

STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION

City of Granville
Gas Safety - Granville, ND
Inspection

Case No. GS-10-602

ORDER ON PROBABLE VIOLATIONS

April 20, 2011

Preliminary Statement

The City of Granville (Granville) owns and operates a liquefied petroleum gas (LPG) distribution facility in Granville, North Dakota.

Under North Dakota Century Code section 49-02-01, the Public Service Commission (Commission) has jurisdiction over Granville as a public utility operating in North Dakota.

On August 11, 2010, the staff of the Commission's Gas Pipeline Safety Program conducted an audit of the gas safety records and an operator qualification field inspection of Granville's LPG distribution system

On October 12, 2010, Commission staff issued a Notice of Probable Violations and Proposed Compliance Orders (Notice) to Granville alleging twelve probable violations of the Public Service Commission's gas pipeline safety regulations (North Dakota Administrative Code Chapter 69-09-03).

On November 16, 2010, Granville filed with the Commission written explanations and other materials in response to the October 12, 2010 Notice.

On January 18, 2011, Granville filed an additional materials in response to the October 12, 2010 Notice.

Granville did not request a hearing.

Probable Violation Number 1

Granville's gas pipeline safety records indicate that on July 10, 2010, at approximately 11:30 a.m., the Mayor of Granville was notified that a gas service line at a

residence on the Granville LPG distribution system was cut by a trenching machine (July 10 emergency). A former Propane Commissioner for Granville, familiar with the LPG system, had already made an emergency shutoff of the main line at the plant. The residence service line was pinched. Granville contacted a third party to make repairs.

On July 15, 2010, the service line was repaired by Mike Zerr and Karlain Drader by installing Permasert® mechanical couplings. Subsequently, the repaired service line was pressure tested, the service meter was reinstalled, the service line was covered, and a leak check was performed.

Commission staff alleges that Granville did not make an adequate record to show the level of test pressure applied to the service pipe repaired during the July 10 emergency, as required under 49 CFR 192.603(b) which states each operator shall keep records necessary to administer the procedures established under 49 CFR Part 192.605. 49 CFR 192.605(a) requires that each operator prepare and follow a manual of written procedures for conducting operations and maintenance activities and for emergency response. 49 CFR 192.605(b)(1) requires that the manual include procedures for operating, maintaining, and repairing the pipeline in accordance with each of the requirements of Subpart M. 49 CFR 192.513(a) and (c) of Subpart M require that each segment of a plastic pipe be tested with a test pressure of at least 150 percent of the maximum allowable operating pressure or 50 p.s.i. gage, whichever is greater. Granville's Operation and Maintenance Plan, page 26 section 5.8 states that "The City will keep a permanent record that will indicate the date, location, test pressure, duration of the test, the length and size of the line tested, and the name of the person making the test." Page 47 section 7.8 of Granville's Operation and Maintenance Plan states that, "The line will be subjected to an air pressure test of at least 50 psig for a minimum of 15 minutes with no change in pressure."

Commission staff's review of Granville's July 10, 2010 Gas Emergency and Response Report shows that the damaged pipe was pressure tested but does not indicate the level of pressure applied to the repaired pipe. Commission staff proposes that Granville provide to the Commission a pressure test report to show the actual amount of pressure applied to the repaired service line. Commission staff proposes a civil penalty of \$1,000 for such a violation.

Granville acknowledged that it did not make a record of the actual level of test pressure applied to the repaired pipe. In its November 16, 2010 response, Granville included a record showing the service line was tested to approximately 85 pounds per square inch gage. The record did not show the actual test pressure or the duration of the pressure test or that there was no change in pressure over the duration of the pressure test.

The Commission finds that Granville violated 49 CFR Part 192.603(b).

Probable Violation Number 2

Commission staff alleges that Granville did not make an adequate record to show that all potential ignition sources were removed at the onset of the July 10 emergency, or that a fire extinguisher had been provided at the scene of the emergency, as required under 49 CFR 192.603(b) which states each operator shall keep records necessary to administer the procedures established by Section 192.605. 49 CFR 192.605(a) requires that each operator prepare and follow a manual of written procedures for conducting operations and maintenance activities and for emergency response. 49 CFR 192.605(b)(1) requires that the manual include procedures for operating, maintaining, and repairing the pipeline in accordance with each of the requirements subpart M. 49 CFR Part 192.751(a) of Subpart M requires that each operator 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: 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. Commission staff proposes that Granville provide a record to show that all potential ignition sources were removed from the scene at the onset of the July 10 emergency, and that a fire extinguisher had been provided at the scene of the emergency. Commission staff proposes a civil penalty of \$1,000 for such a violation.

Granville acknowledged that a written record had not been prepared to show that potential ignition sources were removed from the July 10 emergency scene. In its November 16, 2010 response Granville provided a copy of a letter by John Morrison, Granville City Mayor, stating that no ignition sources were present at the time he arrived at location of the service line cut. The November 16, 2010 response did not indicate that a fire extinguisher had been provided at the scene.

The Commission finds that Granville violated 49 CFR Part 192.603(b).

Probable Violation Number 3

Commission staff alleges that Granville did not qualify the procedure that was used to repair the service line damaged during the July 10 emergency, as required under 49 CFR Part 192.273(b). 49 CFR Part 192.273(b) requires that joints be made according to procedures proven by test or experience to produce strong gastight joints. Commission staff states that discussions with Granville staff and a review of Granville's Operation and Maintenance Plan indicate the fusion procedure used to repair the service line was not qualified. Commission staff proposes that Granville provide written proof that it has qualified the plastic joining procedure used to repair the service line in the July 10 emergency. Commission staff proposes a civil penalty of \$1,000 for such a violation.

In its November 16, 2010 response Granville states that the service line repair made during the July 10 emergency was checked with an air pressure test and soap-tested before service was re-established to the line. Granville also provided a marketing

brochure for the Permasert® mechanical couplings used to make the service line repair. Granville stated that it will modify its Operation and Maintenance Plan to include the use of Permasert® couplings.

The manufacturer's brochure provided by Granville does not include procedures for using the Permasert® mechanical couplings and there is no indication that Granville has verified that the Permasert® couplings and associated procedures for use have been proven by test or experience to produce strong gastight joints. Granville did not provide records showing that it has qualified or has written procedures in its Operation and Maintenance Plan of the plastic joining procedure used to repair the service line on July 15, 2010. In addition, the use of Permasert® mechanical couplings is not included in Granville's Operation and Maintenance Plan as allowable for use in making repairs for plastic lines on the Granville LPG distribution system.

The Commission finds that Granville violated its Operation and Maintenance Plan and 49 CFR Part 192.273(b).

Probable Violation Number 4

Commission staff alleges that Granville failed to qualify the person performing the mechanical joint procedure used to repair the service line in the July 10 emergency as required by Granville's Operation and Maintenance Plan and under 49 CFR Part 192.13(c). Appendix A of Granville's Operation and Maintenance Plan states that "No person may make a plastic joint on the city propane system unless that person has been certified by an applicable trainer...." 49 CFR Part 192.13(c) requires that each operator maintain, modify as appropriate, and follow the plans, procedures, and programs that it is required to establish under this Part 192. Commission staff states that discussions with Granville staff and a review of Granville's Operation and Maintenance Plan indicate that the person performing the plastic mechanical joint to repair the service line was not qualified. Commission staff proposes that the City of Granville provide written proof that the person performing the fusion procedure was qualified. Commission staff proposes a civil penalty of \$1,000.

Granville provided documentation to show the qualifications of the individuals that performed the repair, Zerr and Drader. The records provided as evidence of Drader's qualifications show training dated July 20, July 23, October 11, and October 13, 2010, all after the July 15, 2010 repair. The records provided as evidence of Zerr's qualifications show an April 7, 2000 qualification to perform plastic fusion; however, requalification for plastic fusion is required annually. No documentation was provided to show qualification specifically to plastic mechanical joint repair.

The Commission finds that Granville violated its Operation and Maintenance Plan and 49 CFR Part 192.13(c).

Probable Violation Number 5

Commission staff alleges that Granville failed to maintain 24-hour per day, seven days per week emergency contact communication availability as required in Section I of Granville's Emergency Response Plan and 49 CFR Part 192.13(c). 49 CFR Part 192.13(c) requires that each operator maintain, modify as appropriate, and follow the plans, procedures, and programs that it is required to establish under Part 192. Section I of Granville's Emergency Plan states that "In order to receive emergency calls, a telephone will be maintained so that emergency calls can be received twenty four hours a day seven days a week for proper response." Commission staff states that discussions with Granville staff revealed that the emergency cell phone assigned to the system operator is sometimes shut off and, sometimes given to non-LPG personnel for use while performing non-LPG tasks. Commission staff proposes that Granville insure to the Commission that it will maintain a 24-hour per day, seven days per week emergency contact communication for the LPG system. Commission staff proposes a civil penalty of \$1,000.

In its November 16, 2010 response, Granville states that since June 28, 2010, the date Drader was hired as maintenance employee, the emergency cell phone has not been shut off. On one occasion, the emergency cell phone was left with the City Auditor. Granville states that the emergency cell phone is not given to non-LPG system personnel for use while performing non-LPG system tasks. Drader has a personal cell phone which she uses for non-LPG system purposes.

The commission finds that Granville did not violate 49 CFR Part 192.13(c).

Probable Violation Number 6

After interviewing Granville staff and reviewing 2010 records, Commission staff alleges that Granville failed to classify the July 10 emergency as required under Section IV, page four, paragraph B of its Emergency Plan. Granville's Emergency Plan states that "In order to provide a uniform understanding of the degree of severity, all emergency situations will be classified..." Granville's Emergency Plan describes three classes of emergency. Under 49 CFR 192.13 (c) in effect at the time of the probable violation "Each operator shall maintain, modify as appropriate, and follow the plans, procedures, and programs that it is required to establish under this part." Granville is required to prepare and follow (establish) a manual of written procedures for conducting operations and maintenance activities and for emergency response under 49 CFR 192.605. Granville did not provide a record that the July 10 emergency had been classified. Commission staff proposes a civil penalty of \$1,000.

In its November 16, 2010 response, Granville acknowledged that the July 10 emergency was not classified as required by its Emergency Plan.

The Commission finds that Granville violated its Operation and Maintenance Plan and 49 CFR Part 192.13(c).

Probable Violation Number 7

Under 49 CFR 192.13 (c) in effect at the time of the probable violation "Each operator shall maintain, modify as appropriate, and follow the plans, procedures, and programs that it is required to establish under this part." Granville is required to prepare and follow (establish) a manual of written procedures for conducting operations and maintenance activities and for emergency response under 49 CFR 192.605. After interviewing Granville staff and reviewing 2010 records, Commission staff alleges that Granville did not provide a proper plastic pipe squeeze-off tool as described in its Operation and Maintenance Plan, section 11.6: "...Approved squeezer tools consist of two rounded metal bars and a mechanical or hydraulic means for forcing the bars together. Also, since plastic pipe is damaged if squeezed too much, the squeezers used by the operator will have built in stops." On July 10, 2010, a wood clamp was used as a squeeze-off tool to prevent the leakage of gas. The wood clamp remained in place until July 12, 2010 when it was replaced by Granville's approved squeeze-off tool. Commission staff proposes a civil penalty of \$1,000.

In its November 16, 2010 response, Granville confirmed that approved squeeze-off tools are maintained for use in connection with its LPG system.

The Commission finds that Granville violated its Operation and Maintenance Plan and 49 CFR Part 192.13(c).

Probable Violation Number 8

Commission staff alleges that Granville did not determine the location of applicable key valves to properly shut down the system as required under Section IV, paragraph D of Granville's Emergency Response Plan that states:

During an emergency, it may become necessary to rapidly shut down all or a portion of the distribution system. The following steps should be followed:

1. Determine the location of all valves that need to be closed. This can be determined by reviewing maps of key valve locations.

Under 49 CFR 192.13 (c) in effect at the time of the probable violation "Each operator shall maintain, modify as appropriate, and follow the plans, procedures, and programs that it is required to establish under this part." Granville is required to prepare and follow (establish) a manual of written procedures for conducting operations and maintenance activities and for emergency response under 49 CFR 192.605. Commission staff proposes a civil penalty of \$1,000.

In its November 16, 2010 response, Granville states that, although Drader was not familiar with the location of key valves on July 10, 2010, upon her arrival at the scene, the affected area of the LPG system had already been shut down by Tim Krout, a former Granville Propane Commissioner, who was familiar with the Granville LPG system. Granville states that several other Granville personnel are aware of the locations of key valves.

The Commission finds that Granville did identify and close the appropriate key valve at the time of the July 10, 2010 emergency and did not violate its Emergency Operations Plan and 49 CFR Part 192.13(c).

Probable Violation Number 9

Granville's LPG distribution system was shut down during the July 10 emergency. After interviewing Granville staff and reviewing 2010 records, Commission staff alleges that Granville did not properly restore service after the emergency repair by shutting down affected services at the risers and tagging those services until access to the buildings could be achieved and pilots could be properly relit. Section IV, paragraph D of Granville's Emergency Response Plan requires that:

When all or part of the system has been shut down, the service shut-off valves on all affected service lines will be closed and will not be turned on until the system has been reactivated.

Before individual service is restored, emergency personnel must gain access into the building, and to all gas appliances within the building. If access into the building is not possible, the shut-off valve will be left in the off position and locked, a tag will be left in a conspicuous location advising the customer to call the propane plant operator to arrange for restoration of service.

Under 49 CFR 192.13 (c) in effect at the time of the probable violation "Each operator shall maintain, modify as appropriate, and follow the plans, procedures, and programs that it is required to establish under this part." Granville is required to prepare and follow (establish) a manual of written procedures for conducting operations and maintenance activities and for emergency response under 49 CFR 192.605. Commission staff proposes a civil penalty of \$1,000.

In its November 16, 2010 response, Granville acknowledges that affected services for the entire city were not shut down at the risers and tagged until pilots could be relit.

The Commission finds that Granville violated its Emergency Response Plan and 49 CFR Part 192.13(c).

Probable Violation Number 10

After interviewing Granville staff and reviewing 2010 records, Commission staff alleges Granville failed to properly train its designated emergency responders, including the system operator. As required by Section VII, paragraph A of Granville's Emergency Response Plan, in effect at the time of the July 10 emergency, "Designated emergency personnel of the Granville Propane System will be trained to respond to emergencies including hands-on training when possible." Under 49 CFR 192.13 (c) in effect at the time of the probable violation "Each operator shall maintain, modify as appropriate, and follow the plans, procedures, and programs that it is required to establish under this part." Granville is required to prepare and follow (establish) a manual of written procedures for conducting operations and maintenance activities and for emergency response under 49 CFR 192.605. Commission staff proposes a civil penalty of \$1,000.

In its November 16, 2010 response, Granville neither acknowledges nor denies the allegation by Commission staff, but does state that some training has been provided to Granville staff since the July 10 emergency.

The Commission finds that Granville violated its Emergency Response Plan and 49 CFR Part 192.13(c).

Probable Violation Number 11

Commission staff alleges that Granville did not make an adequate record to show that a review of Granville employee activities was conducted to determine whether Granville's procedures were effectively followed in the July 10 emergency. 49 CFR 192.603(b) requires that each operator keep records necessary to administer the procedures established by Section 192.605. 49 CFR Part 192.605(a) requires that each operator prepare and follow for each pipeline, a manual of written procedures for conducting operations and maintenance activities and for emergency response. 49 CFR 192.615(b)(3) requires that each operator review employee activities to determine whether the procedures are effectively followed in each emergency. Commission staff states that a review of Granville's 2010 records does not show that a review of Granville employee activities was conducted. Commission staff proposes that Granville provide a written report that shows a review of Granville employee activities during the July 10 emergency and a determination as to whether Granville's procedures were effectively followed. Commission staff proposes a civil penalty of \$1,000.

In its November 16, 2010 response Granville acknowledges that a formal review was not conducted to determine whether procedures were effectively followed during the July 10 emergency. Granville states that a review of the response to the July 10 emergency has been performed in the form of Granville's response to these proceedings.

The Commission finds that Granville did not make an adequate record to show that a review of Granville employee activities in the July 10 emergency was conducted to

determine whether Granville's emergency procedures were effectively followed. The Commission finds that Granville violated 49 CFR Part 192.603(b).

Probable Violation Number 12

Commission staff alleges that Granville did not ensure through evaluation that individuals performing tasks covered by its written operator qualification (OQ) program were qualified, as required under 49 CFR 192.805(b). The program must include provisions to ensure through evaluation that individuals performing covered tasks are qualified. The July 10 emergency required the performance of several covered tasks and Commission staff's interview of Granville staff revealed that persons performing covered tasks were not qualified. Covered tasks listed in Granville's OQ program include:

1. Vaporization plant operations
2. Emergency shut-down of the supply tank
3. Characteristics and hazards of propane
4. Potential ignition source – indoor/outdoor
5. Recognizing emergency conditions
6. Recognizing and reporting propane gas leaks
7. Personal protective equipment
8. Controlling the accidental release of gas
9. Recognizing unsafe meter sets
10. Leak classification
11. Operating a combustible gas indicator
12. Emergency response and restoration of service
13. Leak surveys and patrols
14. Customer leak investigation
15. Pressure checks to establish gas service
16. Establishing and disconnecting gas
17. Odorization
18. Bar hole testing and purging
19. Locating and marking facilities
20. Installing service
21. Abandoning facilities
22. Job site protection
23. Back hoe safety
24. Excavation and shoring safety
25. Plastic pipe fusion
26. Plastic pipe repair
27. Fusion qualifications
28. Pressure testing plastic pipelines
29. Purging safety

Commission staff proposes that Granville provide, in writing, a system operator training plan which shows all covered tasks, the name(s) of individuals who perform the covered tasks, and when and how those individuals were qualified to perform the covered

tasks. If Granville's staff has not been qualified to perform certain tasks, then Granville must show how and when training will occur. Commission staff further proposes that Granville provide to the Commission OQ records for any individuals or contractors who will perform covered tasks in the interim until Granville staff has been qualified. Commission staff proposes a civil penalty of \$3,000.

In its November 16, 2010 response, Granville provided documentation to show the qualifications of the individuals that performed covered tasks during the July 10 emergency. The documentation provided as evidence of Drader's qualifications shows training on July 20, July 23, October 11, and October 13, 2010. This training occurred after the July 10 emergency and July 15, 2010 repair. Drader was not qualified to perform the covered tasks.

Documentation provided as evidence of Zerr's qualifications shows a list of qualifications from his own business, Cool Fish Services Inc., and qualifications from his previous employer, Montana-Dakota Utilities Co. (MDU). Commission staff's review of MDU's OQ program indicates that MDU suspends the qualifications when an individual no longer performs the covered tasks, or if an absence takes the individual away from regular duties for 90 days or longer. Zerr was not qualified to perform covered tasks because Cool Fish Services Inc. has no OQ Program, because he was no longer employed by MDU after September 2009 and qualifications are suspended, and because there is no record that that Granville qualified him under their OQ program.

The Commission finds that Granville violated 49 CFR 192.805(b).

Under North Dakota Century Code section 49-02-01.2, the Commission has authority to establish and enforce minimum safety standards for the design, construction, and operation of gas distribution facilities and intrastate pipeline facilities used for the distribution and intrastate transportation of gas.

Granville is required by law to operate its LPG gas distribution facilities in compliance with North Dakota's minimum gas pipeline safety standards adopted under North Dakota Administrative Code section 69-09-03-02, specifically the Title 49, Code of Federal Regulations, Parts 190, 191, 192, and 199.

Under Century Code section 49-07-05.1, any person who violates any rule or order issued by the Commission pursuant to section 49-02-01.2 is subject to a civil penalty to be imposed by the Commission of not to exceed \$10,000 per violation per day, not to exceed \$500,000 for any related series of violations. The civil penalty may be compromised by the Commission.

The sum of the civil penalties proposed by Commission staff is \$12,000. In determining the amount of a civil penalty, the Commission must consider the appropriateness of such penalty to the size of the business of the person charged, the nature, circumstances, and gravity of the violation, the degree of culpability, any history of

prior violations, the effect on ability to continue to do business, the ability to pay the penalty, the good faith of the person charged in attempting to achieve compliance, after notification of a violation, and such other matters as justice may require. After review of the City of Granville's response to the Commission on November 22, 2010, stating "Granville is a small town (population approximately 250) with limited resources. It operates an LPG plant in order to provide service to Granville citizens at affordable cost. Operations of the LPG system are funded entirely by propane sales. The proposed penalties would cause financial hardship to the City of Granville and could jeopardize Granville's ability to continue to provide this necessary service to its citizens." We find that the civil penalties of \$12,000 total could cause financial hardship, and affect the ability of the City of Granville to continue doing business.

Granville indicated that, since the time of the July 10 emergency, Drader has attended nine courses sponsored by the North Dakota Propane Gas Association related to propane and propane safety:

- Gas Check (July 20, 2010)
- Hazmat (Hazardous Materials) Training (July 20, 2010)
- Basic and Delivery Refresher Training (July 20, 2010)
- Static Electricity in Propane Industry (July 20, 2010)
- Regulatory Update (July 20, 2010)
- Vapor Distribution System Operation Systems (July 21 - 23, 2010)
- Basic Practices and Principals of Propane (September 27 - 28, 2010)
- Propane Office Personnel training (October 13, 2010)
- Preparing and Installing Vapor Distribution System Components (July 21-23, 2010)

The Commission staff reviewed Granville's OQ Program, section 7.4 (Evaluation Methods), which states "Only qualified individuals will perform evaluations," on Granville staff. Commission staff finds that Drader is not qualified for the Basic Principles and Practices, Vapor Distribution System Operation Systems and Preparing and Installing Vapor Distribution System Components because records indicate that Arland Mueller was not qualified in the tasks to perform the CETP Performance Evaluations for Drader.

Granville indicated that the City Auditor, Nancy Mueller, has completed Federal Emergency Management Agency emergency management training in 2007 and the Propane Office Personnel training in 2009 and 2010.

Order

The Commission orders:

1. The City of Granville committed Violation Number's One, Two, Three, Four, Six, Seven, Nine, Ten, Eleven and Twelve in the operation of its LPG distribution system in Granville, North Dakota as stated in this Order.

2. The City of Granville is assessed a civil penalty of \$500 each for Violation Nos. 1, 2, 3, 4, 6, 7, 9, 10, and 11, and \$3,000 for Violation No. 12 for a total civil penalty of \$7,500.
3. The City of Granville shall remit to the Commission \$2,500 of the assessed civil penalty by no later than 30 days from the date of this Order.
4. The City of Granville shall use \$5,000 of the assessed civil penalty for continuing the training and qualification of the system operator, and remit to the Commission a record of attendance and costs of the training by no later than 6 months from the date of this order.
5. The City of Granville shall, within 30 days from the date of this Order, provide to the Commission a pressure test report to show the actual amount of pressure applied and test duration to the service line repaired on July 15, 2010.
6. The City of Granville shall, within 30 days from the date of this Order, provide to the Commission written proof that it has qualified the plastic joining procedure in Granville's Operation and Maintenance Plan that was used to repair the service line on July 15, 2010.
7. The City of Granville shall, within 30 days from the date of this Order, provide to the Commission a written emergency training plan that will insure that in the future all emergencies will be responded to in accordance with Granville's Emergency Response Plan and 49 CFR Part 192.
8. The City of Granville shall, within 30 days from the date of this Order, provide to the Commission a written report that shows a review of Granville employee activities during this emergency and a determination as to whether Granville's procedures were effectively followed.
9. The City of Granville shall, within 30 days from the date of this Order, provide to the Commission, in writing, a system operator training plan which shows all of Granville's covered tasks, the name(s) of individuals who perform those tasks, and when and how those individuals were qualified to perform those tasks. If Granville's staff has not been qualified to perform certain tasks, then the City of Granville shall show how and when training will occur. The City of Granville shall provide to the Commission operator qualification records for any individuals or contractors who will perform covered tasks in the interim until Granville staff has been qualified.

PUBLIC SERVICE COMMISSION

Kevin Cramer
Commissioner

Tony Clark
Chairman

Brian P. Kalk
Commissioner

