



Allan Beshore
Director, Central Region, OPS
Pipeline and Hazardous Materials Safety Administration,

Re: CPF 3-2019-0001
July 10, 2019

Dear Mr. Beshore,
Please review the following responses to the items listed on CPF 3-2019-0001.

1. 192.285 Plastic pipe: Qualifying persons to make joints

No person may make a plastic pipe joint unless that person has been qualified under the applicable joining procedure by:

(c) A person must be re-qualified under an applicable procedure once each calendar year at intervals not exceeding 15 months, or after any production joint is found unacceptable by testing under §192.513.

Ferrellgas did not re-qualify one person in 2015 under the applicable plastic joint procedure once each calendar year at intervals not exceeding 15 months. The individual made pipe joints in 2015, but had not been qualified by making specimen joints for inspection and testing as required by the regulation and their procedures.

Response:

The employee has been retrained in plastic pipe and fitting installation.

2. §192.513 Test requirements for plastic pipelines.

(a) Each segment of a plastic pipeline must be tested in accordance with this section .

(c) The test pressure must be at least 150 percent of the maximum operating pressure or 50 p.s.i. (345 kPa) gage, whichever is greater. However, the maximum test pressure may not be more than three times the pressure determined under

§192.121, at a temperature not less than the pipe temperature during the test.

Ferrellgas did not test its plastic pipelines to at least a pressure of 50 psig. Ferrellgas installed three (3) plastic service lines in 2017 and 2018 which were not pressure tested to at least 50 psig. The service locations, dates and pressures are:



Address	Date	Test Pressure (psig)
7219 W. Courtland Circle, Egg Harbor, WI	5-5-2017	28
7192 Ida Red Rd., Egg Harbor, WI	7-19-2018	24
7300 McIntosh Way, Egg Harbor, WI	8-28-2017	24

Response:

The lines have all been re-tested in accordance with the procedure in the Operations & Maintenance manual. See attached testing results. (Exhibit A) Ferrellgas respectfully asks for the penalty to be rescinded or for a significant reduction in the proposed \$19,600 penalty. Our employees mistakenly tested the lines using the parameters found in NFPA 54 and 58, which is less than the minimum test pressures established in CFR 192. In most other circumstances where these lines had been installed to service a single customer from a stationary ASME tank, the test pressures used would have been perfectly acceptable under the codes that we use for the Safe installation and operation of propane systems.

The new tests show that the lines were safe, and their integrity was never compromised. We ask that you take these factors into consideration when looking at rescinding or a reduction in the proposed penalty.

3. §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. For transmission lines, the manual must also include procedures for handling abnormal operations. This manual must be reviewed and updated by the operator at intervals not exceeding 15 months, but at least once 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.

Ferrellgas did not conduct annual reviews of its written procedures. Ferrellgas personnel informed PHMSA that it had not conducted annual reviews of its written procedures for the last two years.

Response:

There was in fact an annual review conducted. The local employees may not have completely understood what was being asked of them. Please see the attached email that went to all Ferrellgas Operators. (Exhibit B) This is an annual occurrence.



4. §192.605 Procedural manual for operations, maintenance, and emergencies.

(a)....

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 procedures when deficiencies are found.

Ferrellgas did not periodically review the work done by operator personnel to determine the effectiveness and adequacy of the procedures in normal operations and maintenance. Ferrellgas informed PHMSA that these effectiveness reviews had not been conducted for the last two year.

Response:

The local employees will be re-trained on the periodic review to determine the effectiveness and adequacy of procedures. This is covered in our O&M:

“Section 1, Page 2 of the O&M - Responsibility [192.605(b)(8)]

Field Management is responsible for the operation of pipeline systems. This includes ensuring periodic review of work performed by Employees to determine the effectiveness and adequacy of procedures, and advising the Safety Department when deficiencies are found.

Field Management is responsible for contacting the Liberty Safety Department for interpretations or clarification of any regulations or definitions, i.e., whether a system is jurisdictional or if a particular part of a system is a business district or if a new system is acquired.”

5. §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. 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:

Ferrellgas did not determine its maximum allowable operating pressure (MAOP) to be the design pressure of the weakest element of the segment. Ferrellgas stated that its MAOP in each system was 30 psig, but the PHMSA inspector found house service regulators having a maximum inlet pressure limit of 10 psig. This would restrict the MAOP to not be above 10 psig.

Response:

The current MAOP in our O&M Manual is set at 30 psi. This is based on the fact that 30 psi is the limit for propane vapor in poly pipe. The restriction on polyethylene piping reflects its unsuitability where LP-Gas liquid may be present due to reliquefaction. No further MAOP calculations are needed because poly pipe used in the propane industry has a design pressure far above 30 psi.

We recognize that the second stage regulators used in our systems have a maximum inlet pressure of 10 psi indicated on the regulator. Please refer to the attached letter written by the Emerson Product Safety Officer (Exhibit C) as our plea to allow a MAOP higher than 10 psi. We are proposing to modify our O&M Manual to allow for a typical MAOP of 20 psi based on the information in that letter.

As always, our smaller system operators can set their MAOP lower if the system will operate safely at that level.



6. §192.603 General provisions.

(a)

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

§192.605 Procedural manual for operations, maintenance, and emergencies.

(a) . . .

(b) *Maintenance am/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.

§192.741 Pressure limiting and regulating stations: Telemetering or recording gauges.

(a) Each distribution system supplied by more than one district pressure regulating station must be equipped with telemetering or recording pressure gauges to indicate the gas pressure in the district.

Ferrell gas did not keep records of recording pressure gauges for two multiple feed systems. The monthly pressure recording charts for the Horse Shoe Bay distribution system were not kept for August of 2016, October and February of 2017, and June of 2018. The same records for Heritage Lake distribution system were not kept for August and October of 2016, February, April, May, and June of 2017, and March of 2018.

Response:

The pressure recorders are repaired and in operation. Local management has been re-trained on the need for keeping these records on file.

7. §192.743 Pressure limiting and regulating stations: Capacity of relief devices.

(c) Pressure relief devices at pressure limiting stations and pressure regulating stations must have sufficient capacity to protect the facilities to which they are connected. Except as provided in §192.739(b), the capacity must be consistent with the pressure limits of §192.201(a). This capacity must be determined at intervals not exceeding 15 months, but at least once each calendar year, by testing the devices in place or by review and calculations.



- (d) If review and calculations are used to determine if a device has sufficient capacity, the calculated capacity must be compared with the rated or experimentally determined relieving capacity of the device for the conditions under which it operates. After the initial calculations, subsequent calculations need not be made if the annual review documents that parameters have not changed to cause the rated or experimentally determined relieving capacity to be insufficient.

Ferrellgas did not determine pressure relief capacity at intervals not exceeding 15 months, but at least each calendar year, by testing the devices in place or by review and calculations of the capacity of its regulator station relief devices. None of Ferrellgas' nine (9) regulator stations had been tested in place or calculated capacities reviewed to determine if the relieving capacities were sufficient. Ferrellgas had no capacity design sheets for its regulator stations to even review.

Response:

All in-line relief devices will be removed and replaced with worker/monitor regulator stations. This work is currently in progress and will be completed by September 30th, 2019.



8. §192.805 Qualification program.

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

(e)

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

Ferrellgas did not ensure through evaluation that individuals performing covered tasks are qualified. The operator 2015 qualification records for one individual who performed 19 covered tasks had none of the proficiency (performance) evaluations completed, but all the written tests had been completed. The individual performed these tasks multiple times during the period from 2015 to 2018. His records for 2018 for all qualifications were complete. This individual was in charge of qualifying most of the staff.

Response:

This has been completed. The individual in question told us the evaluations had been performed prior to your inspection, but the paperwork had not been completed. We recognize that is a deficiency and the management team has been instructed to rededicate their efforts on recordkeeping.



Thank you,

Rufus Youngblood
Director Safety



Ferrellgas

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Ferrellgas.com

Exhibit A

Pipeline Pressure Test Report

System Name: <u>HSB, Estates</u>	Service Center: <u>Green Bay, WI</u>
System ID Number: <u>1051</u>	Date: <u>6-25-2019</u>

OPERATING COMPANY:

Testing Company: FG Ferrellgas.

This form must be completed for each section of newly installed section of pipe or service line and on each service line that is disconnected from the main for any reason.

Test Data

Type of Pipe: PE

Size of Pipe: 3/4 inches

Length of Line: 50'

Location of Line: From transformer area to house.

Tested with: Nitrogen

Air

Other (specify)

Time Started: 11:15 A.M. P.M.

Time Ended: 1:30 A.M. P.M.

Test Pressure Start: 60 PSIG (50 PSIG minimum for plastic pipelines, 90 PSIG minimum for steel) Refer to "Pressure Testing" in the Pipeline Operations and Maintenance Manual.

Test Pressure Stop: 60 PSIG

Pressure Loss? : Yes No

Reason for Pressure Loss:

Corrective Measures Taken:

Remarks:

Name (Print): Dave Peters

Signature: _____



7300 McIntosh Way.

Pipeline Pressure Test Report

System Name: <u>HSB, Estates</u>	Service Center: <u>Green Bay, WI.</u>
System ID Number: <u>1051</u>	Date: <u>6-26-2019</u>

OPERATING COMPANY:

Testing Company: Ferrellgas.

This form must be completed for each section of newly installed section of pipe or service line and on each service line that is disconnected from the main for any reason.

Test Data

Type of Pipe: PE

Size of Pipe: 3/4 inches

Length of Line: 100'

Location of Line: From transformer area to backside of home.

Tested with: Nitrogen Air Other (specify)

Time Started: 1:30 A.M. P.M. Time Ended: 3:40 A.M. P.M.

Test Pressure Start: 70 PSIG (50 PSIG minimum for plastic pipelines, 90 PSIG minimum for steel) Refer to "Pressure Testing" in the Pipeline Operations and Maintenance Manual.

Test Pressure Stop: 70 PSIG

Pressure Loss? : Yes No

Reason for Pressure Loss:

Corrective Measures Taken:

Remarks:

Name (Print): Dave Peters

Signature: 

7192 Ida Red Rd.

Exhibit B

Youngblood, Rufus

Subject: FW: Exhibit B
Attachments: 2018 Pipeline Operations and Maintenance Manual.pdf; 2018 Site Specific Pipeline Operations and Maintenance Manual.docx

From: Youngblood, Rufus
Sent: Thursday, May 17, 2018 12:41 PM
To: Pevehouse, Danny; Hensler, Drew; Premock, Rick; Davidson, Dan; Booth, Tom; Richardson, Joe; Perez, Luis; Singleton, Michael; McGuire, Terry; Romero, Ted; Bolyard, Dennis; Brasseaux, Kirt; Smethers, Wendell; Howard, Greg; Davisson, Craig; Winters, Jerry; Hobi, Blake; Gielarowski, Cory; Peters, Dave; Pischke, Joseph; Wilson, Rich; Deslauriers, Kimberly; Rauschnot, James; Fegett, John; Pearson, Kevin; Heman, Don; Hall, Chris; Johnson, Andy; Gutierrez, Raymond; Richardson, Wes; Whisman, Denise; Waller, Dan
Cc: ! All Safety and Technical Managers; Region Safety Managers; ! All District Managers; ! All General Managers; ! All Operations Supervisors; ! All Region Vice Presidents; Frawley, Rick
Subject: 2018 Pipeline Operations & Maintenance Manual Revisions

Ferrellgas Pipeline Operators,

After a very active period of AHJ inspections in 2017, Ferrellgas has made several significant changes to the Program. Please review the following information regarding the Ferrellgas Pipeline Operations and Maintenance Manuals.

Background/purpose

Annual review and updating of the Ferrellgas Pipeline Operations and Maintenance Manual is a Federal DOT requirement. In conjunction with updating Employees on changes to the manual for 2018, the site-specific manual for each jurisdictional system must be reviewed and any updates to the information made at that time.

Responsibility

Field Management is responsible for ensuring all jurisdictional systems where Ferrellgas is the operator are in compliance with 49 CFR 191 and 192 and the operator of all Customer owned and operated systems has signed the Customer Owned and Operated System agreement posted on the Point under Safety \Safety Resources\ Jurisdictional Resources.

Action

Field Management must take the following actions:

- Ensure the Site-Specific Operations and Maintenance Manuals for all jurisdictional pipeline systems operated by Ferrellgas are reviewed and up to date. Download and complete the template for the plan from the Point using Microsoft Word®. This must be completed on or before 09/01/18.
- Retain a copy of the completed plan in a location where it will be readily available in the event of a PHMSA/State Agency inspection. This may be in electronic form, but a hard copy must be available if requested.

CHANGES TO THE PIPELINE OPERATIONS & MAINTENANCE MANUAL:

- **Section 1, page 20:** Revised the language for verification of odorant.

- **Section 1, page 21-23:** Added the Heath Odorator instructions.
- **Section 1, page 48:** Added criteria for inspecting above ground containers.
- **Section 1, page 55:** Slight revision to the language regarding installation of meters, piping, regulators and other equipment.
- **Section 1, page 64:** Added language regarding missing and/or additional DIMP information.
- **Section 3, page 10:** Added language regarding qualification of persons making mechanical joints.
- **Section 4, page 2:** Added language regarding NFPA 58 required training of personnel performing propane transportation and transfer.
- **The Point:** Developed a Reference Section on The Point titled "Operations & Maintenance Reference Material". This was put in place at the request of the Texas Railroad Commission and it contains reference material on the testing and installation instructions for mechanical fittings used with plastic pipe.
- Changed revision date.

CHANGES TO THE SITE SPECIFIC PIPELINE OPERATIONS & MAINTENANCE MANUAL:

- Changed revision date.

CHANGES TO THE OPERATOR QUALIFICATION FORMS:

- Revised the DIMP Confirmation Form to comply with the requirement for risk ranking reviews and gathering additional information through normal activities.

Contact your Region Safety Manger or Rufus Youngblood, at Cisco 37817 if there are any questions.

Rufus Youngblood
Director Safety



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Exhibit C



Automation Solutions
Regulator Technologies, Inc.

3200 Emerson Way
McKinney, TX 75070 USA

T (972) 548-3509
F (972) 547-3749

May 20, 2019

Rufus Youngblood
Director Safety
Ferrell Gas
One Liberty Plaza
Liberty, MO 64068
816-792-7817

Subject: Max Inlet Pressure of Second Stage Regulator in Jurisdictional System

Dear Mr. Youngblood,

This letter serves to confirm that the inlet pressure to the Fisher second stage regulators in Jurisdictional System can be set higher than the nameplate max inlet pressure on the regulators, up to the published maximum inlet pressure with good operation, and less than the maximum emergency inlet pressure of the regulators. Below are discussions on Jurisdictional System (JS), non-Jurisdictional System (non-JS), and specific Fisher second stage regulators.

Jurisdictional Systems

Jurisdictional Systems are any pipeline system that transport only petroleum gas, including propane gas, to more than 10 customers, whether the system is in public or private places, or to a single customer where the system is partially in public place.

Jurisdictional Systems are regulated by the US Department of Transportation (DOT) Pipeline Safety Regulations, Title 49 CFR Part 192, which reference provisions of NFPA 58, LP-Gas Code, with clarification when the NFPA 58 does not fully address the subject.

Per Subpart L of 49 CFR 192, each operator is required to create and maintain written procedures for operation, maintenance, and emergency response for the system. The operating manual must include the maximum allowable operating pressure (MAOP) of the system with appropriate pressure-limiting devices. The MAOP is based on weakest element in the segment – which could be the second stage regulators at the end of the system. These systems can operate at high MAOP to minimize the size of the piping. However, the minimum ambient temperature must be considered to prevent liquefaction of propane. This high MAOP in Jurisdictional System requires the second stage regulator to be able to operate with inlet pressure higher than that allowed in non-Jurisdictional System.

Non-Jurisdictional Systems

Non-Jurisdictional Systems are system with less than 10 customers on private properties. These systems are to meet NFPA 58, with the propane regulators meeting UL144. UL144 requires the maximum inlet pressure of the second stage regulators to be less than 10 psig, and

that the nameplate is marked with this maximum inlet pressure of 10 psig. Beside this, the standard also requires the internal relief valve to limit the regulator outlet pressure to 2 psig.

Fisher Second Stage Regulators

Fisher second stage propane regulators have been developed to meet the requirements of UL144. That is the maximum inlet pressure to be 10 psig, the nameplate marked with this, and the internal relief valve limit the regulator outlet pressure to 2 psig. Additionally, Fisher have validated these same regulators with the inlet pressure greater than 10 psig, to the maximum inlet pressures with good operation, where the regulators operate stable and limit outlet pressure to 2 psig in relief mode. This maximum inlet pressure with good operation is published for some of the regulators and document in lab tests for all regulators. The table below summarizes these inlet pressures from published Fisher literatures and lab test data.

Fisher Second Stage Regulators	Orifices (inch)	Max Inlet on labels UL144 (for non-JS)	Max Inlet With Good Operation (for JS)	Max Emergency Inlet	References Instruction Manual
HSRL	3/8	10 psig	20 psig *	30 psig	MCK 2141, *lab data
R222	9/64	10 psig	40 psig *	75 psig	MCK 2156, *lab data
R622	7/32	10 psig	25 psig *	50 psig	MCK 2141, *lab data
R642	7/32	10 psig	45 psig *	85 psig	MCK 2141, *lab data
R652	7/32	10 psig	40 psig *	50 psig	MCK 2141, *lab data

The system operators must select the appropriate regulators, with the maximum inlet pressure, to satisfy the MAOP of the system. If you have any questions, please don't hesitate to contact me.

Sincerely yours,



Tung Nguyen
Product Safety Officer
Emerson Automation Solutions Regulator Technologies Inc.

References:

1. 30NFPA58HB11CHS2 – LP-Gas Systems Subject to DOT Pipeline Regulation – 2011
2. PERC: Propane Jurisdictional Systems: A Guide to Understanding Basic Fundamentals and Requirements
3. 49 CFR PART 192—Transportation of Natural and Other Gas By Pipeline: Minimum Federal Safety Standards
4. NFPA 58: Liquefied Petroleum Gas Code
5. UL 144: Standard for Safety: LP-Gas Regulators