



STATE OF WASHINGTON
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION
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(360) 664-1160 • TTY (360) 586-8203

CERTIFIED MAIL

October 26, 2012

Roger Perreault
Air Liquide Industries, U.S. LP
2700 Post Oak Blvd
Suite 1800
Houston, TX 77056

Dear Mr. Perreault:

RE: 2012 Hydrogen Gas Pipeline Safety Inspection – Air Liquide, Kalama, WA

Staff from the Washington Utilities and Transportation Commission (staff) conducted a safety inspection on October 3 and 4, 2012, of Air Liquide Industries, U.S. LP, Kalama, WA. The inspection included a records review and inspection of the pipeline facilities.

Our inspection indicates 11 probable violations as noted in the enclosed report. We also noted three areas of concern, which unless corrected, could potentially lead to future violation of state and/or federal pipeline safety rules.

Your response needed

Please review the attached report and respond in writing by November 30, 2012. The response should include how and when you plan to bring the probable violations into full compliance.

What happens after you respond to this letter?

The attached report presents staff's decision on probable violations and does not constitute a finding of violation by the commission at this time.

After you respond in writing to this letter, there are several possible actions the commission, in its discretion, may take with respect to this matter. For example, the commission may:

- Issue an administrative penalty under RCW 81.88.040, or;



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- Institute a complaint, seeking monetary penalties, changes in the company's practices, or other relief authorized by law, and justified by the circumstances, or;
- Consider the matter resolved without further commission action.

We have not yet decided whether to pursue a complaint or penalty in this matter. Should an administrative law judge decide to pursue a complaint or penalty, your company will have an opportunity to present its position directly to the commissioners.

If you have any questions, or if we may be of any assistance, please contact Dennis Ritter at (360) 664-1159. Please refer to the subject matter described above in any future correspondence pertaining to this inspection.

Sincerely,



David D. Lykken
Pipeline Safety Director

cc: Bobby Skelton, Senior Maintenance Engineer, Air Liquide Industries, U.S. LP

Enclosure

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION
2012 Hydrogen Gas Pipeline Safety Standard Inspection
Air Liquide Industries, U.S. LP, Kalama, WA

The following probable violations and areas of concern of 49 CFR Part 191, 192 and WAC 480-93 were noted as a result of the 2012 inspection of the Air Liquide Industries, U.S. LP (Air Liquide), Kalama pipeline system. The inspection included a random selection of records, operation and maintenance, emergency response, and field inspection of the pipeline facilities.

PROBABLE VIOLATIONS

1. **49 CFR §191.22 National Registry of Pipeline and LNG operators.**

(b) *OPID validation. An operator who has already been assigned one or more OPID by January 1, 2011, must validate the information associated with each OPID through the National Registry of Pipeline and LNG Operators at <http://opsweb.phmsa.dot.gov>, and correct that information as necessary, no later than June 30, 2012.*

Finding(s):

The operator could not document they had validated their OPID by June 30, 2012, as required by the regulation.

2. **49 CFR §192.605 Procedural manual for operations, maintenance, and emergencies.**

(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.*

(b) *Maintenance and normal operations. The manual required by paragraph (a) of this section must include procedures for the following, if applicable, to provide safety during maintenance and operations.*

(8) *Periodically reviewing the work done by operator personnel to determine the effectiveness and adequacy of the procedures used in normal operation and maintenance and modifying the procedure when deficiencies are found.*

Finding(s):

The operator's procedure P-192.605(b)(3) requires "annual or more frequently as needed," reviews of personnel working under normal operating parameters to assess the effectiveness of O&M procedures and modify the procedure accordingly using Form F-192.605(b)(8). The operator could not document they followed this procedure or produce any completed Form F-192.605(b)(8). This same issue was also noted in the 2009 inspection. This review is a key part of the cycle to ensure pipeline safety. Air Liquide must make this review a priority.

3. **49 CFR §192.615 Emergency plans.**
(c) *Each operator shall establish and maintain liaison with appropriate fire, police, and other public officials to:*
(1) *Learn the responsibility and resources of each government organization that may respond to a gas pipeline emergency;*
(2) *Acquaint the officials with the operator's ability in responding to a gas pipeline emergency;*
(3) *Identify the types of gas pipeline emergencies of which the operator notifies the officials; and*
(4) *Plan how the operator and officials can engage in mutual assistance to minimize hazards to life or property.*

Finding(s):

The operator could not document that they had established and maintained contact with appropriate public officials other than Cowlitz County Fire District #5 (i.e. police and other public officials as noted in the regulation).

4. **49 CFR §192.616 Public awareness.**
(e) *The program must include activities to advise affected municipalities, school districts, businesses, and residents of pipeline facility locations.*

Finding(s):

The operator could not document that the PA plan included affected municipalities, school districts, businesses and residents of the operator's pipeline facility locations.

5. **49 CFR §192.616 Public awareness.**
(f) *The program and the media used must be as comprehensive as necessary to reach all areas in which the operator transports gas.*

Finding(s):

The operator could not document that the PA plan's programs and media used is comprehensive and reaches all areas in which the operator transports gas.

6. **49 CFR §192.616 Public awareness.**
(g) *The program must be conducted in English and in other languages commonly understood by a significant number and concentration of the non-English speaking population in the operator's area.*

Finding(s):

The operator could not document the PA plan's programs were conducted in English (or other languages) commonly understood in the population of the operator's area.

7. **49 CFR §192.616 Public awareness.**
(h) *Operators in existence on June 20, 2005, must have completed their written programs no later than June 20, 2006. The operator of a master meter or petroleum gas system covered under paragraph (j) of this section must complete*

development of its written procedure by June 13, 2008. Upon request, operators must submit their completed programs to PHMSA or, in the case of an intrastate pipeline facility operator, the appropriate State agency.

Finding(s):

The operator could not document there were written procedures in its PA plan specific to Kalama. The hydrogen line was included in Air Liquide's companywide PA plan but this does not address site specific issues associated with this pipeline and the public that live, work, drive and recreate near it.

8. **49 CFR §192.807 Recordkeeping (Subpart N Qualification of Pipeline Personnel).**

Each operator shall maintain records that demonstrate compliance with this subpart.

(a) *Qualification records shall include:*

- (1) *Identification of qualified individual(s);*
- (2) *Identification of the covered tasks the individual is qualified to perform;*
- (3) *Date(s) of current qualification; and*
- (4) *Qualification method(s).*

(b) *Records supporting an individual's current qualification shall be maintained while the individual is performing the covered task. Records of prior qualification and records of individuals no longer performing covered tasks shall be retained for a period of five years.*

Finding(s):

The operator could not document the contractor used for locating services was evaluated and qualified to perform the covered tasks per procedures P-192.614(c)(5) and P-192.707.

9. **WAC 480-93-110 Corrosion control.**

(3) *Cathodic protection equipment and instrumentation must be maintained, tested for accuracy, calibrated, and operated in accordance with the manufacturer's recommendations. When there are no manufacturer's recommendations, then instruments must be tested for accuracy at an appropriate schedule determined by the gas pipeline company.*

Finding(s):

The operator could not produce calibration documentation for the multimeter used in the 2009 (second half) CP survey or any calibration documentation for the half-cells used for pipe-to-soil readings for the years 2009 (second half), 2010, 2011 and 2012.

10. **WAC 480-93-188 Gas leak surveys.**

(3) *Each gas pipeline company must conduct gas leak surveys according to the following minimum frequencies:*

- (e) *Unodorized gas pipelines - At least monthly.*

Finding(s):

The operator did not leak survey the unodorized hydrogen pipeline monthly as required. They erroneously were surveying two times per year per the federal code. The operator is

not odorizing the pipeline as it makes the gas “unfit for its intended purpose” per WAC 480-93-015(6). The gas is used in a chemical process to make food grade preservatives.

11. **WAC 480-93-200 Reporting requirements.**

(8) *Each gas pipeline company must file with the commission, and with appropriate officials of all municipalities where gas pipeline companies have facilities, the names, addresses, and telephone numbers of the responsible officials of the gas pipeline company who may be contacted in the event of an emergency. In the event of any changes in such personnel, the gas pipeline company must immediately notify the commission and municipalities.*

Finding(s):

The operator could not document they had notified all municipalities where they have facilities, i.e. Port of Kalama and Cowlitz County.

AREAS OF CONCERN OR FIELD OBSERVATIONS

1. **49 CFR §192.603 General provisions.**

(b) *Each operator shall keep records necessary to administer the procedures established under §192.605.*

Finding(s):

The operator needs to be able to produce documents necessary to show proper administration of the procedures in 192.605. Due to an accident, the plant manager was not available during the inspection which made accessing documentation relating to certain procedures difficult and in some cases impossible. The operator should have a plan in place to ensure documentation is accessible at all times.

2. **49 CFR §192.605 Procedural manual for operations, maintenance, and emergencies.**

(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.*

(c) *Abnormal operation. For transmission lines, the manual required by paragraph (a) of this section must include procedures for the following to provide safety when operating design limits have been exceeded:*

(4) *Periodically reviewing the response of operator personnel to determine the effectiveness of the procedures controlling abnormal operation and taking corrective action where deficiencies are found.*

Finding(s):

The operator’s procedure P-192.605(c)(1) states that “procedures used during the abnormal operation should be reviewed periodically using Form F-92.605(c)(4) to ensure they are effective.” The operator could not document they had conducted a review or produce any completed Form F-192.605(c)(4). The operator needs to define what “periodically” means in the procedure and incorporate this into the procedure.

3. **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, determined in accordance with subparts C and D of this part...
 - (2) The pressure obtained by dividing the pressure to which the segment was tested after construction as follows:
 - (i) For plastic pipe in all locations, the test pressure is divided by a factor of 1.5.
 - (ii) For steel pipe operated at 100 p.s.i. (689 kPa) gage or more, the test pressure is divided by a factor determined in accordance with the following table:

Factors (see Note)

Class location	Installed Before 11/12/1970	Installed After 11/11/1970
1	1.1	1.1
2	1.25	1.25
3	1.4	1.5
4	1.4	1.5

Finding(s):

The operator's documentation of the MAOP was based on the hydrotest completed after construction of the pipeline. This form used to document the MAOP, however, is incomplete. The operator needs to complete the form and have the appropriate company official sign it. During the inspection, the calculated MAOP was confirmed based on construction documents and hydrotest records, however, the operator's record document needs to be finalized.