October 23, 2015

Mr. Kenneth Bruno
Program Manager
California Public Utilities Commission
Safety and Enforcement Division
Gas Safety and Reliability Branch
505 Van Ness Avenue
San Francisco, CA 94102-3298

Certified Mail Receipt No. 70132250000169118554

RE: General Order 112 Gas Inspection of Lodi Gas Storage, L.L.C.

Dear Mr. Bruno:

Lodi Gas Storage, L.L.C. (LGS) submits this written response to the Safety and Enforcement Division (SED) of the California Public Utilities Commission (Commission). On behalf of the SED, Willard Lam, Maria Solis, and Nathan Sarina conducted a General Order 112 inspection of LGS on June 15 – 19 and June 30 – July 2, 2015. The inspection findings identified by SED were provided to LGS on September 24, 2015. LGS addresses the inspection findings as noted by SED in the Summary of Inspection Findings in the following enclosed documents:

- Attachment #1 LGS Responses to Summary of Inspection Findings
- Attachment #2 Close Interval Survey
- Attachment #3 Revised Procedure 6.05 from LGS Operations & Maintenance Manual
- Attachment #4 Operator Qualification Records
- Attachment #5 Rectifier Inspection Records

If you have any questions, or require more information, please contact me at **gclark@lodistorage.com** or at (209) 368-9277 x21.

Sincerely,

Gregory N. Clark

Compliance Manager

Enclosures

cc: File #S3.03

K. Bruno, A. Cauguiran, W. Lam, D. Lee (via e-mail)

A. Anderson, S. Dupéré, E. Kuykendall, R. Russell (via e-mail)

Attachment #1



I. Probable Violations

A. Title 49 Code of Federal Regulations (CFR) §192.469 states:

"Each pipeline under cathodic protection required by this subpart must have sufficient test stations or other contact points for electrical measurement to determine the adequacy of cathodic protection."

Additionally,

Title 49 CFR §192.605(a) states:

"Each operator shall prepare and follow for each pipeline, a manual of written procedures for conducting operations and maintenance activities and for emergency response."

SED review of corrosion records found multiple instances of Lodi Gas Storage failing to record annual pipe-to-soil readings due to damaged or missing Electrolysis Test Stations (ETS). LGS relied on a third party contractor, Farwest Corrosion Control Company (Farwest) to be the subject matter expert (SME) and develop the ETS locations to provide an adequate determination of the cathodic protection on the pipeline. LGS explained that land owner and/or budget constraints caused difficulty in accessing the ETS locations, and contends that adjacent ETS locations could be used in lieu of the damaged or missing ETS location. However, LGS did not provide justification or consulted with Farwest to conduct a technical analysis (i.e. close interval survey) to demonstrate that the exclusion of those ETS locations still achieved an adequate sample of the overall cathodic protection level of the system.

Furthermore, LGS Procedure 6.05 Paragraph 4.6 states, "Recommended test station spacing shall generally not exceed 1-mile...Test leads found to be shorted and/or non-conductive during pipeline electrical potential surveys, shall be repaired or replaced prior to the next required survey". Thus, LGS is in violation of 49 CFR §192.605(a) for failure to repair or replace the damaged or missing test leads prior to the next required survey, and 49 CFR §192.469 for failure to demonstrate that it maintains sufficient test stations to determine adequacy of cathodic protection.

Table 1 lists the locations with damaged or missing ETS's for the period of 2012 through 2014.

System Station Map **Comments** Lodi 24 inch 707 + 45414M0126 Damaged or Missing ETS in 2012, 2013, 2014 808 + 37414M0218 Lodi 24 inch Damaged or Missing ETS in 2012, 2013, 2014 930+00414M0220 Damaged or Missing ETS in 2013, 2014 Lodi 24 inch Lodi 24 inch 1558+63 414M0234 Damaged or Missing ETS in 2013, 2014 1581 + 72414M0234 Lodi 24 inch Damaged or Missing ETS in 2014 012M103 Kirby 16 inch 80 + 81Damaged or Missing ETS in 2012, 2013, 2014 Kirby 16 inch 259 + 77012M106 Damaged or Missing ETS in 2012 275+05012M107 Kirby 16 inch Damaged or Missing ETS in 2012

Table 1. Damaged or Missing ETS locations

Unless LGS can provide justification to demonstrate its contention that remaining ETS locations provide adequate determination of cathodic protection, LGS must repair or replace damaged ETS as required by its procedure.

LGS Response:

Lodi Gas Storage, L.L.C. (LGS) hired a third party consultant, Titan Corrosion Services, Inc., to conduct a close interval survey in 2013 that confirmed the adequacy of the cathodic protection system (i.e., readings are more negative than -0.85v or there is a minimum of 100 mV of cathodic polarization). Excerpts from the close interval survey covering the areas identified by SED in Table 1 have been included as Attachment #2.

LGS revised Procedure 6.05 in its Operations & Maintenance Manual to clarify its process for complying with 49 CFR §192.469. A redlined version of the revised procedure has been included as Attachment #3. Additionally, LGS shall ensure that future annual corrosion survey reports prepared by Farwest clearly articulate the impact, or lack thereof, of damaged or missing ETS locations and subsequent actions/recommendations, if any.

B. Title 49 Code of Federal Regulations (CFR) §192.465(b) states:

"Each cathodic protection rectifier or other impressed current power source must be inspected six times each calendar year, but with intervals not exceeding 2 ½ months, to insure that it is operating."

LGS contracts Farwest to perform all corrosion related covered tasks for LGS facilities. Farwest performs the annual pipe-to-soil reading and rectifier inspections for LGS. The Farwest corrosion inspection reports for years 2012 through 2014 recommend LGS to monitor and record rectifier voltage and current outputs on a bimonthly schedule. During the inspection interval from 2012 through 2014, LGS did not have any personnel operator qualified to perform any corrosion related covered tasks. SED observed only one rectifier

inspection per calendar year, performed by Farwest. LGS failed to perform rectifier inspections at a minimum interval of six times each calendar year for 2012 through 2014, and therefore is in violation of 49 CFR §192.465(b).

LGS Response:

This finding was not discussed during the GO 112 audit closing conference. Unfortunately, SED's understanding of how LGS complies with 192.465(b) is not accurate. Farwest does not perform all corrosion related covered tasks for LGS facilities. Farwest does perform the annual corrosion monitoring required by 192.465(a) for LGS facilities. LGS does not currently have any NACE certified personnel on staff. However, the rectifier inspections required by 192.465(b) do not need to be performed by NACE certified technicians per the LGS Operator Qualification (OQ) Manual. LGS employs two Instrumentation and Electrical (I&E) Technicians that are qualified to conduct the rectifier inspections required by 192.465(b). The I&E Technicians conduct these inspections and document them on a log sheet, which was not requested by SED during the audit. The I&E Technicians' qualifications have been included as Attachment #4 and the rectifier monitoring records for 2012 – 2014 have been included as Attachment #5.

Please note that the rectifiers are also monitored with Mobiltex RMU which sends immediate alerts to the I&E technicians should an operational malfunction occur.

II. Areas of Concern / Observations / Recommendations

1. LGS has chosen to use companywide consultants managed by Buckeye Partners, L.P. to develop and implement the written continuing public education program that follows the baseline guidance provided in American Petroleum Institute's (API) recommended practice (RP) 1162. The baseline intent of 49 CFR §192.616(b) to assess the unique attributes and characteristics of the operator's pipeline and facilities within the local area of LGS's facilities could be better served by conducting grass-roots localized outreach to the 4 Stakeholder Audience's listed within API 1162 Table 2-1.

In addition, API section 2.4.7, Operator Employee Participation states in part the following: "As members of communities and community services organizations, informed employees of a pipeline operator can play an important role in promoting pipeline awareness. Operator employees can be a key part of public awareness efforts. Grass-roots employee contacts and communications can be particularly important in effectively reaching out to a community."

During the inspection, SED discovered LGS employees discussed one-on-one outreach to specific property owners along various parts of the transmission pipelines. However, LGS does not document any of the one-on-one outreach efforts as part of the Public Awareness

Procedure in 2012, 2013, or 2014. SED recommends documenting these outreach efforts to further demonstrate compliance with 49 CFR §192.616(b).

LGS Response:

LGS shall consider SED's recommendation regarding documentation of one-on-one outreach to specific property owners along various parts of the transmission pipelines.

2. LGS uses third party resources PAPA and Paradigm to develop and implement the majority of the Public Awareness Procedure included in the November 2014 Operations and Maintenance Manual. Records were not readily available from both of these sources during the inspection and records were inconsistent in part due to the annual changes to the Public Awareness Procedure. In addition, both of these companies compile and distribute their information differently. If LGS continues the use of both companies in the future, SED recommends LGS use one consistent set of records from both companies to ensure program documentation and evaluation results are consistent and to avoid overlap of specific tasks contained within the Public Awareness Procedure.

LGS Response:

LGS shall consider SED's recommendation regarding public awareness program documentation.