



U.S. Department
of Transportation
**Pipeline and Hazardous
Materials Safety
Administration**

12300 W. Dakota Ave., Suite 110
Lakewood, CO 80228

**NOTICE OF PROBABLE VIOLATION
PROPOSED CIVIL PENALTY
and
PROPOSED COMPLIANCE ORDER**

VIA ELECTRONIC MAIL TO: kelleherk@ugicorp.com

June 22, 2023

Mr. Kevin Kelleher
Vice President, Operations
AmeriGas Propane LP
460 N. Gulph Rd.
King of Prussia, PA 19406

CPF 5-2023-029-NOPV

Dear Mr. Kelleher:

From November 7 through 17, 2022 of the on-site inspection, a representative of the Pipeline and Hazardous Materials Safety Administration (PHMSA), Office of Pipeline Safety (OPS), pursuant to Chapter 601 of 49 United States Code (U.S.C.), inspected your liquified petroleum gas distribution systems in Maui, Oahu, and the Island of Hawaii, Hawaii.

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

1. § 192.195 Protection against accidental overpressuring.

(a) General requirements. Except as provided in § 192.197, each pipeline that is connected to a gas source so that the maximum allowable operating pressure could be exceeded as the result of pressure control failure or of some other type of failure, must have pressure relieving or pressure limiting devices that meet the requirements of §§ 192.199 and 192.201.

AmeriGas failed to protect a customer gas meter on the “AAAAA Rent-A-Space” (Maui) system from over-pressuring. Photos taken during the November 2022 on-site inspection show that one of the three customer service meters (specifically the meter labeled “IA Ohana Taco”) lacked adequate pressure limiting devices to regulate the pressure to less than the meter’s maximum allowable operating pressure (MAOP). The customer meter was operated at the pipeline pressure (approximately 8 psi at the time of inspection), which is greater than the 5 psi MAOP that was clearly indicated on the meter’s nameplate.

2. § 192.355 Customer meters and regulators: Protection from damage.

(a)

(b) Service regulator vents and relief vents. Service regulator vents and relief vents must terminate outdoors, and the outdoor terminal must –

(1)

(2) Be located at a place where gas from the vent can escape freely into the atmosphere and away from any opening into the building;

AmeriGas failed to install service regulator vents at locations where gas from the vent can escape freely into the atmosphere. More specifically, NFPA 58 Section 6.7.4.6 (incorporated in § 192.11(b)) requires the discharge of a relief device (such as a service regulator vent) to “be located not less than 5 ft (1.5 m) in any direction away from any source of ignition, openings into direct-vent (sealed combustion system) appliances, or mechanical ventilation air intakes.” Photos taken during the November 2022 site visit show a self-relieving service regulator located within 5 feet of the air intake of an emergency generator at the “Shops of Waileau” system.

3. § 192.357 Customer meters and regulators: Installation.

(a) Each meter and each regulator must be installed so as to minimize anticipated stresses upon the connecting piping and the meter.

AmeriGas failed to adequately support service meters in a manner that minimized stresses on the service line piping. During the November 2022 on-site inspection, PHMSA observed and photographed meters installed in a way that put undue stress on the connected piping. One service meter at the "Shops of Wailea" (the emergency generator meter) was supported largely by the service line riser pipe and was only partially supported by a concrete pad. On the "Pearl Kai" system, one meter (the "Club Chance" meter) was supported directly by the service line.

This violation is a repeat of violations found in CPF # 5-2019-0016, Item # 1.

4. § 192.453 General.

The corrosion control procedures required by § 192.605(b)(2), including those for the design, installation, operation, and maintenance of cathodic protection systems, must be carried out by, or under the direction of, a person qualified in pipeline corrosion control methods.

AmeriGas failed to ensure that the operation and maintenance of their cathodic protection systems were carried out by a person qualified in corrosion control methods. During the November 2022 site visits, PHMSA asked operator personnel (specifically the operator's technicians of record of cathodic protection monitoring for Maui and Oahu) to describe and demonstrate how they collect pipe-to-soil readings to evaluate the level of cathodic protection. Based on the interviews and demonstrations, it was evident that AmeriGas failed to use adequately trained and qualified personnel to collect pipe-to-soil measurements.¹

The operator's technicians on both Oahu and Maui were unaware of how to maintain the equipment used to collect pipe-to-soil potentials. While the individuals each had two copper-copper sulfate half-cells used to measure cathodic protection level, those individuals were not aware that one half-cell is to be kept out of the field and used as a calibration standard according to the manufacturer's literature and widely accepted industry practices. Both cells had been used in the field and could not be used as a calibration standard. The individuals interviewed stated that they believed the "field" half-cells had never been checked against an uncontaminated "lab" half-cell.

In addition, the technician on Oahu collected pipe-to-soil measurements by placing the copper-copper sulfate half cells in soils immediately above the magnesium spike anodes used to provide cathodic protection. This practice results in inaccurate pipe-to-soil measurement due to the proximity of the anode. The operator was not trained to take pipe-to-soil measurements at locations that would produce accurate potentials.

¹ See 49 CFR 192.463(a) and Appendix D for the specific requirements for pipe-to-soil measurements.

5. § 192.463 External corrosion control: Cathodic protection.

(a) Each cathodic protection system required by this subpart must provide a level of cathodic protection that complies with one or more of the applicable criteria contained in appendix D of this part. If none of these criteria is applicable, the cathodic protection system must provide a level of cathodic protection at least equal to that provided by compliance with one or more of these criteria.

AmeriGas failed to provide a level of cathodic protection that complied with one or more of the applicable criteria contained in Appendix D of part 192 for the "Pearl Kai" (Oahu) and "AAAAA Rent-A-Space " (Maui) systems. During the November 2022 on-site inspections, PHMSA observed and photographed the operator measuring pipe-to-soil potentials less negative than -850mV for both systems. The systems use direct-bonded anodes at the tank risers for cathodic protection. For the "Pearl Kai" system, the operator measured potentials at a riser and found potentials of approximately -418mV. Records show that this riser was electrically isolated from the anode at the tank riser, and the measurements of cathodic protection potentials show that it was not receiving cathodic protection from the anode at the tank riser. For the "AAAAA Rent-A-Space" system, the operator measured potentials of approximately -600mV. The measurement was collected directly over the buried pipe at a location approximately three to four feet from the anode, which is mechanically bonded to the pipe riser. Although previously recorded cathodic protection measurements at this site were more negative than -850mV, the operator's practice of using direct-bonded anodes and measuring the potentials in soils near and directly above the anodes resulted in incorrect measurements. The measured potentials appeared more negative than they would be using correct measurement practices. To ensure accurate measurements are obtained, the half-cell should be placed on soil directly over the pipeline at a location remote from the galvanic anode.

6. § 192.465 External corrosion control: Monitoring.

(a) Each pipeline that is under cathodic protection must be tested at least once each calendar year, but with intervals not exceeding 15 months, to determine whether the cathodic protection meets the requirements of § 192.463. However, if tests at those intervals are impractical for separately protected short sections of mains or transmission lines, not in excess of 100 feet (30 meters), or separately protected service lines, these pipelines may be surveyed on a sampling basis. At least 10 percent of these protected structures, distributed over the entire system must be surveyed each calendar year, with a different 10 percent checked each subsequent year, so that the entire system is tested in each 10-year period.

AmeriGas failed to test each pipeline under cathodic protection each calendar year at intervals not to exceed 15 months for two of their systems:

- Coconut Grove (Maui) - Cathodic protection monitoring worksheets are dated 1/12/2022, 1/18/2020, and 1/19/2019. No cathodic protection testing was completed in 2021.
- Wapahu Shopping Center (Oahu) - The cathodic protection potentials at the service

line risers had not been measured since 2018. Cathodic protection test records in 2018 showed that 2 service line risers and 1 tank riser were cathodically protected. Since then, the operator has only measured potentials on the tank riser, which is electrically isolated from the service risers by a polyethylene main.

Both systems were not systems for which annual testing would be impractical. In addition, the operator’s procedures (“Operations and Maintenance Manual -Corrosion Control”) required each system to be tested on an annual basis at intervals not to exceed 15 months, and they did not make claim to the exceptions to the annual testing requirements allowed for certain pipelines.

7. § 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.

The "Pearl Kai" system lacked adequate isolation from its buried metallic support structures. The pipeline's riser is not an "anodeless" type riser; therefore must be cathodically protected, and to facilitate the application of cathodic protection, it must be isolated from other buried metallic structures. During the November 14, 2022, on-site inspection, the pipe was visibly shorted to two “uni-strut" type pipe supports that were in direct contact with the soil. In addition, the pipe was shorted to an adjacent bridge girder (the isolation union used between the buried segment from the segment supported by the bridge girder was tested for isolation during the November 14, 2022 inspection and was not isolated (potentials on either side were substantially the same at approximately -375 millivolts).

8. § 192.481 Atmospheric corrosion control: Monitoring.

(a) Each operator must inspect and evaluate each pipeline or portion of the pipeline that is exposed to the atmosphere for evidence of atmospheric corrosion, as follows:

Pipeline type:	Then the frequency of inspection is:
(1) Onshore other than a Service Line	At least once every 3 calendar years, but with intervals not exceeding 39 months.
(2) Onshore Service Line	At least once every 5 calendar years, but with intervals not exceeding 63 months, except as provided in paragraph (d) of this section.
(3) Offshore	At least once each calendar year, but with intervals not exceeding 15 months.

AmeriGas failed complete atmospheric corrosion inspections at the required intervals for two of their systems:

- Coconut Grove (Maui) - The most recent documented atmospheric corrosion inspection

was on 1/8/2018. There were none completed or documented since that time which exceeded the 39-month interval that is required for portions of the system other than service lines.

- Wahiawa Town Center (Oahu) - There were records for atmospheric corrosion inspections on 1/8/2014 and 7/28/2020, which exceeded 39 months.

9. § 192.517 Records.

(a)

(b) Each operator must maintain a record of each test required by §§ 192.509, 192.511, and 192.513 for at least 5 years.

AmeriGas failed to complete their pressure testing worksheets with relevant details. The “Pipeline Test Report” pressure test record for several systems (for example, the Residences at Laule’a, Henry Street Landing, and Puna Kai Tank A) lacked relevant information such as test pressure, name of individual performing test, and date.

10. § 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 (MAOP) determined under paragraph (c), (d), or (e) 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. However, for steel pipe in pipelines being converted under § 192.14 or uprated under subpart K of this part, if any variable necessary to determine the design pressure under the design formula (§ 192.105) is unknown, one of the following pressures is to be used as design pressure:

AmeriGas failed to operate several systems at pressures less than the pipeline’s MAOP. The MAOP is limited by the weakest element of this system, and Subpart D prohibits the use of pipeline components at pressures greater than the pressure rating established by the manufacturer.² According to operator records, the systems' established MAOPs are 10 psi, which is the maximum allowable inlet pressure of the second-stage service regulators (Fisher R622-DFE with a labeled maximum inlet pressure of 10 psi). During the November 2022 on-site inspection, PHMSA observed and documented clock gauges showing the operating pressures of several systems operating at pressures greater than 10 psi:

- Shops of Waileau (Maui) - 14 psi
- Coconut Grove (Maui) - 12 psi
- Pukalani Terrance (Maui) 13 psi
- Ewa Point Marketplace (Oahu) - 13 psi
- Henry Street Landing (Hawaii) - 13 psi

This violation is a repeat of violations found in CPF # 2-2018-0002, Item # 6

² See § 192.143(a)

11. § 192.721 Distribution systems: Patrolling.

(a)

(b) Mains in places or on structures where anticipated physical movement or external loading could cause failure or leakage must be patrolled –

(1) In business districts, at intervals not exceeding 4 ½ months, but at least four times each calendar year;

AmeriGas failed to patrol their systems within business districts the required number of times per year and/or within the required time intervals:

- Maui Market (Maui) - 3 patrols were recorded in 2020.
- Manini Holdings/Brew Lot 12 (Hawaii) - 2 patrols were recorded in 2022, 3 patrols were recorded in 2021, none in 2020, and none in 2019. The system was commissioned in 2018.
- Henry St. Landing (Hawaii) - 2 patrols were recorded in 2022, 3 patrols were recorded in 2021, 3 patrols were recorded in 2020, 1 patrol was recorded in 2019, and 2 patrols were recorded in 2018.
- Residences of Laulea (Hawaii) - One patrol was completed in 2018, and there were no other records documenting any patrols at this location since.

12. § 192.723 Distribution systems: Leakage surveys.

(a)

(b) The type and scope of the leakage control program must be determined by the nature of the operations and the local conditions, but it must meet the following minimum requirements:

(1) A leakage survey with leak detector equipment must be conducted in business districts, including tests of the atmosphere in gas, electric, telephone, sewer, and water system manholes, at cracks in pavement and sidewalks, and at other locations providing an opportunity for finding gas leaks, at intervals not exceeding 15 months, but at least once each calendar year.

AmeriGas failed to conduct leak surveys of their systems in business districts at intervals not exceeding 15 months but at least once each calendar year:

- Shops at Wailea (Maui) - the operator did not conduct a leak survey in 2020. Surveys conducted 9/21/2022, 10/13/2021, 8/12/2019.
- Tosei (Maui) - the operator did not conduct a leak survey in 2020. Surveys conducted 11/5/2021, 10/15/2019, 12/19/2018.
- Shops at Mauna Lani (Hawaii) - the operator did not conduct a leak survey in 2019, 2020, or 2021. Surveys conducted 10/25/22 and 8/30/18.

This violation is a repeat of violations found in CPF # 5-2019-0016, Item # 6

13. § 192.739 Pressure limiting and regulating stations: Inspection and testing.

(a) 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 –

AmeriGas failed to inspect or adequately document the inspection of the regulators every year at intervals not to exceed 15 months:

- "Puna Kai" (Hawaii) system – the operator inspected the regulators on 8/26/19 and 8/25/22 but did not inspect regulators in 2020 or 2021. The system was installed 8/22/19.
- "Residences of Laulea" (Hawaii) - the operator inspected the regulators on 8/26/22 and 7/25/19 but did not inspect regulators in 2020 or 2021.

14. § 192.739 Pressure limiting and regulating stations: Inspection and testing.

(a) 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)

(2) Adequate from the standpoint of capacity and reliability of operation for the service in which it is employed;

AmeriGas failed to correct deficiencies identified during the inspection of the regulating equipment at "Shops at Wailua" system. The operator personnel who conducted the regulator inspection of that system recognized it was inadequate from the standpoint of capacity and reliability for the service in which it is employed and, on March 19, 2019, generated a Sales and Service Order stating that AmeriGas "need to install a monitoring regulator." According to statements made to PHMSA, the operator personnel was later told by superiors in AmeriGas that an additional monitoring regulator (i.e., pressure limiting device) was not needed.

Photos taken during the November 12, 2022 inspection showed that the "Shops at Wailua" system had 2 parallel Fisher 627-7710 regulators (one per tank), and the associated regulating inspection worksheet showed that these regulators reduce the system's pressure from approximately 118 psi to 10 psi (the reported MAOP of the pipeline) without overpressure protection in the event of a regulator failure. Literature from the regulator's vendors and statements made by the regulator's vendor clearly demonstrate that a Fisher 627-7710 regulator lacks an internal relief valve and that additional overpressure protection (e.g., relief or limiting equipment) is needed. Therefore, AmeriGas was aware as early as March 19, 2019, that the regulating equipment as it was configured at the Shops of Wailua system was inadequate but failed to correct it by November 12, 2022.

15. § 192.747 Valve maintenance: Distribution systems.

(a) Each valve, the use of which may be necessary for the safe operation of a distribution system, must be checked and serviced at intervals not exceeding 15 months, but at least once each calendar year.

The operator failed to inspect or record the inspection of valves that might be needed in an emergency annually at intervals not to exceed 15 months. "Key Valve Inspection Report" records documented the following:

- Coconut Grove (Maui)- Worksheets were completed in 2021, 2020, and 2018, but not for 2019.
- Tosei (Maui) - Worksheets were completed in 2021 and 2019 but not for 2020.
- Residences of Laule'a (Hawaii) - Worksheets were completed in 2022 and 2020 but not for 2021.

16. § 192.751 Prevention of accidental ignition.

Each operator shall take steps to minimize the danger of accidental ignition of gas in any structure or area where the presence of gas constitutes a hazard of fire or explosion, including the following:

(a) When a hazardous amount of gas is being vented into open air, each potential source of ignition must be removed from the area and a fire extinguisher must be provided.

AmeriGas failed to minimize the danger of accidental ignition and provide a fire extinguisher while gas was vented into the open air at their "AAAAA Storage" site. During the November 2022 site visit, the operator removed a plug fitting on a first-stage regulator to check the pressure with a clock gauge. The operator accidentally removed the plug fitting from high-pressure (tank pressure) side of the regulator discharging high-pressure propane into the open air. The operator did not have a fire extinguisher present, nor did they take other customary and reasonable steps to minimize the danger of accidental ignition, such as monitoring the atmosphere with a combustible gas meter.

17. § 192.805 Qualification program.

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

(a)

(b) Ensure through evaluation that individuals performing covered tasks are qualified;

AmeriGas failed to ensure that individuals performing tasks had been evaluated and could perform the assigned covered tasks, which is a requirement to be "qualified" under § 192.803. PHMSA observed worksheets where an operator inspected pressure-regulating equipment. When asked for the qualification records for that task, the relevant operator personnel stated that

he was not qualified for the task, and there was nothing on the regulator inspection worksheets suggesting that he worked under the span of control of a qualified individual.

18. § 192.805 Qualification program.

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

(a)

(b) Ensure through evaluation that individuals performing covered tasks are qualified;

AmeriGas’s qualification program failed to ensure that individuals performing tasks were qualified to recognize and react to abnormal operating conditions (AOC), which is a requirement to be “qualified” under § 192.803.

- AmeriGas failed to train and qualify the operator of record for odorant testing for the Maui systems on how to recognize and respond to inadequate levels of odorization which is an AOC relevant to that task. AmeriGas uses Odorometer equipment to measure the concentration of propane-in-air at which the odorant is detectable and records the readily detectable level (RDL) and threshold detectable level (TDL) values on a worksheet. The operator of record for the odorant monitoring task for the Maui systems could not describe what these values meant or what appropriate or actionable values were. Upon reviewing the qualification materials for the operator, PHMSA found no mention of the terms RDL or TDL or what appropriate odorant concentrations or lower explosive limits were. The operator stated that in addition to the qualification materials he provided, he was required to watch a video on the use of the Odorometer equipment, but that the video was generic instructions for the use of the equipment and did not include information on how to interpret the results.
- AmeriGas failed to train and qualify the operator of record for corrosion control practices for their Oahu systems to recognize and test for shorted pipe, an AOC relevant to that task. During the on-site inspection, PHMSA identified a visibly shorted pipe and asked the operator to test the isolation. Although the operator had the equipment to conduct the test, he was not able to perform the task.

Proposed Civil Penalty

Under 49 U.S.C. § 60122 and 49 CFR § 190.223, you are subject to a civil penalty not to exceed \$257,664 per violation per day the violation persists, up to a maximum of \$2,576,627 for a related series of violations. For violation occurring on or after March 21, 2022, and before January 6, 2023, the maximum penalty may not exceed \$239,142 per violation per day the violation persists, up to a maximum of \$2,391,412 for a related series of violations. For violation occurring on or after May 3, 2021, and before March 21, 2022, the maximum penalty may not exceed \$225,134 per violation per day the violation persists, up to a maximum of \$2,251,334 for a related series of violations. For violation occurring on or after January 11, 2021, and before May 3, 2021, the maximum penalty may not exceed \$222,504 per violation per day the violation

persists, up to a maximum of \$2,225,034 for a related series of violations. For violation occurring on or after July 31, 2019, and before January 11, 2021, the maximum penalty may not exceed \$218,647 per violation per day the violation persists, up to a maximum of \$2,186,465 for a related series of violations. For violation occurring on or after November 27, 2018, and before July 31, 2019, the maximum penalty may not exceed \$213,268 per violation per day, with a maximum penalty not to exceed \$2,132,679. For violation occurring on or after November 2, 2015, and before November 27, 2018, the maximum penalty may not exceed \$209,002 per violation per day, with a maximum penalty not to exceed \$2,090,022.

We have reviewed the circumstances and supporting documentation involved for the above probable violation and recommend that you be preliminarily assessed a civil penalty of \$550,100 as follows:

<u>Item number</u>	<u>PENALTY</u>
4	\$75,200
8	\$35,700
10	\$168,600
12	\$83,400
14	\$72,600
15	\$36,100
17	\$39,100
18	\$39,400

Proposed Compliance Order

With respect to items 1, 3, 5, 6, 7, 10, and 14, pursuant to 49 U.S.C. § 60118, the Pipeline and Hazardous Materials Safety Administration proposes to issue a Compliance Order to AmeriGas Propane LP. Please refer to the *Proposed Compliance Order*, which is enclosed and made a part of this Notice.

Warning Items

With respect to items 2, 9, 11, 13, and 16, 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. Failure to do so may result in additional enforcement action.

Response to this Notice

Enclosed as part of this Notice is a document entitled *Response Options for Pipeline Operators in Enforcement Proceedings*. Please refer to this document and note the response options. All material you submit in response to this enforcement action may be 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).

Following your receipt of this Notice, you have 30 days to respond as described in the enclosed *Response Options*. 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. If you are responding to this Notice, we propose that you submit your correspondence to my office within 30 days from receipt of this Notice. The Region Director may extend the period for responding upon a written request timely submitted demonstrating good cause for an extension.

In your correspondence on this matter, please refer to **CPF 5-2023-029-NOPV**, and for each document you submit, please provide a copy in electronic format whenever possible.

Sincerely,

Dustin Hubbard
Director, Western Region, Office of Pipeline Safety
Pipeline and Hazardous Materials Safety Administration

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

cc: PHP-60 Compliance Registry
PHP-500 J. Gano (#22-251181)
David Hedrick, AmeriGas Propane LP (david.hedrick@amerigas.com)

PROPOSED COMPLIANCE ORDER

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

- A. In regard to Item Number 1 of the Notice pertaining to over pressured meter at the “AAAAA Rent-A-Space” system, AmeriGas Propane LP must install a service regulator upstream of the meter and must remove, discard, and replace the over pressured meter within **30** days of receipt of the Final Order. AmeriGas must provide written notice (including photographs) to the Director of the Western Region with 10 business days of completing this task.
- B. In regard to Number 3 of the Notice pertaining to inadequately supported meters, AmeriGas Propane LP must add or modify the supports on the Pearl Kai meter and the Shops of Wailea meter within **30** days of receipt of the Final Order and must provide written notice (including photographs) to the Director of the Western Region within 10 business days of completing this task.
- C. In regard to Item Number 5 of the Notice pertaining to inadequate levels of cathodic protection and Item Number 7 regarding inadequate isolation, AmeriGas Propane LP must:
 - For the Pearl Kai system, replace the inadequately protected and electrically shorted steel risers with anodeless risers.
 - For the Rent-A-Space, the operator must excavate and inspect the inadequately protected piping; and replace the pipe if evidence of corrosion is found. The replacement pipe must be polyethylene with anodeless riser. If no evidence of corrosion is found, AmeriGas may retain the existing steel piping but must install additional anodes to ensure the pipe has adequate cathodic protection.AmeriGas Propane LP must complete the above-listed actions within **30** days of receipt of the Final Order and must provide written notice (including photographs) to the Director of the Western Region within 10 business days of completing this task.
- D. In regard to Item Number 6 of the Notice pertaining to AmeriGas’s failure to monitor cathodic protection, AmeriGas Propane LP must replace the Wapahu Shopping Center steel risers with anodeless risers within **30** days of receipt of the Final Order and must provide written notice (including photographs) to the Director of the Western Region with 10 business days of completing this task.
- E. In regard to Item Number 10 of the Notice pertaining to overpressured liquefied petroleum gas (LPG) systems AmeriGas Propane LP must, for the five LPG systems specifically described in Item 5:
 - Discard and replace all service regulators that have been used at pressures

exceeding their labeled maximum inlet pressure. AmeriGas Propane LP must complete this task within **30** days of receipt of the Final Order and must provide written notice (including photographs) to the Director of the Western Region within 10 business days of completing this task.

- AmeriGas must submit to the Director of the Western Region detailed procedures for re-inspecting and adjusting the regulating equipment. The procedure must be specific to each system's configuration and must be adequate to ensure the systems' MAOP is not exceeded during normal and no-flow (i.e., regulator lock-up conditions). For series regulating setups, the procedure must include provisions to ensure the MAOP cannot be exceeded should the second-stage regulator fail. AmeriGas Propane LP must provide the procedures within **30** days of receipt of the Final Order. Within **30** days from the time AmeriGas receives notice that the Western Region does not object to their procedures, AmeriGas must complete the inspection and adjustment of the subject regulators and must provide written notice (including photographs) to the Director of the Western Region with 10 business days of completing this task.

- F. In regard to Number 14 of the Notice pertaining to the lack of adequate pressure regulating equipment on the "Shops of Wailua" system, AmeriGas Propane LP must install overpressure protective equipment on the system to protect against the failure of the regulators. AmeriGas Propane LP must adjust the regulating equipment in accordance with the written procedures described in Action E described above. AmeriGas Propane LP must complete the installation of the regulating equipment within **30** days of receipt of the Final Order and must provide written notice (including photographs) to the Director of the Western Region with 10 business days of completing this task. AmeriGas must inspect and adjust the regulating equipment in accordance with Action E described above.
- G. It is requested (not mandated) that AmeriGas Propane LP maintain documentation of the safety improvement costs associated with fulfilling this Compliance Order and submit the total to Dustin Hubbard, 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.