PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE SAN FRANCISCO, CA 94102-3298

December 8, 2016

GI-2016-04-LGS37-04

(rrussell@lodistorage.com)

Mr. Robert Russell, VP-Field Operations Lodi Gas Storage, LLC. P.O. Box 230 Acampo, CA 95220

SUBJECT: General Order 112 Inspection of Lodi Gas Storage, LLC Emergency Management Program

Dear Mr. Russell:

On behalf of the Safety and Enforcement Division (SED) of the California Public Utilities Commission, Maria Solis and Alin Podoreanu conducted a General Order 112¹ and CA Public Utilities Code Sections 950, 955, 956, 956.5 inspection of Lodi Gas Storage, LLC (LGS) from April 21 through 22, 2016. The inspection included a review of Emergency Management procedures and records for calendar year 2015.

A Summary of Inspection Findings (Summary), which contains recommendations identified by SED staff, is included as an attachment to this letter.

Please provide a written response indicating the measures taken by LGS to address recommendations within 30 days from the date of this letter. SED looks forward to the future success of the LGS personnel as they implement their Emergency Response Plan to minimize the potential hazards resulting from a gas pipeline emergency. The recommendations provided will ensure prompt and effective response and recovery to emergencies.

If you have any questions, please contact Alin Podoreanu at (916) 928-2552 or by email at alin.podoreanu@cpuc.ca.gov.

Sincerely,

Kuneth A. E

Kenneth Bruno Program Manager Gas Safety and Reliability Branch Safety and Enforcement Division

cc: Gregory Clark, LGS (gclark@lodistorage.com)

SUMMARY OF INSPECTION FINDINGS

A. Recommendations

1. <u>Title 49, Code of Federal Regulations (CFR) §192.605 Procedural manual for operations,</u> <u>maintenance, and emergencies states:</u>

"(a) General. Each operator shall prepare and follow for each pipeline, a manual of written procedures for conducting operations and maintenance activities and for emergency response. For transmission lines, the manual must also include procedures for handling abnormal operations. This manual must be reviewed and updated by the operator at intervals not exceeding 15 months, but at least once each calendar year. This manual must be prepared before operations of a pipeline system commence. Appropriate parts of the manual must be kept at locations where operations and maintenance activities are conducted."

SED reviewed the revised Emergency Response Plan for Lodi Gas Storage, LLC, May 20, 2016 (Emergency Response Plan) for the LGS facilities in San Joaquin, Sacramento, and Solano Counties. During the audit SED also reviewed the December 9, 2015, Emergency Response Plan and the 2015 Lodi Gas Storage, LLC, Operations and Maintenance Procedures (O&M Manual).

The Emergency Response Plan, Section 2, Pre-Emergency Planning and the Forward of the O&M Manual include a checklist and procedure for compliance with 49 CFR §192.605 (a) to prepare an emergency plan, to review and update at intervals not exceeding 15 months, but at least once each calendar year. Locations of the Emergency Response Plan within the main LGS Operations Office were verified during the audit.

In addition, SED verified that the O&M Manual and the Emergency Response Plan have been revised to the June 25, 2015 General Order 112-F instead of General Order 112-E.

2. <u>Title 49 CFR §192.615 (a) states:</u>

"Each operator shall establish written procedures to minimize the hazard resulting from a gas pipeline emergency. At a minimum, the procedures must provide for the following:

(a)(1) Receiving, identifying, and classifying notices of events which require immediate response by the operator."

SED reviewed the revised Emergency Response Plan, Section 3.2, Receiving Information, Section 3.3, Identifying Emergency Type, Section 3.4, Classifying Emergency Severity, form EM-1, Initial Notification Document, form EM-1, First On Scene Checklist, and O&M Manual Procedure 3.02, Telephone Answering Services. The procedures within these sections of the Emergency Plan and Section 3.04 of the O&M Manual satisfactorily demonstrate compliance with Title 49 CFR §192.615(a)(1). "(*a*)(2) Establishing and maintaining adequate means of communication with appropriate fire, police, and other public officials."

SED reviewed the revised Emergency Response Plan, Section 3.2 and 3.5.1, which includes procedures that describe when it is appropriate to notify 911 and how to employees maintain communications with emergency responders in the field. In addition, Section 3.5.1 of the revised Emergency Response Plan includes a description of the "Supervisor in Charge," or "Incident Commander," and the link between LGS personnel and emergency response personnel during coordination of response to an incident. All LGS employees are trained on the Incident Command System (ICS) and they receive refresher training annually. SED reviewed all LGS employee emergency response training records.

The ICS enables a coordinated response among jurisdictions and functional agencies, both public and private during an emergency. Using the ICS allows LGS to establish and maintain adequate means of communication with appropriate fire, police, and other public officials.

In addition, SED reviewed Section 6.0 and Appendix 3.0, Incident Command and Emergency Response of the Emergency Response Manual. These sections include Role and Duty Checklists and include detailed descriptions of all the ICS functions, how ICS will be implemented during an incident, and how LGS will liaison with first responders. LGS also includes a list of "Position Candidate Examples" for each position within the ICS structure and ICS forms to be used during an incident.

Emergency Notifications and Reporting, Section 5.0, of the Emergency Response Plan includes a comprehensive telephone contact list of Local, State, and Federal public agencies including first responders and the San Joaquin, Sacramento, and Solano Counties Certified Unified Program Agency (CUPA) contacts. In addition, based on collaboration during the audit LGS has added Railroad Crossings and their corresponding contact information to their Emergency Notification list.

LGS personnel has performed outreach to the public agencies that provide 911 services if there is an emergency reported in San Joaquin County where the LGS facilities are located since the audit in April. An example of the benefits of these liaison activities includes the San Joaquin County Sheriff's Office including the location of the LGS facilities as part of the 911 system for dispatchers. LGS has agreed to meeting with the corresponding agencies in Sacramento and Solano Counties by the end of 2016.

SED also reviewed the LGS answering service instructions that are used by the 24 hour operator for non-emergency and emergency calls when the (800) 307-1107 phone line is used to report potential incidents.

The Emergency Response Plan and Section 3.04 of the O&M Manual include procedures that comply with 49 CFR §192.615 (a)(2).

"(a)(3) Prompt and effective response to a notice of each type of emergency, including the following:

(i) Gas detected inside or near a building.

(ii) Fire located near or directly involving a pipeline facility.

- (iii) Explosion occurring near or directly involving a pipeline facility.
- (iv) Natural disaster."

SED reviewed Section 3.4, Classifying Emergency Severity, of the revised Emergency Response Plan which includes 2 levels of incidents and criteria to classify all incidents. The Operations Manager is responsible for classifying all minor and major emergencies.

Sections 3.6, Emergency Response Strategies, of the revised Emergency Response Plan identify 8 different types of natural gas emergencies and provide guidelines for response for each type of emergency.

The Emergency Response Plan and Sections 3.04, 3.05, and 3.06 of the O&M Manual include procedures that comply with 49 CFR §192.615 (a)(3).

"(*a*)(4) The availability of personnel, equipment, tools, and materials, as needed at the scene of an emergency."

The revised Emergency Response Plan, Section 7.0 includes an inventory of LGS Emergency Equipment and Emergency Valves that includes contractors and vendors available to respond to emergencies. Contact information for the Emergency Contractors is included as part of the Emergency Notifications and Reporting, Section 5.0 of the Emergency Response Plan.

The Emergency Response Plan also includes Section 1.3, Emergency Response Zones. The Emergency Response Zones are the zones surrounding the LGS wells, pipeline, or facilities that could be impacted by a natural gas release. The zones are delineated by select emergency valves that control LGS's ability to isolate sections of its facilities. A description of each zone includes maps with aerial photography; contact lists for police and fire; and related equipment within each zone (e.g. valve locations, size, type, GPS coordinates).

In addition, SED reviewed the on-call lists for employees that would respond to an emergency. The ICS Position Candidate Examples for the Incident Commander and section Chiefs ensure the availability of personnel and materials at the scene of an emergency.

The Emergency Response Plan and Section 3.04 of the O&M Manual include procedures that comply with 49 CFR §192.615 (a)(4).

"(a)(5) Actions directed toward protecting people first and then property."

SED reviewed the revised Emergency Response Plan, Section 1.1, Scope of the Manual and Sections 3.0, 4.0, 5.0, and 6.0, and Section 3.04 of the O&M Manual and has determined that compliance with 49 CFR §192.615 (a)(5) is satisfactory.

"(*a*)(6) Emergency shutdown and pressure reduction in any section of the operator's pipeline system necessary to minimize hazards to life or property."

SED reviewed the Section 3.6.1 of the Emergency Response Plan that includes a procedure for Emergency Shutdown and Pressure Reduction and Emergency and/or Manual Shutdown with a Loss of Communications. In addition, SED reviewed the O&M Manual that includes Procedure 3.04 and 3.06 for emergency shutdown and pressure reduction; O&M Manual Procedure 9.02, Blowdown and Purging Safety; and the Control Room Management Plan Section 2 and 3.

SED has determined that the above documents meet the intent of 49 CFR §192.615 (a)(6).

In addition, the Emergency Response Plan and Section 3.04 of the O&M Manual also satisfactorily meet CA Public Utilities Code, Sections 956 (c)(1) & (2).

"(a)(7) Making safe any actual or potential hazard to life or property."

SED reviewed the revised Emergency Response Plan and Section 3.04 of the O&M Manual and has determined that both plans comply with 49 CFR 192.615 (a)(7). In addition, see (a)(5) and (a)(4) above.

"(*a*)(8) Notifying appropriate fire, police, and other public officials of gas pipeline emergencies and coordinating with them both planned responses and actual responses during an emergency."

When SED reviewed the revised Emergency Response Plan and correspondence with appropriate fire, police, and other public officials for compliance with 49 CFR §192.615 (a)(1) and (a)(2), SED also considered 49 CFR §192.615 (a)(8). In addition, compliance with 49 CFR §192.615 (a)(8) is further met by LGS properly liaising with fire, police, and other public officials which cover planned responses during an emergency annually.

Based on SED's audit of applicable records, SED has determined that procedures and liaison efforts meet the intent of 49 CFR §192.615 (a)(8).

"(a)(9) Safely restoring any service outage."

SED reviewed the O&M Manual Pipeline Specific Operations and Maintenance Manual (PSOM), Control Room Management Plan Section 2 and 3, and the Emergency Response Plan associated procedures that would be implemented in order to safely restore gas service as a result of an emergency incident or abnormal operating condition affecting the LGS gas pipelines and facilities. SED has determined that the procedures meet the intent of 49 CFR §192.615 (a)(9).

LGS has an Employee Assistance Program (EAP) that is a resource for employees to manage stress during and after major events or incidents.

"(a)(10) Beginning action under \$192.617, if applicable, as soon after the end of the emergency as possible."

SED reviewed the Emergency Response Plan, Procedure 1.03, Investigation of Failures and Accidents and Procedure 1.01, Reporting and Control of Incidents, for investigation and reporting of failures and has determined that compliance with 49 CFR §192.615 (a)(10) has been met satisfactorily.

"(*a*)(11) Actions required to be taken by a controller during an emergency in accordance with §192.631."

SED addressed this section of the code for calendar year 2015 in the September 26, 2016, Safety and Enforcement Division audit letter for General Order 112F, Gas Inspection of Lodi Gas Storage, LLC; Control Room Management Records from 2013 to 2015 on June 27 to July 1, 2016.

In addition, during this audit SED also reviewed the procedures in Section 2 and 3 of the Control Room Management Plan in accordance with 49 CFR §192.631 and SED has determined that LGS is in compliance with 49 CFR §192.615 (a)(11).

"(b) Each operator shall:

(b)(1) Furnish its supervisors who are responsible for emergency action a copy of that portion of the latest edition of the emergency procedures established under paragraph (a) of this section as necessary for compliance with those procedures."

SED reviewed the 2014 and the 2015 distribution list and SED has determined that compliance with 49 CFR §192.615 (b)(1) has been met satisfactorily.

"(b)(2) Train the appropriate operating personnel to assure that they are knowledgeable of the emergency procedures and verify that the training is effective."

All LGS employees are trained on the Incident Command System (ICS) and they receive refresher training annually, see above discussion under 49 CFR §192.615 (a)(2).

SED reviewed table top exercises that were conducted in 2014 and 2015. In addition, SED reviewed the LGS Training Report for 2015 for all employees, which included DOT Manual Review/Training and HAZWOPER training. LGS also provided SED for review the test that is given to each employee after training is conducted on how to respond to abnormal operating conditions and Job Performance Evaluations that are filled out by employees who receive any other emergency response procedure training as listed in the Emergency Response Plan.

Section 2.2 of the Emergency Response Plan includes a description of emergency drills and training conducted per the Emergency Plan procedures. Section 2.2 also describes how LGS Supervisors will verify that employee training is effective by administering a written exam and/or conducting a drill.

SED has determined that compliance with 49 CFR §192.615 (b)(2) has been met satisfactorily. In addition, training the LGS personnel on ICS meets the requirements of General Order 112-F, Section 143.6, Compatible Emergency Response Standard.

(b)(3) Review employee activities to determine whether the procedures were effectively followed in each emergency."

As stated above as part of the compliance for 49 CFR §192.615 (b)(2) SED verified that employees activities are reviewed to determine whether the procedures were effectively followed in an emergency.

In addition, LGS personnel have also conducted table top emergency response exercises that included external fire, police, and other public officials. After Action Review critiques are prepared for all table top exercises to evaluate whether procedures were effectively followed and if not what the corrective actions will be.

SED recommends that Section 2.2 of the Emergency Response Plan include completing after action critiques for each emergency exercise conducted.

SED has determined that compliance with 49 CFR §192.615 (b)(3) has been met satisfactorily.

"(c) Each operator shall establish and maintain liaison with appropriate fire, police, and other public officials to:

(c)(1) Learn the responsibility and resources of each government organization that may respond to a gas pipeline emergency;

(c)(2) acquaint the officials with the operator's ability in responding to a gas pipeline emergency; "

"(c)(3) Identify the types of gas pipeline emergencies of which the operator notifies the officials;"

SED reviewed records for all liaison activities for fire, police, and other public officials. The LGS personnel provided records for 2015 and 2016.

During the annual liaison activities the LGS personnel learn the responsibility and resources of each government organization that may respond to a gas pipeline emergency; they acquaint the officials with the operator's ability in responding to a gas pipeline emergency; and they identify the types of gas pipeline emergencies of which the operator notifies the officials. Section 2.3 of the Emergency Response Plan discusses liaison activities that are conducted annually. In addition, revisions to the Emergency Response Plan are shared annually in person with each agency.

SED recommends that the Liaison with Emergency Responder Form #EM-8 include more detailed information related to each liaison activity. For example, noting on form EM-8 that the San Joaquin County Sheriff's Department has included locations of the LGS facilities to

their 911 system. SED applauds LGS for creating a very comprehensive Emergency Responder Form #EM-8 to maintain records of their annual liaison activities.

Since the audit LGS has meet with the San Joaquin County Department of Environmental Health, Office of Emergency Services (OES), Sheriff's Department, and the Public Works Department. Based on collaboration during the audit, LGS and committed to meeting with the same agencies in Solano and Sacramento Counties by the end of 2016.

SED recommends that the Emergency Response Plan include a list of the public agencies in each County that LGS will liaison with annually. For example, police (local and county), fire, public works, environmental health, OES, etc. In addition, SED recommends that LGS liaison with the State of California's Governors Office of Emergency Services representatives for Sacramento, San Joaquin, and Solano Counties.

Since the audit LGS has also agreed to add Reclamation Districts to their public awareness program to ensure they receive all the appropriate correspondence per 49 CFR §192.616. Also, LGS has agreed to add a layer into their Geographic Information System of all Reclamation Districts by December 31, 2016.

Based on collaboration during the audit LGS has added contacts for all Railroad companies that cross their facilities in their Emergency Response Plan.

LGS has agreed to conduct actual field exercises and/or table tops with first responders and public officials in the future.

SED recommends that LGS also follow-up with reserve and volunteer firefighters to encourage their participation during future table top and/or field exercises.

The table top and/or field liaison activities will also meet the CA Public Utilities Code Section 956.5 which states that owners and operators of intrastate transmission and distribution lines, at least once each calendar year, shall meet with each local fire department having fire suppression responsibilities in the area where those lines are located to discuss and review contingency plans for emergencies involving the intrastate transmission and distribution lines within the jurisdiction of the local fire department.

SED has determined that compliance with 49 CFR §192.615 (c), (1), (2), & (3) has been met satisfactorily. In addition, the current liaison activities and future planned fire fighter table top and field exercises will further meet the intent of CA Public Utilities Code Section 956.5.

SED has also determined that compliance with CA Public Utilities Code, Sections 956 (c)(3)(A)(B)(C)(E) has been met satisfactorily.

"(c)(4) Plan how the operator and officials can engage in mutual assistance to minimize hazards to life or property."

SED reviewed the Emergency Response Plan, Section 2.3 that describes face to face liaison annual activities and LGS requirements to discuss how the operator will engage in mutual assistance with public agencies.

SED recommends that LGS continue to explore mutual assistance opportunities with public officials and first responders to minimize hazards to life or property. Collaboration opportunities for mutual assistance were discussed with LGS during the audit and are discussed above. In addition, in advance of a potential prolonged evacuation, SED recommends that discussions with the Public Health Departments include the mechanics of public outreach to the surrounding community during such an event.

SED has determined that compliance with 49 CFR \$192.615 (c)(4) has been met satisfactorily. In addition, SED has determined that compliance with CA Public Utilities Code, Section 956 (c)(3)(D) has been met satisfactorily.

SED reviewed the new CA Public Utilities Code, Section 955.5 with the operator during the audit and the LGS personnel agreed to revise their standard procedures to include the new requirements of as listed in the CA Public Utilities Code, Section 955.5.