



U.S. Department
of Transportation

**Pipeline and
Hazardous Materials Safety
Administration**

233 Peachtree Street Ste. 600
Atlanta, GA 30303

WARNING LETTER

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

April 6, 2011

Mr. Eugene Bissell
President & CEO
Amerigas Propane LP
P.O.Box: 965
Valley Forge, PA 19482-0965

CPF 2-2011-0004W

Dear Mr. Bissell:

From February 28 to March 2, 2011, representatives of the Pipeline and Hazardous Materials Safety Administration (PHMSA) inspected the procedures, records, and facilities of four Amerigas Propane (Amerigas) liquefied petroleum gas (LPG) pipeline systems in Jacksonville, Florida, pursuant to Chapter 601 of 49 United States Code. The Amerigas LPG systems inspected served the Arlington 7, Arlington 610, San Jose, and San Mateo sub-divisions.

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

1. **§192.465 External corrosion control: Monitoring.**
 - (b) **Each cathodic protection rectifier or other impressed current power source must be inspected six times each calendar year, but with intervals not exceeding 2 1/2 months, to insure that it is operating.**
 - ... (d) **Each operator shall take prompt remedial action to correct any deficiencies indicated by the monitoring.**

While Amerigas appears to have read its rectifiers on the Arlington 7, Arlington 610, San Jose, and San Mateo sub-divisions systems every month in 2011, Amerigas had not initiated any prompt remedial action to correct the deficiency found with the San Mateo system rectifier during the monitoring in January and February in 2011.

The operator's records show 0.001 Amp current output on its San Mateo system rectifier on January 26, 2011, and again on February 14, 2011; an indication that the rectifier was not functioning properly. The PHMSA field inspection on March 1, 2011, found a zero current output on the same San Mateo system rectifier, confirming that the rectifier was not operating properly. Yet, Amerigas had not initiated a prompt remedial action to correct the deficiency.

2. **§192.465 External corrosion control: Monitoring.**

(d) Each operator shall take prompt remedial action to correct any deficiencies indicated by the monitoring.

Amerigas did not take prompt remedial action to correct deficiencies, i.e. unsatisfactory levels of cathodic protection indicated by low¹ pipe-to-soil (p/s) readings found during cathodic protection surveys it conducted in 2008, 2009, and 2010.

The operator did not correct the following deficiencies indicated by p/s monitoring:

Arlington 610 System

2534 Lansdown Drive: - 710 *mV* (11/18/08); - 680 *mV* (11/23/09)
7335 Merrill Road: - 610 *mV* (11/10/08); -500 *mV* (11/29/10)
2472 Easttrill Drive: - 420 *mV* (11/23/2009)
2481 Easttrill Drive: - 540 *mV* (11/29/2010)
2658 Woolery Drive: - 630*mV* (11/23/2009); - 680 *mV* (11/29/2010)

In addition, p/s tests at selected test stations conducted on the Arlington 610 system during the PHMSA inspection on March 1, 2011, revealed low p/s readings as follows:

2490 Woolery Drive: - 318 *mV*; Woolery creek crossing: - 710 *mV*

San Jose System

4462 Naranja Drive: - 480 *mV* (11/2010)
4332 Naranja Drive: - 690 *mV* (11/2010)
4015 Habana Street: - 840 *mV* (11/2010)
3977 Habana Street: - 460 *mV* (11/2009)
8137 Fresca Street: - 610 *mV* (11/2009)
8042 Naranja Drive: - 580 *mV* (11/2009)
8058 Argentine Drive: - 690 *mV* (10/26/2009); - 670 *mV* (2/2/2011)

In addition, p/s tests at selected test stations conducted on the San Jose system during the PHMSA inspection on March 1, 2011, revealed low p/s readings as follows:

7854 Prayer Drive West: - 500 *mV*
7808 Prayer Drive West: - 500 *mV*
4462 Naranja Drive: - 780 *mV*

¹ The criteria for cathodic protection are contained in 49 CFR Part 192, Appendix D. The criteria being referenced in this letter is negative (cathodic) voltage of at least 850*mV* with reference to a saturated copper-copper sulfate half cell. Accordingly, a "low" p/s reading is a reading less negative than 850*mV*.

San Mateo System

266 Claudia Drive	- 840 <i>mV</i> (12/10)
261 Claudia Drive:	- 750 <i>mV</i> (12/10)
11239 Inez Drive:	- 510 <i>mV</i> (10/09)
255 Balsden Road:	- 500 <i>mV</i> (10/09)
11307 Renee Drive:	- 530 <i>mV</i> (10/09)
11536 Princess Lane:	- 440 <i>mV</i> (10/09)

In addition, p/s tests at selected test stations conducted on the San Mateo system during the PHMSA inspection on March 1, 2011, revealed low p/s readings as follows:

11501 Inez Drive:	- 482 <i>mV</i>
11320 Renee Drive:	- 502 <i>mV</i>
266 Claudia Drive:	- 780 <i>mV</i>

Arlington 7 System

3022 Red Oak Drive:	- 750 <i>mV</i> (11/10/2009); - 570 <i>mV</i> (2/11/2010)
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In addition, p/s tests at selected test stations conducted on the Arlington 7 system during the PHMSA inspection on March 1, 2011, revealed low p/s readings as follows:

3022 Red Oak Drive:	- 438 <i>mV</i>
Test station outside the fenced tank farm:	- 630 <i>mV</i>

3. **§192.467 External corrosion control: Electrical isolation.**
(a) Each buried or submerged pipeline must be electrically isolated from other underground metallic structures, unless the pipeline and the other structures are electrically interconnected and cathodically protected as a single unit.
... (d) Inspection and electrical tests must be made to assure that electrical isolation is adequate.

Amerigas did not inspect or conduct electrical tests to assure that electrical isolation was adequate for its 1¼-inch steel pipe inside a 2-inch casing at the Woolery Creek Crossing on the Arlington 610 system. During the PHMSA field inspection on March 1, 2011, a low pipe-to-soil potential of - 770 *mV* was measured on the pipe and a casing-to-soil potential of - 710 *mV* was measured on the casing. Cathodic protection readings within 100 *mV* on a casing and carrier pipe could indicate a possible electrical short between the two pipes. Yet, Amerigas did not provide any records to demonstrate that it had inspected or electrically tested for adequate electrical isolation between the pipe and the casing at this location.

4. **§192.481 Atmospheric corrosion control: Monitoring.**
(a) Each operator must inspect each pipeline or portion of pipeline that is exposed to the atmosphere for evidence of atmospheric corrosion, as follows:
If the pipeline is located: Onshore.... Then the frequency of inspection is:
At least once every 3 calendar years, but with intervals not exceeding 39 months.

Amerigas did not inspect each pipeline or portion of pipeline that is exposed to the atmosphere for evidence of atmospheric corrosion within the prescribed time intervals. The atmospheric corrosion monitoring on the Arlington 610 system was conducted in August 2002 and November 2008, which exceeds the three calendar year time limit.

5. §192.491 Corrosion control records.

(a) Each operator shall maintain records or maps to show the location of cathodically protected piping, cathodic protection facilities, galvanic anodes, and neighboring structures bonded to the cathodic protection system. Records or maps showing a stated number of anodes, installed in a stated manner or spacing, need not show specific distances to each buried anode.

(b) Each record or map required by paragraph (a) of this section must be retained for as long as the pipeline remains in service.

(c) Each operator shall maintain a record of each test, survey, or inspection required by this subpart in sufficient detail to demonstrate the adequacy of corrosion control measures or that a corrosive condition does not exist. These records must be retained for at least 5 years, except that records related to §§192.465(a) and (e) and 192.475(b) must be retained for as long as the pipeline remains in service.

Amerigas did not have a revised and updated system map showing the location of galvanic anodes, rectifiers and cathodically protected piping.

6. §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. This manual must be reviewed and updated by the operator at intervals not exceeding 15 months, but at least one 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.

Amerigas did not properly prepare and follow a manual of written procedures for conducting operations and maintenance activities and for emergency response. The operator did not have written procedures to address the following:

- A time frame for prompt remedial actions in the case of unsatisfactory levels of cathodic protection,
- Internal corrosion,
- Alternating current (A/C) interference,
- Stray currents,
- Critical bonds and interference bonds; and
- Shorted casings.

Under 49 United States Code, § 60122, you are subject to a civil penalty not to exceed \$100,000 for each violation for each day the violation persists up to a maximum of

\$1,000,000 for any related series of violations. 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 correct the items identified in this letter. Failure to do so will result in Amerigas Propane LP being subject to additional enforcement action.

No reply to this letter is required. If you choose to reply, in your correspondence please refer to **CPF 2-2011-0004W**. 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).

Sincerely,



Wayne T. Lemoie
Director, Office of Pipeline Safety
PHMSA Southern Region

cc: Michael Johnson
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