THE STATE CORPORATION COMMISSION
OF THE STATE OF KANSAS

Before Commissioners: Shari Feist Albrecht, Chair
Jay Scott Emler
Dwight D. Keen

In the Matter of the General Investigation Into the Operations of Kansas Gas Service, a Division of ONE Gas, Inc., Regarding the Natural Gas Incident that Occurred at 4550 SE 29th Street in Topeka, Shawnee County, Kansas.	)	Docket No. 18-KGSG-126-GIP

ORDER CLOSING GENERAL INVESTIGATION

This matter comes before the State Corporation Commission of the State of Kansas (Commission) for consideration and decision. Having reviewed the files and records, and being duly advised, the Commission finds and concludes as follows:

I. BACKGROUND

1. The Natural Gas Pipeline Safety Act of 1968 (49 U.S.C. § 60101 et seq.) requires all pipelines transporting natural gas to meet minimum safety requirements as promulgated by the U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration (PHMSA). Under the Act, the State of Kansas is to obtain jurisdiction over intrastate natural gas pipelines, provided the state pipeline safety program meets PHMSA certification requirements.

2. The Commission, under the authority of K.S.A. 66-1,150, has oversight for the safety of all intrastate natural gas pipelines and is annually certified by PHMSA. PHMSA requires the Commission to investigate natural gas incidents that have resulted in personal injury requiring hospitalization, a fatality, property damage exceeding $50,000, the release of more than 3,000 MCF of natural gas, and/or other incidents otherwise considered significant.

3. On September 19, 2017, Commission Staff (Staff) filed its Motion to Open Docket.[1] Staff requested the Commission open a general investigation to examine a natural gas release, and resulting flash fire, that occurred at a residence located at 4550 SE 29th Street within the city limits of Topeka, Kansas.[2] Kansas Gas Service, a Division of ONE Gas, Inc. (KGS), operates the pipeline associated with this incident.[3] As a result of the release and fire, a contract worker for KGS was injured and required hospitalization.[4] KGS operates within the State of Kansas as a natural gas public utility and is lawfully certified to operate as such.

4. On September 26, 2017, the Commission adopted Staff's motion and issued an Order Opening General Investigation.

5. On June 4, 2018, Staff filed its Memorandum in this docket.[5] Staff recommended the Commission find the subject incident was accidental and suggested this docket be closed.[6]

II. FINDINGS AND CONCLUSIONS

6. Pursuant to K.S.A. 66-1,150 *et seq.*, the Commission is authorized to adopt rules and regulations as may be necessary to be in conformance with the Natural Gas Pipeline Safety Act of 1968 (49 U.S.C. § 60101 et seq.), as amended. Accordingly, pursuant to this authority the Commission has jurisdiction to investigate intrastate natural gas incidents that have resulted in personal injury requiring hospitalization, a fatality, property damage exceeding $50,000, the release of more than 3,000 MCF of natural gas and/or other incidents otherwise considered significant.[7]

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[1] Motion to Open Docket (Sep. 19, 2017).
[2] Id, page 1.
[3] Id.
[4] Id.
[5] Staff's Memorandum (June 4, 2018).
[6] Id.
[7] For reference, the Commission's adoption of PHMSA regulations, reporting requirements and enforcement procedures may be found at K.A.R. 82-11-1 et seq.

7. Staff's Memorandum, filed in this docket on June 4, 2018, is hereby adopted and incorporated by reference. The Commission has reviewed Staff's Memorandum, and hereby adopts the findings and recommendations contained therein.

8. Staff's Memorandum determined the gas release was caused by the failure of a temporary tapered screw plug to stay in place while the pipe carrying the gas was being welded.[8] The dislodgement of the plug resulted in gas at 40 psi operating pressure escaping from a 5/8 inch diameter hole in the pipeline; the escaping gas is believed to have been ignited by a welder's electric powered pipe cleaning equipment.[9] A review of KGS procedures indicates the personnel repairing the pipeline were following all relevant procedures at the time of the accident. Ultimately, Staff found no evidence of a violation of pipeline safety regulations associated with abovementioned incident.[10]

9. According to KGS, in order to minimize the possibility of a repeat incident, KGS is currently developing a procedure modification to use a clamp that will hold the temporary plug in place until it can be welded to make a permanent repair.[11] A photo of the pin clamping device is attached hereto as Exhibit 3. Currently, the procedure is under review by KGS management. Although KGS' current, unmodified repair practice is standard industry practice, Staff and KGS agree that the use of the external clamping device will enhance safety.[12] Based on the foregoing, Staff recommends the Commission find the subject incident accidental and requests the present docket be closed.[13] Additionally, during the course of routine pipeline safety inspections, Staff

[8] Id.
[9] Id.
[10] Id.
[11] Id, page 2.
[12] Id, page 3.
[13] Id.

will review the proposed procedure modification to ensure it is appropriate to address the above described scenario.

10. The Commission finds the record for this general investigation is now complete and no further action is required from Staff or KGS at this time. Accordingly, the Commission finds and concludes this docket should be closed.

IT IS, THEREFORE, BY THE COMMISSION ORDERED THAT:

(A) For the reasons set forth above, the above-captioned docket is hereby closed, as recommended by Staff.

(B) The parties have fifteen (15) days, plus three (3) days if service of this order is by mail, from the date this order was served in which to petition the Commission for reconsideration of any issue or issues decided herein. K.S.A. 66-118b; K.S.A. 2017 Supp. 77-529(a)(1).

(C) The Commission retains jurisdiction over the subject matter and the parties for the purpose of entering such further orders as it may deem necessary and proper.

BY THE COMMISSION IT IS SO ORDERED.

Albrecht, Chair; Emler Commissioner; Keen, Commissioner

Dated: 06/14/2018

Lynn M. Retz
Secretary to the Commission

PZA

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MEMORANDUM

To: Chair Shari Feist Albrecht
Commissioner Jay Scott Emler
Commissioner Dwight D. Keen

From: Suzanne Balandran-Gonzales, Public Service Administrator
Leo M. Haynos, Chief Engineer
Jeff McClanahan, Director of Utilities

Date: May 31, 2018

Subject: Docket 18-KGSG-126-GIP: In the Matter of the General Investigation into the Operations of Kansas Gas Service, a Division of ONE Gas, Inc., Regarding the Natural Gas Incident that Occurred at 4550 S.E. 29th Street in Topeka, Shawnee County, Kansas

EXECUTIVE SUMMARY:

On September 1, 2017, a natural gas main operated by Kansas Gas Service, a Division of ONE Gas, Inc. (KGS) experienced a gas release during a service tap abandonment at 4550 SE 29th Street in Topeka, Kansas. The escaping gas ignited, triggering a flash fire. The fire caused injuries that required hospitalization of an employee for NPL Construction Company (NPL), who was performing a service line abandonment. Because the natural gas incident resulted in injury requiring hospitalization, this event is considered to be a natural gas incident as defined in 49 CFR Part 191.5 and adopted by K.A.R. 82-11-3. Pursuant to an agreement between the Commission and the U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration (PHMSA), Commission Staff (Staff) is responsible for investigating intrastate natural gas incidents, determining if any violations of pipeline safety regulation occurred, and making recommendations to minimize the possibility of reoccurrence.

Upon completing its investigation, Staff has determined the gas release was caused by the failure of a tapered screw plug to stay in place during a welding operation. The dislodgement of the plug resulted in gas at 40 psi operating pressure escaping from a 5/8 inch diameter hole in the top of the pipeline. The escaping gas is believed to have been ignited by the welder's electric-powered pipe cleaning equipment. A review of KGS and NPL procedures indicate the personnel repairing the pipeline were following all relevant procedures at the time of the incident. Staff found no evidence of a violation of pipeline safety regulations associated with this incident. In

order to minimize the possibility of a plug dislodgement in the future, KGS and NPL are developing a procedure modification to use a clamp that will hold the temporary plug in place until it can be welded to make a permanent repair.

Staff recommends this investigation be closed. During the course of routine pipeline safety inspections, Staff will review the proposed procedure modification to ensure it is appropriate to address the above described scenario.

BACKGROUND:

On September 1, 2017, natural gas was released while a KGS contract employee was preparing a pipeline for a welding operation. Staff's investigation indicates the contract employees had initiated a controlled release of natural gas by removing a threaded service tap tee leaving a 5/8 inch diameter opening in the pipeline. Working in the gas environment, the personnel installed a tapered screw plug to effect a gas tight connection at the service tap. Exhibit 1 provides a picture and description of the tapered plug. Once the opening in the pipeline was sealed, the welder began to clean the area around the plug in order to weld it permanently in place. During the cleaning procedure, the plug dislodged causing an immediate release of gas that is believed to have been ignited by the welder's electrically powered steel brush. The gas fire burned the face and nose of the welder, which required his hospitalization. The fire was immediately extinguished by the NPL personnel designated as the "fire-watch" for the welding procedure. The welder was wearing appropriate personal protective equipment (PPE) for working in a gas free environment.

ANALYSIS:

As shown in Exhibit 1, the tapered plug is designed to provide a gas tight seal for a relatively round hole in a pipe wall. The pin is configured with self-tapping threads which allows it to grip the edges of the opening. The tapered design allows a given plug to fit a variety of different size openings and provides a seal as the pin is tightened into the hole. Exhibit 2 provides a photo of the pin installation which was performed at the site of the incident after the incident occurred.

In the KGS repair practice, after the pin is tightened into the hole, the pin is welded in place in order to make the repair permanent. In this case, the "hole" in the pipe wall was a threaded tap hole directly in the body of the mainline from which the original service had been removed. The NPL personnel had installed the plug and tightened it to the point that no gas was leaking from the fitting. As the welder was cleaning the pipe to prepare it for welding, the vigorous action of the rotating steel brush evidently caused the pin's self-tapping threads to pull loose from the pipe fitting.

The use of the above-described procedure is a standard repair practice that has been used successfully on a routine basis by KGS and NPL. Staff considers the failure of the pin to adequately grip the pipe wall to be an abnormal failure of the repair practice. Staff, NPL, and KGS have discussed the pros and cons of alternative repair procedures for this circumstance and have concluded the use of a tapered pin is an acceptable repair method. In fact, under some of

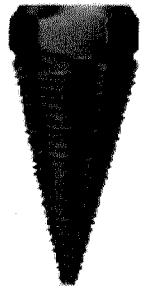
the considered scenarios, it is the preferred repair method. In order to minimize the possibility of a pin becoming dislodged before it is welded in place, KGS and NPL have proposed to modify the repair procedure to require the use of an external clamp that will hold the pin in place until it can be welded. A photo of the pin clamping device is attached as Exhibit 3. At this time, the procedure modification is under review by KGS management. Although the use of tapered pins to repair gas leaks is standard industry practice, Staff agrees with KGS that the use of the external clamping device will enhance the safety of the procedure.

RECOMMENDATION:

Staff recommends the Commission find the subject incident was accidental. The procedure modification proposed by KGS and NPL will enhance the safety of the repair practice and should prevent a recurrence of an incident under similar conditions. Therefore, Staff recommends this investigation be closed. During the course of routine pipeline safety inspections, Staff will review the proposed procedure modification to ensure it is appropriate to address the above described scenario.

Exhibit 1

Tapered screw plug inserted into 5/8" diameter hole in the pipeline



5/8" Hex x 2-1/8"

Exhibit 1

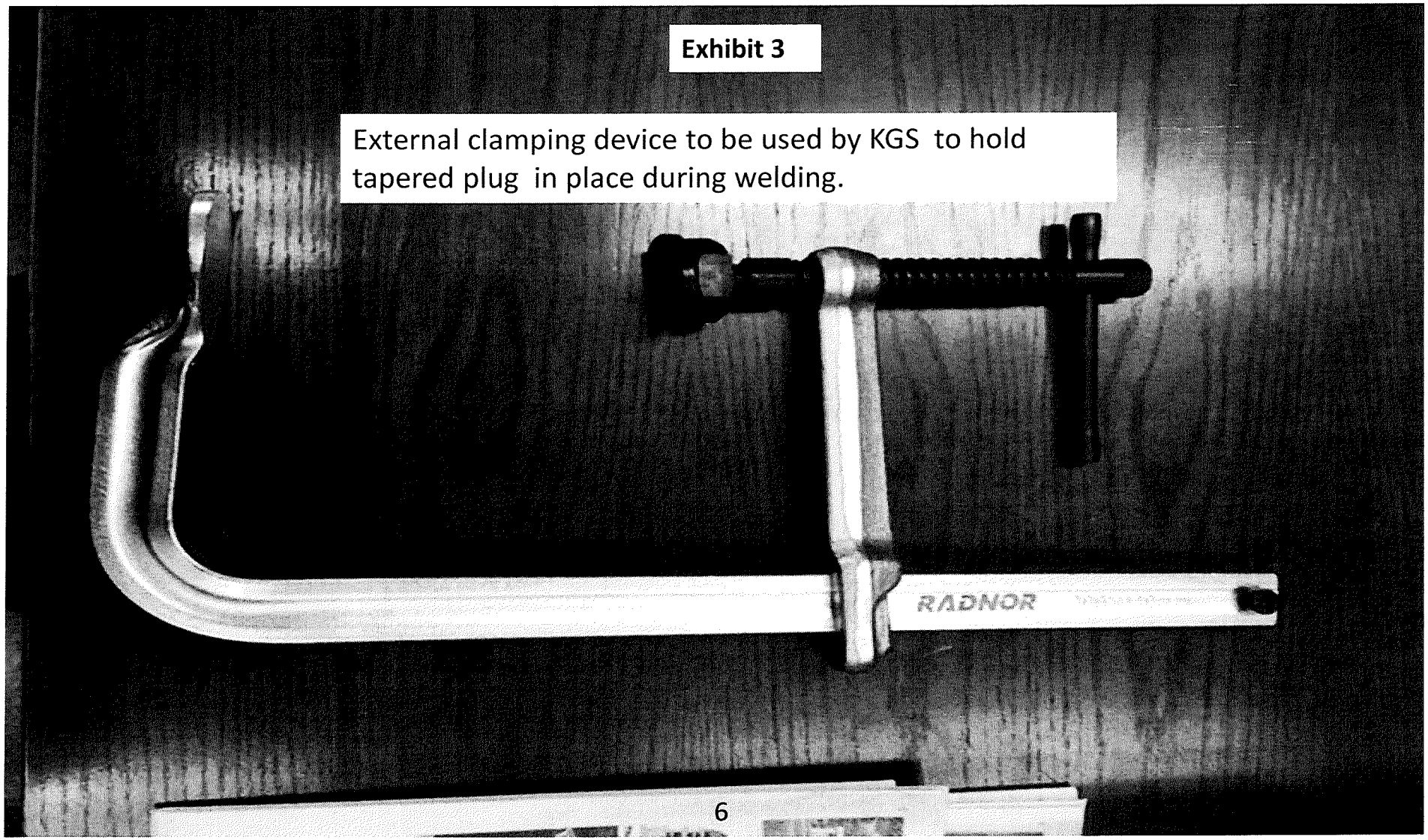
Tapered screw plug inserted into 5/8" diameter hole in the pipeline

5/8" Hex x 2-1/8"

Exhibit 2

Exhibit 3

External clamping device to be used by KGS to hold tapered plug in place during welding.



CERTIFICATE OF SERVICE

18-KGSG-126-GIP

I, the undersigned, certify that the true copy of the attached Order has been served to the following parties by means of electronic service on 06/14/2018.

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/S/ DeeAnn Shupe
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