W. Jeff Koskie
Pipeline Safety and Compliance Manager
55 W. Fifth Street, M.L. GT-11A6
Los Angeles, CA 90013
Phone: 213 305-8660
Fax: 213-244-8223

September 11, 2015

Mr. Kenneth Bruno
Program Manager
Gas Safety and Reliability Branch
Safety and Enforcement Division
California Public Utilities Commission
320 W. Fourth Street, Suite 500
Los Angeles, CA 90013

Dear Mr. Bruno:

The Safety and Enforcement Division (SED) of the California Public Utilities Commission conducted a G.O. 112-E Operation and Maintenance Inspection of Southern California Gas Company's (SCG) Cathodic Protection (CP) Facilities in the Harbor Corridor (Inspection Unit) April 6-10, 2015. The inspection included a review of the Inspection Unit's CP and odorant records for calendar years 2013 and 2014 and random field inspections of pipeline facilities in the 182nd Street, Compton, Huntington Park, and San Pedro districts. SED staff also reviewed the Inspection Unit's Operator Qualification records, which included field observation of randomly selected individuals performing covered tasks.

SED staff identified one probable violation of G.O. 112, Reference Title 49 Code of Federal Regulations (CFR), Part 192 during the course of this inspection. SED also made one recommendation and several observations during the course of this inspection. These are described in the "Summary of Inspection Findings," which is enclosed with this letter
Attached are SoCalGas' written response, corrective actions and associated dates.

Please feel free to contact me at (213) 305-8660 if you have any questions or need additional information.

Sincerely,

W. Jeff Koskie

Cc: Ha Nguyen
Attachments

Summary of Inspection Findings
2015 SCG Harbor Corridor Inspection
April 6-10, 2015

I. SED Identified Probable Violations

Title 49 CFR §192.465(d) – External Corrosion Control: Monitoring

"Each operator shall take prompt remedial action to correct any deficiencies indicated by the [external corrosion control] monitoring."

The May 19, 1989, Federal Pipeline and Hazardous Materials Safety Administration's (PHMSA) Inspection Guideline and Interpretation #PI-89-006 for 192.465(d) states that, as a rule of thumb, PHMSA interprets "prompt" as having the "correction completed by the time of the next scheduled monitoring".

SED found numerous Cathodic Protection (CP) packages to be deficient for intervals exceeding SCG's routine monitoring frequency defined in SCG Gas Standard 186.0135, and as required in 49 CFR §192.465(d). SED identified CP packages that have been deficient for more than 15 months as listed in Attachment A. SED lists the following CP packages in Table 1 that continue to be deficient for more than 3 years:

Table 1. Deficient CP Packages in excess of 3 years.

District	Area	Date Deficiency Identified	Date noted CP Package submitted to SCG planning department	# of Days Deficient
182ND STREET	TOR09-3	5/9/2012	3/6/2013	1045
182ND STREET	C0567W-5	1/13/2012	Still Troubleshooting	1162
182ND STREET	C0590W-2	10/31/2011	10/23/2012	1236
182ND STREET	C0599W-2	10/31/2011	6/12/2013	1236
182ND STREET	C1051W-3	10/31/2011	11/6/2013	1236
182ND STREET	LA3218-5	8/24/2011	9/17/2011	1304
182ND STREET	C0421W-3	5/16/2011	10/29/2012	1404
COMPTON	C0600E-7	6/9/2012	11/17/2014	1014
COMPTON	C0184E-2	5/11/2012	4/26/2013	1043
COMPTON	C0184E-3	4/25/2012	4/26/2013	1059
COMPTON	LYN005-2	4/20/2012	10/3/2012	1064
COMPTON	C0642E-2	11/21/2011	2/20/2015	1215
COMPTON	C0642E-1	8/5/2011	3/20/2013	1323
SAN PEDRO	LA1666-2-1	10/24/2011	7/21/2014	1243

SED recognizes that in some instances, factors outside of SCG's control may be the cause of delay for restoring deficient CP packages (i.e. environmental, permitting, moratoriums, etc.). However, SED observed the cause of delays for the locations in Table 1 to be within the control of SCG. For example, CP technicians would list "not enough time to troubleshoot package" for action taken or "area needs new anodes", yet the lengthy installation of new anodes does not restore the CP package. SED believes the delays in restoring CP deficiencies were manageable by SCG and therefore violations of 49 CFR §192.465(d). Please provide SED with a status update on the remediation of the CP packages listed in Attachment A and Table 1 above.

Response and Corrective Action:

SoCalGas recognizes the need to reevaluate its CP policies and procedures. SoCalGas will be implementing changes to address the long-term Down Areas while developing a proactive approach to the CP areas. This will begin with establishing clear goals and expectations for prompt troubleshooting and reasonable remediation timelines. SoCalGas will continue to update SED as changes are implemented to improve the process. Below is an update to the CP Areas of concern and estimated completion dates.

District	Area	# of Days Deficient	CP Area Status	Response	Corrective Action	Estimated Completion Date
182ND STREET	TOR09-3	1045	UP	CP Area within tolerance ORDER # 520001077563; READ DATE 4/30/2015; READ -0.979 V	Installed anodes in CP Area to bring area within tolerance.	
182ND STREET	C0567W-5	1162	DOWN	CP Area out of tolerance ORDER #520001156633; READ DATE 8/27/2015; READ -0.844 V.	8/27/15 Short had not been cleared. Will continue to troubleshoot on next order.	December 2015, dependent upon the length of time it takes to troubleshoot the area to identify the problem that is causing the area to be Out of Tolerance.
182ND STREET	C0590W-2	1236	DOWN	CP Area Out of Tolerance ORDER #520001151102; READ DATE 4/1/2015; READ -0.675 V.	8/17/15 Delivered work notification letters to all anode installation locations except notification #2000212842, which is at a park. Work pending permit approval for final location.	December 2015,, provided permits are received and no other interference or issues are discovered.

182ND STREET	C0599W-2	1236	DOWN	CP Area out of tolerance ORDER #520001151595; READ DATE 6/1/2015; READ -0.518 V.	7/21/15, request for WBS approval on notification #30026892 has been approved. Submitted for permits to install anodes in CP Area to bring within tolerance.	December 2015,, provided permits are received and no other interference or issues are discovered.
182ND STREET	C1051W-3	1236	DOWN	CP Area out of tolerance ORDER 520001151066; READ DATE 5/29/2015; READ -0.576 V.	7/7/2015, WBS approval for notification #30026891 has been granted. Submitted for permits to install anodes in CP Area to bring within tolerance.	December 2015,, provided permits are received and no other interference or issues are discovered.
182ND STREET	LA3218-5	1304	UP	CP Area within tolerance ORDER 520001089259; READ DATE 4/29/15; READ -1.021 V.	Installed anodes to bring CP Area within tolerance and area read-up on 4/29/2015.	
182ND STREET	C0421W-3	1404	DOWN	CP Area out of tolerance ORDER 520001153846; READ DATE 8/21/2015; READ -0.847 V.	08/21/15 Area is out of tolerance. Kerostat insulators are in the planning stage. Rectifier project still waiting for city permits.	December 2015,, provided permits are received and no other interference or issues are discovered.

COMPTON	C0600E-7	1014	DOWN	CP Area out of tolerance 09-01-2015 read was down and read as -0.632 V.	7/16/15 CP Area is out of tolerance Possible new short, will take time to troubleshoot on next visit. 8/14/15 Read taken, and area is still out of tolerance. CP Area requires a second Rectifier to bring the CP Area within tolerance. 9/01/2015 Currently identifying area to place this second rectifier, then will submit for permit.	December 2016,, provided permits are received and no other interference or issues are discovered.
COMPTON	C0184E-2	1043	UP	CP Area within tolerance ORDER 520001073324; READ DATE 5/5/2015; READ -0.870 V.	5/05/15 Installed anode, tied in shunt, and then took pipe-to-soil reads at random locations and read all ECSs.	
COMPTON	C0184E-3	1059	DOWN	CP Area out of tolerance ORDER 520001150958; READ DATE 8/17/2015; READ -0.580 V.	6/22/15 Area is out of tolerance. Waiting on WOA for Approval. NO#30025245. 7/10/15 Worked from desk to enter into CPD after receiving WBS#S-82913.000. 7/29/15 Area down pending work orders. 8/4/2015: Sent Capital OMOs to Henkels McCoy to install multiple sets of anodes.	December 2015, provided no other interference or issues discovered within the CP Area.
COMPTON	LYN005-2	1064	UP	CP Area within tolerance ORDER 520001077057; READ DATE 5/22/2015; READ -0.957 V.	05/22/15 Found area reading up within criteria. Tied in new anodes w/shunt. Took final reads.	

COMPTON	C0642E-2	1215	DOWN	CP Area out of tolerance ORDER 520001153180; READ DATE 8/20/2015; READ -0.768 V.	8/22/15 Six anodes installed; however, area is still down. Will be converting from a galvanic system to impresses system. Start planning rectifier installation.	December 2016 because planning of installing a Rectifier and provided no other interference or issues are discovered.
COMPTON	C0642E-1	1323	UP	CP Area within tolerance ORDER 520001155285; READ DATE 5/4/2015; READ -0.750 V. TOLERANCE RANGE: LOWER -0.665 / HIGHER -2.000.	8/25/15 Area up since anodes were installed within CP Area	
SAN PEDRO	LA1666-2-1	1243	DOWN	CP Area out of tolerance ORDER 520001152579; READ DATE 4/28/2015, READ -0.844 V.	8/18/15 WR#54-38642 Pending permits to add ECS to north portion of CP Area 9/1/15 will continue to monitor progress.	December 2015, provided permits are received and no other interference or issues are discovered.

II. Concerns, Recommendations, and Observations Summary

1. During field visits on 4/8/2015 to isolated sections of steel lines (CP10) locations, SED observed the following locations in Table 2 that did not meet the negative -850 millivolt (mV) criteria since the last pipe-to-soil readings taken in 2013.

Table 2. CP10 Field Visit Locations

Location	Last Read Year	Last Read (mV)	4/8/2015 Read (mV)
25844 Pennsylvania Avenue, Lomita	2013	-490	-497
26836 Westvale Road, Palos Verde Peninsula	2013	-440	-473
26707 Eastvale Road, Palos Verde Peninsula	2013	-800	-695
1538 W 120th Street, Los Angeles	2013	-780	-836
2550 Pacific Coast Highway, Torrance	2003	-880	-606

Please provide records that show SCG's work orders or corrective actions performed between the last monitoring read in 2013 and SED's field visit on 4/8/2015 for the locations in Table 2. Additionally, please provide SED with an update for any remediation work performed following the 4/8/2015 field visits for the locations in Table 2.

Response:
25844 Pennsylvania Avenue, Lomita: Application for new permit was submitted to the city on September 9, 2015.

26836 Westvale Road, Palos Verde Peninsula: This service replacement was completed on September 1, 2015 on WO# 54-39709.

26707 Eastvale Road, Palos Verde Peninsula: Order mailed to city for permits on September 2, 2015.

1538 W 120th Street, Los Angeles: Service replacement currently in planning phase.

2550 Pacific Coast Highway, Torrance: As of April 21, 2015 this area is now within tolerance. Installed one 32# below service line anode and took final pipe-to-soil reads which resulted in reads within tolerance.

Corrective Action:
The following projects will be monitored within System Protection so that these CP10 will be addressed and completed.

- 25844 Pennsylvania Avenue, Lomita
- 26836 Westvale Road, Palos Verde Peninsula
- 26707 Eastvale Road, Palos Verde Peninsula
- 1538 W. 120th Street, Los Angeles

2. During a 4/7/2015 field visit to 320 S. Poinsettia Avenue in Compton, SED discovered an existing enclosure built around the meter assembly. The meter assembly appeared to be recently replaced, however the service regulator did not vent to outside in the new meter configuration. The service regulator vented inside of the meter enclosure, which leads directly to the crawl space of the residence. SCG must modify the service regulator vent so that it extends outside of the meter enclosure to minimize any risk of gas accumulation in the event of a regulator failure. Please provide SCG's plan of action at this meter location.

Response:
On April 20, 2015, the regulator on the meter set assembly at 320 S. Poinsettia Avenue in Compton was vented outside of the meter enclosure. This was completed on the Customer Services Order # 1156384879. The photographs showing the regulator vented to outside of the meter closure were submitted to the CPUC.

Corrective Action:
Gas Standard 142.03 *Hazardous or Unsatisfactory Conditions* was reviewed with Customer Services Field employees at Compton Base on April 29, 2015, and is reviewed annually. In addition, Compton Customer Services Field will review Gas Standard 185.02 *Pressure Regulation, Residential and Commercial* on Wednesday, September 2, 2015.

In addition, on August 27, 2015 Gas Standards 185.0300 *MSA – Installing, Rebuilding, and Inspections* and 182.0205 *Gas Meter Recess, Cabinet and Enclosure Requirements* were reviewed with Distribution Field Employees.

3. During a field visit to a commercial customer at 2760 Cabrillo Avenue in Torrance, SED discovered a heavily corroded pipe fitting on the customer side of the service meter that required immediate attention. The business manager was notified and 48-hour notice was given to repair the corroded pipe fitting or have service interrupted. Please provide SED with an update on the follow up actions SCG performed at this location.

Response:
Form 1813 (Notice of Hazardous/Unsatisfactory Conditions) was provided to the customer to address the corrosion on the houseline. The customer signed this Form 1813 on April 9, 2015, and agreed to repair the corrosion on the houseline.

Corrective Action:
Gas Standard 142.03 *Hazardous or Unsatisfactory Conditions* is reviewed annually with Customer Services Field employees.

4. During a field visit to CP Location LA2897-1, SED observed a below adequate pipe-to-soil reading (-425 mV) at 5544 119th Street, Los Angeles. An inspection of the LA2871-1 Rectifier discovered a blown fuse. The SCG employee did not have the correct fuse on hand to replace the blown unit so a follow-up visit was to be scheduled. Please provide SED with a status update on CP Location LA2897-1.

Response:
As of August 31, 2015, the blown fuse at the rectifier continues to be an issue in CP Area LA2897-1. Based upon troubleshooting, SoCalGas discovered the ground wire connection from the ground rod to rectifier is the problem. The SPS is scheduled to install new #14 gage wire to replace the existing wire on September 1, 2015. Once completed, a new fuse will be installed on the rectifier. Troubleshooting will continue in this area to address any other deficiencies.

Corrective Action:
CP Area LA2897-1 is being monitored on the CP Downer Report, and the System Protection Department will confirm the wire gage is replaced, fuse installed, and troubleshooting conducted to bring the area back within tolerance. Estimate Date of Completion March 2016.

5. During field visits to odorant intensity test locations in Harbor City and Compton, SED observed the following:

Table 3. Odorant Testing Observations

Odorant Test City	Observation
Harbor City	A SCG technician (tech) did not recognize an abnormal operating condition during the odorant intensity test. The sample gas pressure spiked to 30 psig[1], above recommended 5 psig[1] or less working pressure of the Odorometer instrument. The pressure remained at 30 psig for the duration of the odorant intensity test. The tech did not recognize the pressure spike until SED brought it to the employee's attention following the completion of the test.
Harbor City	A SCG employee did not check for any gas leaks (Ex. soap test or equivalent) on the tubing leading to the Odorometer instrument
Carson	A SCG employee did not check for any gas leaks (Ex. soap test or equivalent) on the tubing leading to the Odorometer instrument

[1]-pounds per square inch (psig)

SED recognizes that SCG employees may be subjected to increased levels of distraction while being scrutinized during an inspection, which may have contributed to the SCG employee not noticing the spike in sample gas pressure. However, SED has observed multiple instances of different SCG employees failing to leak check the tubing carrying the sample gas to the Odorometer instrument. A gas leak in close proximity to the Odorometer carries the greatest influence in potentially affecting the test results. Please provide SED with an update on how SCG plans to minimize reoccurrence in the future.

Response

Subsequent to the Harbor Corridor audit, this issue was raised during the Northwest North Valley audit during closing meeting on April 17, 2015. At that time, our Senior Engineer, Chemical/Environmental Engineering met with SED staff and explained the process and rationale.

Briefly, the intent of the test is to determine the odor intensity of natural gas. To prevent the operator from being influenced by other odors that could affect his sense of smell, Gas Standard 189.005 “Operation of Odorometer” requests the operator to perform the following checks:

3.2.1 The test should be void of ambient odors which might interfere with the test.
3.2.5 Check for and fix any gas leaks to avoid interference with the test.
3.2.7 Allow the atmosphere to purge through the sniffing chamber for one minute and then check for the absence of gas odors.

In training, operators are instructed to do the following:
a) Check that the test area is void of ambient odors before beginning the test (3.2.1).
b) Connect the gas source to the odorometer using the sampling line and check for leaks in connections to avoid odor interference with the test (3.2.5). This check can be performed by noticing gas odor in the air after the connection. If a gas odor is not detected at this time, an undetected minor leak would not interfere with the test.
c) Check for the absence of gas odors one more time at the sniffing chamber right before beginning the test (3.2.7).

At any time, if an odor interferes with the test, the test is stopped to correct the problem or re-scheduled.

Corrective Action: No action required.

Attachment A

CP packages that have been deficient for more than 15 months

Area	Initial Down Date	Last Read Date	Number of Days Out Of Tolerance	Protection Type
C0564W-4	06/27/2012	03/17/2015	996	Magnesium
WAT119-5	07/09/2012	02/25/2015	984	Magnesium
TOR11-2	07/25/2012	03/09/2015	968	Magnesium
LA0269-2	07/31/2012	03/04/2015	962	Magnesium
C0885E-1	08/16/2012	03/04/2015	946	Magnesium
COM013-8	08/21/2012	03/11/2015	941	Magnesium
WAT044-1	08/24/2012	02/23/2015	938	Magnesium
C0583W-2	09/14/2012	03/11/2015	917	Rectifier
C0175W-1	09/18/2012	03/09/2015	913	Magnesium
C0401W-1	09/18/2012	03/11/2015	913	Magnesium
C0603E-1	10/11/2012	03/02/2015	890	Magnesium
C0576W-1	10/25/2012	03/02/2015	876	Magnesium
WAT093-5	10/25/2012	03/18/2015	876	Magnesium
LA1655-3-1	10/31/2012	03/12/2015	870	Magnesium
COM005-1	11/27/2012	03/06/2015	843	Magnesium

C0670E-1	12/22/2012	03/10/2015	818	Magnesium
WAT086-6	01/10/2013	03/16/2015	799	Magnesium
WAT094-2	01/10/2013	03/13/2015	799	Magnesium
C0888E-4	02/28/2013	03/12/2015	750	Magnesium
LA1376-4-1	04/12/2013	03/17/2015	707	Magnesium
LYN006-1	04/22/2013	03/05/2015	697	Rectifier
C0183E-2	05/14/2013	03/04/2015	675	Magnesium
SL 37-49	06/12/2013	03/18/2015	646	Rectifier
WAT103-3	06/20/2013	03/02/2015	638	Magnesium
WAT082-10	06/24/2013	03/17/2015	634	Magnesium
LA0261-3	06/25/2013	03/19/2015	633	Magnesium
LA0262-5	06/25/2013	03/19/2015	633	Magnesium
TOR22-11	06/27/2013	03/13/2015	631	Magnesium
WAT113-1	06/28/2013	03/11/2015	630	Magnesium
C0504W-9	06/28/2013	03/19/2015	630	Rectifier
LA0269-1	07/03/2013	03/16/2015	625	Magnesium
C0658E-3	07/08/2013	03/09/2015	620	Magnesium
C0540W-3	07/16/2013	03/13/2015	612	Magnesium

C0546W-2	07/22/2013	03/04/2015	606	Magnesium
C0170W-6	07/30/2013	03/18/2015	598	Magnesium
ELS02-3	07/30/2013	03/19/2015	598	Rectifier
ELS02-4	08/01/2013	03/13/2015	596	Magnesium
C0207E-1	08/02/2013	03/18/2015	595	Magnesium
C0207E-2	08/02/2013	03/09/2015	595	Magnesium
C0409W-7	08/06/2013	03/09/2015	591	Magnesium
WAT026-1	08/06/2013	03/02/2015	591	Magnesium
C0216E-6	08/07/2013	02/26/2015	590	Rectifier
C0676E-1	08/07/2013	03/04/2015	590	Magnesium
C0650E-1	08/12/2013	03/10/2015	585	Interference
C1057W-5	08/21/2013	02/23/2015	576	Rectifier
C0593W-8	09/04/2013	03/10/2015	562	Interference
LA0344-4	09/12/2013	03/09/2015	554	Magnesium
C0576W-2	09/16/2013	03/13/2015	550	Rectifier
C0634E-1	09/18/2013	03/16/2015	548	Magnesium
LA3206-3	09/19/2013	03/17/2015	547	Magnesium
LA-0268-G	09/20/2013	03/17/2015	546	Magnesium

WAT093-4	09/20/2013	03/06/2015	546	Magnesium
C0405W-8	09/23/2013	03/10/2015	543	Magnesium
COM004-2	10/11/2013	03/18/2015	525	Magnesium
COM002-1	10/16/2013	03/04/2015	520	Magnesium
C0414W-3	11/05/2013	03/13/2015	500	Magnesium
C1066W-4	11/06/2013	03/05/2015	499	Magnesium
C1066W-12	11/07/2013	02/25/2015	498	Rectifier
C0561W-1	11/12/2013	03/17/2015	493	Magnesium
C1091W-2	11/13/2013	03/03/2015	492	Magnesium
C1061W-6	11/22/2013	02/24/2015	483	Magnesium
LA1358-2-3	11/22/2013	03/16/2015	483	Magnesium
LA1518-1-1	11/22/2013	03/11/2015	483	Magnesium
C1072W-1	11/27/2013	03/17/2015	478	Rectifier
C1027W-2	12/04/2013	03/19/2015	471	Magnesium
C0582W-3	12/05/2013	03/16/2015	470	Magnesium
C0582W-5	12/05/2013	03/12/2015	470	Magnesium
C0420W-2	12/06/2013	03/12/2015	469	Rectifier
C1031E-1	12/06/2013	03/10/2015	469	Magnesium

LA0263-2	12/06/2013	03/19/2015	469	Magnesium
C0593W-5	12/09/2013	02/27/2015	466	Magnesium
LA0268-3	12/09/2013	03/03/2015	466	Magnesium
LA0344-1	12/09/2013	02/26/2015	466	Magnesium
C0585W-7	12/10/2013	03/04/2015	465	Magnesium
C1055W-2	12/10/2013	03/04/2015	465	Magnesium
LA3448-2	12/10/2013	03/02/2015	465	Magnesium
C1052W-2	12/12/2013	03/05/2015	463	Magnesium
C1056W-5	12/16/2013	03/17/2015	459	Magnesium

As provided in Attachment A below, 46 of the 78 CP Areas have been brought back within tolerance or the corrective action has been identified. SoCalGas is committed to finalizing the corrective actions (short vs. anode) for the remaining 32 CP Areas with a target completion date of December 2015, provided permits are received and no other interferences or issues are discovered.

Attachment A				
Area	**CP Area Status**	**Response**	**Corrective Action**	**Estimated Completion Date**
C0564W-4	UP	04/15/15 CP Area within tolerance	CP Area within tolerance since anodes installed within CP Area.	
WAT119-5	UP	04/25/15 CP Area within tolerance	CP Area within tolerance since anodes installed within CP Area.	
TOR11-2	UP	05/5/15 CP Area within tolerance	CP Area within tolerance since anodes installed within CP Area.	
LA0269-2	DOWN	8/20/15 CP Area out of tolerance Plan to install multiple sets of anodes within CP Area	Sent Capital OMOs for multiple anode installation to HM on 08/21/2015.	December 2015, provided permits are received and no other interference or issues are discovered.
COM013-8	UP	8/20/15 CP Area within tolerance	Installed multiple sets of anodes within CP Area.	
WAT044-1	UP	08/03/15 CP Area within tolerance Installed multiple sets of anodes to bring area within tolerance.	Installed multiple sets of anodes within CP Area.	

C0583W-2	UP	06/12/15 CP Area within tolerance	Cleared above-ground short which brought CP Area within tolerance .	
C0175W-1	UP	06/23/15 CP Area within tolerance	Installed anodes and brought wires up to casing which brought CP Area within tolerance.	
C0401W-1	DOWN	05/21/15 CP Area out of tolerance Installed anodes; however, CP Area still out of tolerance	8/3/2015 100mV Shift Criteria was completed and area is now polarizing. Will visit location on 9/2/15 to take final reads and close package.	December 2015, based upon no additional issues discovered during final reads taken in CP Area.
C0603E-1	DOWN	07/17/15 CP Area out of tolerance Anodes will be installed in CP Area to bring within tolerance	08/21/15 Sent OMOs to HM to install multiple anodes.	December 2015, to get anodes installed and SPS to take reads after the anodes have been installed to confirm the CP Area is within tolerance and no other issues arise within area.
WAT093-5	DOWN	08/21/15 CP Area out of tolerance Plan to install anodes in this CP Area to bring area within tolerance.	7/31/15 Capital OMOs sent to HM for anode installation to bring area within tolerance.	December 2015, to get anodes installed and SPS to take reads after the anodes have been installed to confirm the CP Area is within tolerance and no other issues arise in the CP Area.
C0670E-1	DOWN	4/15/15 CP Area is out of tolerance Plan to install anode in CP Area to bring within tolerance.	08/18/15 Submitted for permits for anode installation.	December 2015, to get anodes installed and SPS to take reads after the anodes have been installed to confirm the CP Area is within tolerance and no other issues arise in CP Area.

WAT086-6	UP	7/27/2015 CP Area within tolerance	Installed anodes and brought wires up to casing which CP Area within tolerance.	
LA1376-4-1	DOWN	09/2/15 CP Area out of tolerance Main Replacement	The portion of steel main that had been problematic was replaced with plastic. Pending two service replacements to obtain new reads. New pipe-to-soil reads will be recorded once field work is completed.	December 2015, dependent upon the length of time it takes for the field work to be completed.
LYN006-1	UP	7/17/2015 CP Area within tolerance	Several shorts were found and cleared. In addition, line drop testing was conducted to identify whether there were any foreign interference from substructures. All interference was cleared. All these factors contributed in bringing the area within tolerance.	
C0183E-2	UP	8/05/2015 CP Area within tolerance due to anode installs to bring the area within tolerance	Installed anodes and tied in shunts to new anodes to bring the area within tolerance.	
WAT082-10	UP	8/24/2015 CP Area within tolerance	Installed multiple anodes to bring CP Area within tolerance.	
LA0261-3	UP	08/04/2015 CP Area within tolerance	Installed multiple anodes to bring CP Area within tolerance.	

LA0262-5	UP	09/2/2015: CP Area within tolerance	Installed multiple anodes to bring CP Area within tolerance.	
TOR22-11	UP	08/26/2015 CP Area within tolerance	Installed two anodes to bring CP Area within tolerance.	
ELS02-3	DOWN	09/2/15 CP Area out of tolerance Plan to install anodes to bring this area back within tolerance	9/2/15 Submitted for permits for anode installation.	December 2015, to get anodes installed and SPS to take reads after the anodes have been installed to confirm the CP Area is within tolerance and no other issues arise in CP Area.
C0207E-2	DOWN	09/2/15 CP Area out of tolerance Plan to install anodes to bring this area back within tolerance	8/31/2015 Sent HM OMOs for anode installation.	
C0409W-7	UP	9/2/ CP Area within tolerance	Installed anodes to bring area back within tolerance.	
WAT026-1	UP	9/2/ CP Area within tolerance	The read point was in concrete. Had to drill bar hole by riser to get a pipe-to soil read.	
C1057W-5	UP	9/2/ CP Area within tolerance	Installed anodes to bring area back within tolerance.	
C0593W-8	DOWN	09/2/15 CP Area out of tolerance Plan to install anodes to bring this area back within tolerance	Generate order to install anodes to bring this area back within tolerance.	December 2015, to get anodes installed and SPS to take reads after the anodes have been installed to confirm the CP Area is within tolerance and no other issues arise in CP Area.

C0576W-2	UP	09/2/15 CP Area within tolerance	Power output on rectifier turned up one tap on fine which contributed to the CP area back within tolerance.	
WAT093-4	DOWN	09/2/15 CP Area out of tolerance Plan to install anodes to bring this area back within tolerance	Permit issued for anode installation.	December 2015, to get anodes installed and SPS to take reads after the anodes have been installed to confirm the CP Area is within tolerance and no other issues arise in the CP Area.
C0405W-8	UP	09/2/15 CP Area within tolerance	Installed anodes to bring area back within tolerance.	
COM004-2	UP	09/2/15 CP Area within tolerance	Installed anodes to bring area back within tolerance.	
C0414W-3	UP	9/2/2015 CP Area within tolerance	Installed anodes to bring area back within tolerance.	
C0561W-1	UP	9/2/2015 CP Area within tolerance	Installed anodes to bring area back within tolerance.	
C1091W-2	UP	9/2/2015 CP Area within tolerance	Installed anodes to bring area back within tolerance.	
C1061W-6	UP	9/2/2015 CP Area within tolerance	Cleared short which brought the CP Area back within tolerance.	

LA1358-2-3	DOWN	09/2/15 CP Area out of tolerance Continue to troubleshoot to determine the cause of the area to be out of tolerance.	Anodes installed on 6/15/15; however, CP Area still out of tolerance. Continue to troubleshoot CP Area to identify what is causing the area to be out of tolerance. Identify whether there are any additional interference or shorts in the area. Determine whether more anodes need to be installed to bring this area within tolerance.	December 2015, to resolve the issue dependent upon the duration to troubleshoot and identify the cause of the problem.
C1027W-2	DOWN	09/2/15 CP Area out of tolerance Plan to install anodes to bring this area back within tolerance	Permit issued for anode installation.	December 2015, to get anodes installed and SPS to take reads after the anodes have been installed to confirm the CP Area is within tolerance and no other issues arise in the CP Area.
C0582W-3	DOWN	09/2/15 CP Area out of tolerance Plan to install anodes to bring this area back within tolerance	Generate order to install anodes to bring this area back within tolerance pending permits.	December 2015, to get anodes installed and SPS to take reads after the anodes have been installed to confirm the CP Area is within tolerance and no other issues arise in the CP Area.
C0582W-5	DOWN	09/2/15 CP Area out of tolerance Plan to install anodes to bring this area back within tolerance	Generate order to install anodes to bring this area back within tolerance.	December 2015, to get anodes installed and SPS to take reads after the anodes have been installed to confirm the CP Area is within tolerance and no other issues arise in the CP Area.

C1031E-1	UP	9/2/2015 CP Area within tolerance	Installed anodes to bring area back within tolerance.	
LA0263-2	UP	9/2/2015 CP Area within tolerance	Installed anodes to bring area back within tolerance.	
LA0344-1	UP	9/2/2015 CP Area within tolerance	Installed anodes to bring area back within tolerance.	
C0585W-7	DOWN	09/2/15 CP Area out of tolerance Plan to install anodes to bring this area back within tolerance	Generate order to install anodes to bring this area back within tolerance pending permits.	December 2015, to get anodes installed and SPS to take reads after the anodes have been installed to confirm the CP Area is within tolerance and no other issues arise in the CP Area.
C1055W-2	DOWN	09/2/15 CP Area out of tolerance Plan to install anodes to bring this area back within tolerance	Generate order to install anodes to bring this area back within tolerance pending permits.	December 2015, to get anodes installed and SPS to take reads after the anodes have been installed to confirm the CP Area is within tolerance an no other issues arise in the CP Area.
LA3448-2	DOWN	09/2/15 CP Area out of tolerance Plan to install anodes to bring this area back within tolerance	Generate order to install anodes to bring this area back within tolerance. Will submit for permit.	December 2015, to get anodes installed and SPS to take reads after the anodes have been installed to confirm the CP Area is within tolerance an no other issues arise in the CP Area.

C1052W-2	DOWN	09/2/15 CP Area out of tolerance Plan to install anodes to bring this area back within tolerance	Generate order to install anodes to bring this area back within tolerance pending permits.	December 2015, to get anodes installed and SPS to take reads after the anodes have been installed to confirm the CP Area is within tolerance an no other issues arise in the CP Area.
C1056W-5	UP	9/2/2015 CP Area within tolerance	Installed anodes to bring area back within tolerance.	