

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
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April 14, 2011

GA2010-21

Michael Lamond, Administrator
Alpine Natural Gas
15 St. Andrews Road,
P.O. Box 550,
Valley Springs, CA 95252

SUBJECT: General Order 112-E Audit of Alpine Natural Gas

Dear Mr. Lamond:

On behalf of the Utilities Safety and Reliability Branch (USRB) of the California Public Utilities Commission, I conducted a General Order (GO) 112-E Inspection of Alpine Natural Gas (ANG) from December 13 through 15, 2010. The audit included a review of the records of 2008 and 2009, and field inspections.

During the audit, I identified violations of GO 112-E. A copy of the inspection summary itemizing the violations is enclosed. Please note that the violations included within the Audit Summary may differ from the potential violations discussed with you during the exit meeting of our audit. Any differences are generally attributed to research, conducted subsequent to the audit, which can result in some potential violations being excluded and other violations, not discussed during the exit meeting, being included in the Audit Summary.

Within 30 days of your receipt of this letter, please provide a written response indicating the measures taken by ANG to address the violations noted in the Audit Summary and the date they were corrected.

If you have any questions, please contact me at (916) 928-3826.

Sincerely,

A handwritten signature in blue ink, appearing to read "Banu Acimis", written over a horizontal line.

Banu Acimis, P.E.
Senior Utilities Engineer
Utilities Safety and Reliability Branch
Consumer Protection and Safety Division

Enclosure: Audit Summary

AUDIT SUMMARY

I. Title 49 Code of Federal Regulations (CFR), §192.13 What general requirements apply to pipelines regulated under this part?

§192.13(c) requires that "Each operator shall maintain, modify as appropriate, and follow the plans, procedures, and programs that it is required to establish under this part."

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

§192.605(a) requires that "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..."

§192.605(b) requires that "*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.

(1) Operating, maintaining, and repairing the pipeline in accordance with each of the requirements of this subpart and subpart M of this part.

(2) Controlling corrosion in accordance with the operations and maintenance requirements of subpart I of this part.

During the review of ANG's Operation and Maintenance (O&M) Manual, the following deficiencies were identified.

A. ANG's O&M Manual, Leakage Surveys Section states "Alpine currently contracts with Heath consultants for its Leak Surveys. Heath's OQ Plan was reviewed and accepted as compliant with 49 CFR §192.723, Appendix D-1 & D-2 are the records reviewed by Alpine and will be updated appropriately during future Surveys. A Heath Combustible Gas Indicator (CGI), Model 500 will also be used for pinpointing any leaks detected."

ANG gas leakage survey records showed that A11 business districts were surveyed on April 4, 2009 by ANG personnel and annual gas leak surveys are conducted by ANG employees with a company owned CGI unit.

The following is a list of items that should be added to ANG's O&M Manual:

- Type of gas leak surveys, equipment used, and personnel who conducts gas leak surveys
- Calibration frequency and method of CGI which is used for gas leak surveys

ANG needs to ensure that the CGI is calibrated on a regular basis, at the frequency indicated by the manufacturer and that records are maintained for each calibration. ANG did not have any CGI calibration records for 2008 and 2009.

B. ANG's O&M Manual, Odorization Section, Sampling Requirements, Item 4 requires that "Odorant sampling instrument calibration shall be conducted at an interval not exceeding once per calendar year."

ANG odorometer calibration records showed that the odorometer was not calibrated in 2009 and 2010.

ANG needs to ensure that its odorometer is calibrated periodically, not exceeding the manufacturer's recommended frequency and that records are maintained for each calibration.

C. ANG's O&M Manual, External Corrosion Control - Monitoring Section, Equipment and Materials states "Tinker-Razor, Model CPV-4 Voltmeter, Voltmeter contact leads". ANG personnel also use a copper-copper sulfate half cell for cathodic protection surveys.

ANG does not have any calibration and maintenance records for its voltmeter or copper-copper sulfate equipment.

ANG needs to check the accuracy of the voltmeter and maintain it periodically, not exceeding manufacturer's recommended frequency. Similarly, the copper-copper sulfate half cell electrode needs to be calibrated to make sure that it functions accurately. Records need to be maintained regarding the calibration of the voltmeter and copper-copper sulfate half cell.

D. ANG's O&M Manual does not specify the type of equipment used to locate and mark underground gas pipelines. ANG needs to modify its O&M Manual to include the type of equipment it uses, such as a Pipe Horn, and the method and frequency of calibration and maintenance for the equipment.

ANG owns and operates Pipe Horn equipment to locate and mark underground gas facilities; however, ANG failed to demonstrate records of calibration and maintenance performed in 2008, 2009, and 2010. ANG should calibrate and maintain its equipment used to locate and mark gas facilities as frequently as necessary, but not to exceed manufacturer's recommended frequency.

II. Title 49 CFR §192.487 Remedial Measures: Distribution lines other than cast iron or ductile iron lines.

§192.487(a) General corrosion requires that "Except for cast iron or ductile iron pipe, each segment of generally corroded distribution line pipe with a remaining wall thickness less than that required for the MAOP of the pipeline, or a remaining wall thickness less than 30 percent of the nominal wall thickness, must be replaced. However, corroded pipe may be repaired by a method that reliable engineering tests and analyses show can permanently restore the serviceability of the pipe. Corrosion pitting so closely grouped as to affect the overall strength of the pipe is considered general corrosion for the purpose of this paragraph".

As a result of the GO 112E audit conducted in 2008, Mr. Shori identified that ANG's O&M Manual needed to include details about measuring wall thickness to verify that wall loss is not more than 10% due to corrosion.

On May 22, 2009, in response to USRB's safety audit letter, ANG administrator stated: "*The ANG O&M Manual procedures, 605 General Pipeline Repair, page 30, column 1-2, and 487-C Remedial Action for Localized Corrosion, page 58, column 2, paragraphs 1 and 5, have been added in order to specify how corrosion pit depth will be measured and by whom.*"

ANG's response indicated that related section had been added to its O&M Manual and ANG would take measurements to record any wall loss.

Page 33 of ANG's O&M Manual, General Pipeline Repair states that "Wall Thickness Loss: Wall thickness loss shall be measured by an individual that is qualified to perform such a measurement using either a pit depth gauge or a sonograph instrument."

ANG's O&M Manual, External Corrosion Control- Monitoring section, Exposed Pipe states that "Whenever steel pipe is exposed for any reason, it shall be thoroughly inspected for corrosion damage and coating damage according to § 192.459."

In a review of the updated version of the O&M Manual, I found that related section was included. However, I observed that ANG did not have any equipment to measure the pipe wall thickness in order to record the wall loss in case there is any active corrosion on its steel pipeline.

Please inform us what equipment is currently used to measure wall thickness of a segment of steel pipeline.

III. Title 49 CFR §192.615 Emergency plans.

§192.615(b) requires that "Each operator shall:

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

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

During the review of ANG's Emergency Plan and exercise records, I found that ANG did not conduct any emergency exercise review and training for its employees in 2009.

This is a repeat violation which was previously identified by Mr. Shori as a result of USRB's gas safety audit conducted in 2008.

On May 22, 2009, in response to USRB's safety audit letter, ANG administrator stated: "*ANG will adhere to the provisions of the O&M Manual pertinent to 192.615 (b) (2) and (c) for annual training of appropriate operating personnel and liaison with fire, police and other emergency responders regarding the provisions of the ANG gas Emergency Plan. These review sessions will be recorded and maintained by ANG on appropriate company forms.*"

ANG needs to ensure that annual emergency exercise is conducted for its employees as it is stated in its Emergency Plan to verify the effectiveness of training of its personnel and to review employees' activities to determine if the employees are knowledgeable of the emergency procedures and whether the procedures were effectively followed in emergency situations. Emergency exercises can be scenario based, table topic, or review of actual emergency events.

IV. Title 49 CFR §192.707 Line markers for mains and transmission lines.

(a) Buried pipelines. Except as provided in paragraph (b) of this section, a line marker must be placed and maintained as close as practical over each buried main and transmission line:

(1) At each crossing of a public road and railroad; and

(2) Wherever necessary to identify the location of the transmission line or main to reduce the possibility of damage or interference.

During our field check on December 15, 2010, I observed that the pipeline marker located on the south west corner of Heinemann and Silverrapids was broken. I also found that Valve number 36 located at the same location did not have an identification number.

ANG needs to ensure that gas pipeline markers for its main pipeline are properly installed and all valves have identification tags.

V. Title 49 CFR §192.739 Pressure limiting and regulating stations: Inspection and testing.

§192.739(a) requires that "Each pressure limiting station, relief device (except rupture discs), and pressure regulating station and its equipment must be subjected at intervals not exceeding 15 months, but at least once each calendar year, to inspections and tests to determine that it is—

- (1) In good mechanical condition;
- (2) Adequate from the standpoint of capacity and reliability of operation for the service in which it is employed;
- (3) Except as provided in paragraph (b) of this section, set to control or relieve at the correct pressure consistent with the pressure limits of §192.201(a); and
- (4) Properly installed and protected from dirt, liquids, or other conditions that might prevent proper operation.”

ANG's O&M Manual, Regulator Station Inspection procedure states that ANG has three types of inspections. Inspection A: "Monthly", Inspection B: Regulator Station Visual Inspection "Annual", and Inspection C: Regulator Station Operational "Five Year".

ANG regulator station inspection records showed that the most recent annual maintenance (Inspection B) of ANG's regulator station was performed on September 22, 2010; however, the normal operating and lock up pressure settings of the regulator and the monitor were not checked and recorded to verify the adequacy, safety, and reliability of the overpressure protection systems. Inspection B, Annual Regulator Station Visual Inspection procedure does not list the requirements which are contained under § 192.739 (a)(1), (2), and (3). According to ANG's definition of regulator station inspection types, last C type inspection was conducted on September 1, 2009.

ANG must conduct annual maintenance of its regulator station to ensure that pressure regulator station and its equipments are in compliance of §192.739. Specifically, mechanical condition, normal operating and lock up pressure settings of the regulator and the monitor should be determined. Additionally, ANG needs to ensure that over pressure protection devices are installed properly and protected from dirt, liquid, or other conditions that might prevent proper operation. ANG also needs to add the necessary instructions to its Annual-Inspection B procedure in its O&M Manual.

VI. Title 49 CFR §192.805 Qualification program.

Each operator shall have and follow a written qualification program. The program shall include provisions to:

- (a) Identify covered tasks;
- (b) Ensure through evaluation that individuals performing covered tasks are qualified;
- (c) Allow individuals that are not qualified pursuant to this subpart to perform a covered task if directed and observed by an individual that is qualified;
- (d) Evaluate an individual if the operator has reason to believe that the individual's performance of a covered task contributed to an incident as defined in Part 191;
- (e) Evaluate an individual if the operator has reason to believe that the individual is no longer qualified to perform a covered task;
- (f) Communicate changes that affect covered tasks to individuals performing those covered tasks;
- (g) Identify those covered tasks and the intervals at which evaluation of the individual's qualifications is needed;

A. ANG's O&M Manual, Leakage Surveys Section states "Alpine currently contracts with Heath consultants for its Leak Surveys. Heath's OQ Plan was reviewed and accepted as compliant with 49 CFR §192.723, Appendix D-1 & D-2 are the records reviewed by Alpine and will be updated appropriately during future Surveys."

ANG's OQ Plan, Attachment A: Covered Tasks and Identified Abnormal Operating Conditions (AOCs) states that AOCs are considered to be task specific." ANG's OQ Plan defines all AOCs

specific to each covered task. However, Heath Consultants OQ Plan given in Appendices D1 & D2 of ANG's O&M Manual did not provide a list of AOCs specific to covered tasks that they perform as a contractor of ANG.

§192.803 defines AOC as "condition identified by the operator that may indicate a malfunction of a component or deviation from normal operations that may:

- (a) Indicate a condition exceeding design limits; or
- (b) Result in a hazard(s) to persons, property, or the environment."

ANG needs to ensure that its contractors performing covered tasks on its pipeline facilities should have a complete OQ program and they have the ability to recognize and react to all AOCs properly and timely to provide public and employee safety and prevent any incidents. Additionally, contractor's OQ program should be placed in ANG's OQ Plan.

B. ANG's OQ Plan, Part Four: Evaluation Method

4.3 Re-evaluation intervals states "ANG has chosen to establish a re-evaluation interval for each course from Energy U. ANG may evaluate complex, infrequently-performed, safety-critical knowledge and skill elements of a task more frequently than the simple, frequently-performed aspects of the same task... Re-evaluation intervals for evaluations for MEA Energy U training program ranges from 12-60 months as an example P.E. fusion is evaluated yearly."

Part ten of ANG's OQ also states that re-evaluation intervals are listed in Attachment E.

During the review of the OQ records, the following items were noted:

- (1) ANG's OQ Plan does not identify the re-evaluation intervals for each covered task that is performed by ANG personnel.

ANG's OQ Plan should be modified to specify re-evaluation interval for each covered task.

- (2) Mechanical fitting qualification records showed that ANG employees Larry Oliveira and Matt Helm received instructions on the proper joining procedures for the permasert and con-stab mechanical fittings and were evaluated by Independent Utility Supply Company on July 7, 2010. However, they were not trained and qualified for mechanical fitting procedures for PE gas pipeline prior to this date even though the records showed that both employees have installed mechanical fittings since 2007.

ANG needs to ensure that its employees are qualified to perform the covered tasks and employee qualification records are maintained.

- (3) ANG's OQ Plan, Attachment B: Evaluation Methods Incorporated by Reference states "The following evaluation methods have been reviewed by ANG and determined to be acceptable for qualification in the tasks included:

- Polyethylene Piping Manufacturer Joining and Joint Qualification Procedures
- Polyethylene Piping Electrofusion Joining and Joint Qualification
- Production Welding of Steel Pipelines (API 1104 Qualification)

However, ANG's OQ Plan does not identify the evaluators who conduct the annual requalification performance evaluations. Also, ANG did not provide operator qualification records for its evaluators for PE joining covered tasks.

Additionally, neither ANG's O&M Manual nor OQ Plan contains the following elements for welding of steel pipelines.

- (a) A copy of evaluation methods and adopted procedures that are used to qualify ANG employees and other contractors.
- (b) Identification of the evaluator and evaluator's operator qualification records.

(c) Re-evaluation interval adopted by ANG.

ANG's OQ Plan should include the specifics of the evaluation methods, identification of evaluators along with their OQ records, and re-qualification interval for joining of PE pipe and welding of steel pipe used to evaluate employees' ability to perform the covered tasks, and recognize and react to AOCs.

OBSERVATIONS AND CONCERNS

During the review of gas leak reports, I observed that some necessary data fields such as time of leak discovery and investigation, exact address of the leak location were not filled out completely and properly on the forms. Additionally, there was no data field for action taken as a result of ANG's discovery and investigation of gas leaks.

ANG needs to ensure that all data fields on the gas leak reports are filled out completely and accurately to provide essential information about mitigative and preventive actions taken to prevent any hazards to life and property.