NOTICE OF PROBABLE VIOLATION
and
PROPOSED COMPLIANCE ORDER

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

April 17, 2012

Mr. Jay Ignacio
President
Hawaii Electric Light Company
1200 Kilauea Avenue
Hilo, Hawaii 96720-4295

CPF 5-2012-6011

Dear Mr. Ignacio:

On March 28 and 29, 2011, a representative of the Pipeline and Hazardous Materials Safety Administration (PHMSA), pursuant to Chapter 601 of 49 United States Code, inspected Hawaii Electric Light Company (HELCO)'s No. 6 Fuel Oil pipeline facilities in Hilo, Hawaii.

As a result of the inspection, it appears that you have committed probable violations of the Pipeline Safety Regulations, Title 49, Code of Federal Regulations. The items inspected and the probable violations are:

1. **§195.402 Procedural manual for operations, maintenance, and emergencies.**
   (a) General. Each operator shall prepare and follow for each pipeline system a manual of written procedures for conducting normal operations and maintenance activities and handling abnormal operations and emergencies. This manual shall be reviewed at intervals not exceeding 15 months, but at least once each calendar year, and appropriate changes made as necessary to insure that the manual is effective. This manual shall be prepared before initial operations of a pipeline system commence, and appropriate parts shall be kept at locations where operations and maintenance activities are conducted.

HELCO failed to review all of its procedures for conducting normal operations and maintenance (O&M) activities and handling abnormal operations and emergencies once each year not to exceed 15 months. HELCO could not demonstrate that it conducted the required review of all p procedures contained within its O&M manual in 2009 and 2010. HELCO's records of procedure reviews for 2009 and 2010 revealed that not all O&M procedures had been reviewed at the required interval. An operator is required to review all of its procedures for conducting normal operations and maintenance activities and handling abnormal operations and emergencies once each year not to exceed 15 months.

2. §195.402 Procedural manual for operations, maintenance, and emergencies
(c) Maintenance and normal operations. The manual required by paragraph (a) of this section must include procedures for the following to provide safety during maintenance and normal operations:
(13) Periodically reviewing the work done by operator to determine the effectiveness of the procedures used in normal operation and maintenance and taking corrective action where deficiencies are found.

HELCO failed to periodically review the work done by its employees and contractors to determine the effectiveness of procedures used in normal operation and maintenance. A review of HELCO procedures and records revealed HELCO assumed annual personnel performance reviews met the requirements of §195.402(c)(13). PHMSA's assessment of these annual performance reviews is that they did not contain reviews of work completed to determine the effectiveness of the procedures used in normal operation and maintenance. An operator is required to periodically review the work done by its employees and contractors to determine the effectiveness of the procedures used in normal operation and maintenance.

3. §195.404 Maps and Records
(a) Each operator shall maintain current maps and records of its pipeline systems that include at least the following information:
(2) All crossings of public roads, railroads, rivers, buried utilities, and foreign pipelines.

HELCO failed to maintain current or "up to date" maps of their Hilo pipeline system, specifically with regards to mapping the structures detailed in §195.404(a)(2). A review of HELCO's Hilo pipeline map revealed that this map only showed public roads and did not show where the HELCO Hilo pipeline is crossed by buried utilities and foreign pipelines. Many if not all of the utility and pipeline crossing have existed for years. An operator is required to maintain current maps and records of its pipeline system that show the location of all public roads, railroads, rivers, buried utilities, and foreign pipelines.

4. **§195.412 Inspection of rights-of-way and crossings under navigable waters.**
   (a) Each operator shall, at intervals not exceeding 3 weeks, but at least 26 times each calendar year, inspect the surface conditions on or adjacent to each pipeline right-of-way. Methods of inspection include walking, driving, flying or other appropriate means of traversing the right-of-way.

HELCO failed to inspect the surface conditions on or adjacent to that portion of their Hilo pipeline right-of-way (ROW) that crosses the golf course along Banyan Way. HELCO did perform inspections of all other portions of the ROW from adjacent roadways. But the approximately 1550 feet of pipeline that traverses the golf course has no adjacent roadway to inspect the ROW from, and some locations are concealed by trees. An operator is required to inspect all of its ROWs once each calendar year not to exceed 15 months by walking, driving, flying or other appropriate means of traversing the ROW.

5. **§195.420 Valve maintenance.**
   (b) Each operator shall, at intervals not exceeding 7 1/2 months, but at least twice each calendar year, inspect each mainline valve to determine that it is functioning properly.

Since 2003, HELCO has failed to maintain or inspect the mainline block valves on their Hilo pipeline twice each calendar year not to exceed 7 ½ months. HELCO had no records of the maintenance or inspection for their four (4) mainline valves. Though HELCO's "Line Patrol and Valve/Vault Inspection Summary " form was intended to show that these valves had been tested and inspected, HELCO informed PHMSA they had stopped making records of valve inspection, testing, and maintenance around 2003. This is not considered merely a record-keeping issue, since HELCO personnel stated that while each valve is operated throughout each week, they have no dedicated inspection or maintenance activities of the valves. An operator is required to inspect each of their mainline valves to ensure it is functioning properly twice each calendar year not to exceed 7 ½ months.

6. **§195.432 Inspection of in-service breakout tanks.**
   (b) Each operator must inspect the physical integrity of in-service atmospheric and low-pressure steel aboveground breakout tanks according to API Standard 653 (incorporated by reference, see § 195.3). However, if structural conditions prevent access to the tank bottom, the bottom integrity may be assessed according to a plan included in the operations and maintenance manual under § 195.402(c)(3).

HELCO failed to inspect the physical integrity of its Tank 5A breakout tank in accordance with API Standard 653. The June 6, 2007 internal inspection report of the Tank 5A revealed that this inspection was performed by an inspector who was not a certified API Inspector. Following this inspection in June 2011, HELCO performed an API Standard 653 out of service or internal inspection of Tank 5A using a certified API 653 inspector. In July 2011, HELCO completed all repairs resulting from the June inspection. An operator is required to inspect the physical integrity of in-service atmospheric steel aboveground breakout tanks according to API Standard 653. API Standard 653 requires that these inspections be performed by a certified API Inspector.

7. §195.555 What are the qualifications for supervisors?

You must require and verify that supervisors maintain a thorough knowledge of that portion of the corrosion control procedures established under Sec. 195.402(c)(3) for which they are responsible for insuring compliance.

HELCO failed to require and verify that supervisors maintain a thorough knowledge of that portion of the corrosion control procedures established under Sec. 195.402(c)(3) for which they are responsible for insuring compliance. HELCO does not have a qualified cathodic specialist on staff; instead they rely on contractors to perform CP services. However, it is HELCO and not its contractors who are responsible for ensuring compliance. HELCO informed PHMSA that they have begun using HECO, their sister company, for NACE qualified personnel to review the cathodic protection work performed on the Hilo pipeline. They also stated that they plan on evaluating whether to create a NACE Qualified CP staff position or contracting out to a 3rd party to act as the cathodic protect supervisor. An operator must require and verify that supervisors maintain a thorough knowledge of that portion of the corrosion control procedures established under Sec. 195.402(c)(3) for which they are responsible for insuring compliance.

8. §195.573 What must I do to monitor external corrosion control?

(c) Rectifiers and other devices. You must electrically check for proper performance each device in the first column at the frequency stated in the second column.

Device	Check frequency
Rectifier..... Reverse current switch Diode Interference bond whose failure would jeopardize structural protection	**At least six times each calendar year, but with intervals not exceeding 2 ½ months**
Other interference bond	**At least once each calendar year, but with intervals not exceeding 15 months.**

HELCO failed to electrically check its two Hilo pipeline foreign current drains -- interference bonds whose failure would jeopardize structural protection -- at the Hill Plant and the Shipman Plan, at least six times each calendar year with intervals not exceeding 2 ½ months. Though HELCO had no record of electrical checks, they reported that each of these current tests was draining up to 10 amps of foreign current from the Hilo pipeline. These types of current drains remove interference current safely from a pipeline and therefore are considered interference bonds whose failure would jeopardize the Hilo pipeline's structural protection. An operator must electrically check for proper performance of its interference bonds 6 times per year not to exceed 2 ½ months.

9. §195.577 What must I do to alleviate interference currents?

(a) For pipelines exposed to stray currents, you must have a program to identify, test for, and minimize the detrimental effects of such currents.

HELCO failed to have a program to identify, test for, and minimize the detrimental effects of stray currents on their Hilo pipeline. HELCO did not conduct a study to determine if stray current had been the cause of corrosion where two foreign pipelines cross over the Hilo pipeline. Additionally, if stray currents were the cause of the corrosion, HELCO has not taken action to minimize the effects of such currents. HELCO performed a static "ON/OFF" Close Interval Survey(CIS) in 2006 and again in 2010. These tests revealed locations of both elevated and depressed static and polarized pipe-to- soil potential levels. These high and low levels could indicate interference that could be detrimental to the integrity of the pipeline.

Also in 2009, HELCO discovered three (3) corrosion pits on their Hilo pipeline with depths ranging from 53% to 80% of the pipe wall thickness. One of these pits was at a location where two foreign pipelines cross over the Hilo pipeline. Both high and low pipe-to-soil cathodic protection levels, as well as documented corrosion where a foreign pipeline crosses an operators system, indicate that there may be stray currents harming the operator's pipeline system. An operator is required to identify areas of possible stray current and then test for, and minimize the detrimental effects of those currents if found.

Warning Items

With respect to items 1, 2, 4, 6, and 7 we have reviewed the circumstances and supporting documents involved in this case and have decided not to conduct additional enforcement action or penalty assessment proceedings at this time. We advise you to promptly correct these items. Be advised that failure to do so may result in HELCO being subject to additional enforcement action.

Proposed Compliance Order

With respect to items 3, 5, 8, and 9 pursuant to 49 United States Code § 60118, the Pipeline and Hazardous Materials Safety Administration proposes to issue a Compliance Order to HELCO. Please refer to the *Proposed Compliance Order*, which is enclosed and made a part of this Notice.

Response to this Notice

Enclosed as part of this Notice is a document entitled *Response Options for Pipeline Operators in Compliance Proceedings*. Please refer to this document and note the response options. Be advised that all material you submit in response to this enforcement action is subject to being made publicly available. If you believe that any portion of your responsive material qualifies for confidential treatment under 5 U.S.C. 552(b), along with the complete original document you must provide a second copy of the document with the portions you believe qualify for confidential treatment redacted and an explanation of why you believe the redacted information qualifies for confidential treatment under 5 U.S.C. 552(b). If you do not respond within 30 days of receipt of this Notice, this constitutes a waiver of your right to contest the allegations in this Notice and authorizes the Associate Administrator for Pipeline Safety to find facts as alleged in this Notice without further notice to you and to issue a Final Order.

In your correspondence on this matter, please refer to **CPF 5-2012-6011** and for each document you submit, please provide a copy in electronic format whenever possible.

Sincerely,

Chris Hoidal
Director, Western Region
Pipeline and Hazardous Materials Safety Administration

cc: PHP-60 Compliance Registry
PHP-500 G. Davis (#133321)

Enclosures: *Proposed Compliance Order*
Response Options for Pipeline Operators in Compliance Proceedings

PROPOSED COMPLIANCE ORDER

Pursuant to 49 United States Code § 60118, the Pipeline and Hazardous Materials Safety Administration (PHMSA) proposes to issue to Hawaii Electric Light Company a Compliance Order incorporating the following remedial requirements to ensure the compliance of HELCO with the pipeline safety regulations:

1. In regard to Item Number 3 of the Notice pertaining to HELCO's systems maps not showing locations of buried utilities and foreign pipeline crossings, HELCO must update their system maps to include the crossing locations of not only all public roads, railroads, and rivers but also all crossings of buried utilities and foreign pipelines.

2. In regard to Item Number 5 of the Notice pertaining to HELCO not inspecting their mainline valves on their Hilo pipeline twice each calendar year not to exceed 7 ½ months, HELCO must develop a program to ensure that its mainline valves are inspected and maintained per valve manufacturer guidance at the required interval, and to ensure the results and recommendations of those inspections are documented.

3. In regard to Item Number 8 of the Notice pertaining to HELCO not electrically checking current drains on their Hilo pipeline, HELCO must develop a program to ensure that all of its Hilo pipeline current drains are electrically checked at an interval of 6 times per year not to exceed 2 ½ months and to ensure the result and recommendations of those electrical checks are documented.

4. In regard to Item Number 9 of the Notice pertaining to HELCO not identifying, testing for, and minimize the detrimental effects of interference currents on their Hilo pipeline , HELCO must develop a program to identify potential areas of interference to the Hilo pipelines cathodic protection system and to insure that these areas are tested for interference currents and if any found these currents detrimental effects are minimized.

5. In regard to all of the above Compliance Order items HELCO must provide documentation showing compliance with those items.

6. HELCO has 60 days after receipt of the Final Order to complete the above Compliance Order items.

7. It is requested (not mandated) that HELCO maintain documentation of the safety improvement costs associated with fulfilling this Compliance Order and submit the total to Chris Hoidal, Director, Western Region, Pipeline and Hazardous Materials Safety Administration. It is requested that these costs be reported in two categories: 1) total cost associated with preparation/revision of plans, procedures, studies and analyses, and 2) total cost associated with replacements, additions and other changes to pipeline infrastructure.