L-191 at several locations within Briones Park	December 31, 2013		Engineering & Design
Diffolios I alk	2013		& Design

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#### INSPECTION INFORMATION

Inspection Dates	Finding	<b>CPUC Contact</b>	CPUC Phone #
November 5-9, 2012	AOC – 4	Aimee Cauguiran	(415) 703-2055

#### INSPECTION FINDING

CPUC	D. Areas of Concern/Recommendations
Finding	3. CPA D43-07, Casing EB-43-E16, DFM# 3004-01 at M.P. 1.02, Levee
	Road
	SED reviewed the 2011 and 2012 pipeline casing records and found that casing-to-soil readings were less negative than -850 mV indicating possible casing contact with the carrier pipe. Please provide status of work to remediate all casing contacts in the Division.

#### **PG&E RESPONSE**

PG&E agrees with this concern and the contacted casing has been added to the Corrosion Engineering - Casing Program tracker for remediation. An Action Plan was sent to the Diablo Division Corrosion Supervisor. (See Attachment I)

All contacted casings throughout PG&E's gas system are categorized based on an individual ranking which is determined by factors such as the contact type and pipeline segment rank as described in PG&E's Risk Management Procedure RMP-02. For Diablo Division, there are seven casings identified as being contacted which can be seen below. The priority given to each of these locations, based on the above criteria, was determined to be a lower priority as compared to other locations throughout PG&E's natural gas pipeline transmission system. The scheduled year for remediation for these seven casing contacts is 2015.

Line No./ CPA	MP	Location Description	
		Rd Xing, Arnold Industrial Way & Hwy 4	
3008-01/D48-02	1.09	offramp	
3008-01/D48-02	1.24	Hydro & Rd Xing, Hwy 242	
3006-01/D44-04	5.7	Hookson Rd w/o Bancroft	
		W Hookston to E Hookston @ Hwy 680	
3006-01/D44-04	5.3	(East Casing)	
		W Hookston to E Hookston @ Hwy 680	
3006-01/D44-04	5.27	(West Casing)	
3006-01/D44-04	5.18	N. Main St. N/O W. Hookston Rd.	
3004-01/D43-07	1.02	Rd Xing, Levee Road	

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# **ATTACHMENTS**

Attachment #	Title or Subject	
I	Diablo Contacted Casing 3004-01 MP1-02 Action Plan	

# **ACTION REQUIRED**

Action To Be Taken	<b>Due Date</b>	Completion Date	Responsible Dept.
Remediate seven casing contacts in	December 31,		Corrosion
Diablo Division	2015		Engineering

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#### INSPECTION INFORMATION

<b>Inspection Dates</b>	Finding	CPUC Contact	CPUC Phone #
November 5-9, 2012	AOC – 5	Aimee Cauguiran	(415) 703-2055

### **INSPECTION FINDING**

### CPUC Finding

### D. Areas of Concern/Recommendations

4. Cathodic protection monitoring: Separately protected short sections/ 10%er monitoring

During the field review, SED observed short sections of pipe which are separately protected and monitored on a 10-year cycle that did not meet the -850 mV criterion. Records of the most recent pipe-to-soil reads in 2011 showed these locations to have met the -850 mV criteria, however all three locations no longer met the -850 mV criterion during the SED field review.

Location	2011 Pipe-to-Soil	2012 SED Field
	Read	Review
1932 Woodmore Court,	-870 mV	-759 mV
Concord		
2070 Bethany Court,	-872 mV	-501 mV
Concord		
733 Mandarin, Walnut	-886 mV	-817 mV
Creek		

Since these locations are monitored on a 10-year cycle, the Division should provide guidance to its Corrosion Mechanics as to when it should consider installing new anodes at the locations to ensure cathodic protection of these sections of pipe until their next monitoring cycle.

#### **PG&E RESPONSE**

PG&E agrees with this concern.

Please see PG&E's response in AOC-1 above for the corrective actions taken at the three locations listed above. (See Attachment H)

PG&E is making changes in its SAP maintenance tool so that pipe-to-soil readings at these "10%er" locations that are -1000 mV or less will trigger a corrective notification. Corrective notifications would typically result in an anode installation, and a more negative pipe-to-soil

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potential. This change in the scheduling tool is expected to be in place by July 31, 2013.
potential. This change in the scheduling tool is expected to be in place by July 31, 2013.

### **ATTACHMENTS**

Attachment #	Title or Subject	
H	AOC-1_CP Restored Reads	

# **ACTION REQUIRED**

Action To Be Taken	<b>Due Date</b>	Completion Date	Responsible Dept.
Revise SAP maintenance tool to create			Asset
corrective notifications for <-1000 mV	July 31, 2013		Engineering
readings of isolated risers/services			

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