



U.S. Department
of Transportation

Pipeline and Hazardous Materials
Safety Administration

1200 New Jersey Ave., SE
Washington, DC 20590

OCT 16 2009

Mr. Edward C. McMurtrie
Vice President/General Manager
Paiute Pipeline Company
P.O. Box 94197
Las Vegas, Nevada 89193-4197

Docket No. PHMSA-2009-0100

Dear Mr. McMurtrie:

By letter dated March 26, 2009, you wrote to the Pipeline and Hazardous Materials Safety Administration (PHMSA) on behalf of Paiute Pipeline Company (Paiute Pipeline) requesting a special permit to waive compliance from PHMSA's pipeline safety regulations for the operation of certain main line valves on the Paiute Pipeline in the State of Nevada. The pipeline safety regulations in 49 CFR §§ 192.605 and 192.745 require the operator of each gas transmission pipeline to inspect and partially operate each transmission line valve that might be required during any emergency at intervals not exceeding 15 months, but at least once each calendar year.

PHMSA is granting this special permit (enclosed) to Paiute Pipeline. The special permit allows Paiute Pipeline to conduct the valve maintenance inspections required by §§ 192.605 and 192.745 on the Paiute Pipeline without partially operating the PBV trunnion mounted ball valves. The intent is to provide Paiute Pipeline time to inspect, repair or replace the potentially defective valve cap screws on these valves. The special permit expires when all the suspect PBV trunnion mounted ball valves have been remediated or on December 31, 2010, whichever occurs first. This special permit has conditions and limitations and provides some relief from the Federal pipeline safety regulations for Paiute Pipeline while ensuring that pipeline safety is not compromised.

My staff would be pleased to discuss this special permit or any other regulatory matter with you. Please call John Gale, Director of Regulations at 202-366-0434, for regulatory matters or Alan Mayberry, Director of Engineering and Emergency Support at 202-366-5124, for technical matters specific to this special permit.

Sincerely,

for Jeffrey D. Wiese
Associate Administrator for Pipeline Safety

Enclosure (Special Permit)

U. S. DEPARTMENT OF TRANSPORTATION
PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION (PHMSA)
SPECIAL PERMIT

Docket Number: PHMSA-2009-0100
Pipeline Operator: Paiute Pipeline Company
Date Requested: March 26, 2009
Code Section(s): 49 CFR §§ 192.605 and 192.745

Grant of Special Permit:

By this order, the Pipeline and Hazardous Materials Safety Administration (PHMSA) grants this special permit to Paiute Pipeline Company (Paiute Pipeline), for PBV trunnion mounted ball valves on the Paiute Pipeline in the State of Nevada. This special permit allows Paiute Pipeline to conduct the valve maintenance inspections required by 49 CFR §§ 192.605 and 192.745 on the Paiute Pipeline without partially operating the PBV trunnion mounted ball valves. The intent is to provide Paiute Pipeline time to inspect, repair or replace the valve cap screws on these critical valves. This special permit has conditions and limitations and provides some relief from the Federal pipeline safety regulations for Paiute Pipeline while ensuring that pipeline safety is not compromised.

PHMSA grants this special permit based on the findings set forth in the “*Special Permit Analysis and Findings*” document, which can be read in its entirety in Docket No. PHMSA-2009-0100 in the Federal Docket Management System (FDMS) located on the Internet at www.Regulations.gov.

Conditions:

The grant of this special permit is subject to the following conditions and stipulations:

- 1) Within 30 days of the grant of this special permit, Paiute Pipeline must provide to the Director, PHMSA Western Region a list of all known suspect PBV trunnion mounted ball valves to include the valve locations, sizes and installation dates.
- 2) Paiute Pipeline must continue to visually inspect the PBV trunnion mounted ball valves as required by § 192.745.

- 3) Paiute Pipeline must conduct leakage surveys of each potentially affected PBV trunnion mounted ball valve using gas detector equipment at least four times each calendar year at intervals not exceeding 4 ½ months. Leakage surveys must continue until the valve is repaired, replaced or determined to be safe.
- 4) The special permit applies only to normal operations. In the event of an emergency, Paiute Pipeline must operate each PBV trunnion mounted ball valve required to shutdown the pipeline in compliance with 49 CFR Part 192. Each suspect PBV trunnion mounted ball valve operated during an emergency must be checked for leakage as soon as possible after it has been operated and again the next day to confirm the integrity of the valve.
- 5) Paiute Pipeline must designate alternate valves to be operated in an emergency in the event one of the suspect PBV trunnion mounted ball valves fails to perform an adequate shutdown of the pipeline.
- 6) Within 30 days following receipt of this special permit, Paiute Pipeline must provide to the Director, PHMSA Western Region its investigation findings and a remediation plan to include a schedule for repairing, or replacing the affected PBV trunnion mounted ball valves by December 31, 2010.
- 7) Paiute Pipeline must provide to Director, PHMSA Western Region quarterly updates on the progress of the valve remediation plan. Quarterly reports should begin with the calendar year quarter during which this special permit is granted and should continue until December 31, 2010, or until the plan is completed, whichever occurs first. The quarterly report is due not later than the last day of the month following the calendar quarter. For example, the quarterly report for the third quarter of 2009 is due not later than October 31, 2009.
- 8) If Paiute Pipeline performs a metallurgical analysis and root cause failure analysis of any PBV trunnion mounted ball valve cap screws on the Paiute Pipeline system, a copy of the report must be provided to the Director, PHMSA Western Region within 30 days of completion of the analysis report.
- 9) Paiute Pipeline must update their operations and maintenance (O & M) procedures in accordance with § 192.605 to include Conditions 1 through 8 of this special permit within 30 days of receipt of this special permit.


Limitations:

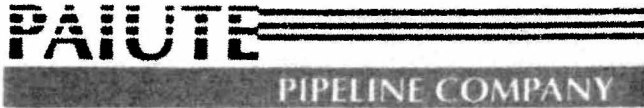
PHMSA grants this special permit subject to the following limitations:

- 1) This special permit expires when Paiute Pipeline has remediated all the suspect PBV trunnion mounted ball valves on the Paiute Pipeline or on December 31, 2010, whichever occurs first.
- 2) PHMSA has the sole authority to make all determinations on whether Paiute Pipeline has complied with the specified conditions of this special permit.
- 3) Should Paiute Pipeline fail to comply with any of the specified conditions of this special permit, PHMSA may revoke this special permit and require Paiute Pipeline to comply with the regulatory requirements in 49 CFR §§ 192.605 and 192.745.
- 4) PHMSA may revoke, suspend or modify a special permit based on any finding listed in 49 CFR § 190.341(h)(1) and require Paiute Pipeline to comply with the regulatory requirements in 49 CFR §§ 192.605 and 192.745.
- 5) Should PHMSA revoke, suspend or modify a special permit based on any finding listed in 49 CFR § 190.341(h)(1), PHMSA will notify Paiute Pipeline in writing of the proposed action and provide Paiute Pipeline an opportunity to show cause why the action should not be taken unless PHMSA determines that taking such action is immediately necessary to avoid the risk of significant harm to persons, property or the environment (see 49 CFR § 190.341(h)(2)).
- 6) The terms and conditions of any corrective action order, compliance order or other order applicable to a pipeline facility covered by this special permit will take precedence over the terms of this special permit in accordance with 49 CFR § 190.341(h)(4).

AUTHORITY: 49 U.S.C. 60118(c) and 49 CFR § 1.53.

Issued in Washington, DC on OCT 16 2009.


for Jeffrey D. Wiese
Associate Administrator for Pipeline Safety



Edward C. McMurtrie, Vice President/General Manager

APR 01 2009

March 26, 2009

Mr. Jeffrey D. Wiese
Associate Administrator, Pipeline Safety
Pipeline and Hazardous Materials Safety Administration
1200 New Jersey Avenue, SE, Room E22-330
Washington, DC 20590

Dear Mr. Wiese:

**Subject: Request for Special Permit – Operation and Maintenance of
2” to 20” PBV Valves**

By way of this letter, Paiute Pipeline Company, a subsidiary of Southwest Gas Corporation, hereinafter referred to as “Paiute,” is requesting a special permit from the Pipeline and Hazardous Materials Safety Administration (PHMSA) under the provisions of 49 USC §60118 and Title 49 Code of Federal Regulations (49 CFR) §190.341. This request is to allow Paiute to temporarily deviate from certain federal pipeline safety regulations and Paiute maintenance procedures relative to the partial operation of certain buried steel ball valves during regularly scheduled valve maintenance activities. The relevant federal pipeline safety regulations are 49 CFR §192.605 (for Paiute’s procedures) and 49 CFR §192.745 (for transmission valve maintenance). Paiute proposes alternatives for this deviation that will provide an equivalent or improved level of safety for Paiute’s employees, customers and for the general public.

Paiute owns and operates 856 miles of interstate gas transmission pipeline in the state of Nevada. Paiute’s PHMSA Operator Identification Number is 15033.

The valves that are the subject of this request were manufactured by P.B.V. USA, Inc. (PBV). In early February 2009, Paiute’s Corporate Purchasing Department was notified by PBV that trunnion-supported ball valves manufactured by PBV during the period 1990 through 1997 have the potential for a trunnion and gland cap screw failure if the valve is installed in buried service with applied cathodic protection (See Attachment 1). Above-ground PBV valves are not affected by this notice. Paiute has purchased a number of PBV ball valves of various sizes and installed them in buried service, so the notice about PBV ball valves in buried service with applied cathodic protection is applicable to Paiute.

Mr. Jeffrey D. Wiese
March 26, 2009
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4. On or before April 30, 2009 Paiute will provide the PHMSA Western Region office with a list of known and suspected PBV valves in Paiute's interstate system;
5. On or before April 30, 2009, Paiute will provide the PHMSA Western Region office with a remediation plan and schedule for addressing the subject valves; and
6. Paiute will provide the PHMSA Western Region office with periodic updates on the status of the project on a mutually agreeable frequency.

Paiute is strongly committed to the reliable delivery of natural gas to our customers and to the safety of our customers, our employees and the general public. Paiute intends to proceed rapidly with the investigation in order to identify and implement the appropriate remediation for this issue in a timely manner.

Jeff Maples, Director, will be Paiute's primary point of contact for this project (Jeff.Maples@swgas.com; Phone: (775) 887-2805). Please feel free to contact Jeff or me if you have any questions.

Sincerely,



cc: Chris Hoidal, PHMSA-Western Region
Tom Finch, PHMSA-Western Region
G. Denio, Southwest Gas
D. Gallo, Southwest Gas

U.S. DEPARTMENT OF TRANSPORTATION
PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION (PHMSA)

Special Permit Analysis and Findings

Special Permit Information:

Docket Number: PHMSA-2009-0100
Pipeline Operator: Paiute Pipeline Company
Date Requested: March 26, 2009
Code Section(s): 49 CFR §§ 192.605 and 192.745
System Affected: This special permit request pertains to the Paiute Pipeline Company operations in the state of Nevada.

Purpose:

Paiute Pipeline Company (Paiute Pipeline) requested a special permit to waive compliance from PHMSA's pipeline safety regulation 49 CFR §§ 192.605 and 192.745 for the operation of certain transmission line valves on the Paiute Pipeline operations in the state of Nevada. The Pipeline and Hazardous Materials Safety Administration (PHMSA) provides this document to describe the relevant facts of the special permit request outlined below, to discuss any public comments received regarding the special permit request, to present the safety analysis prepared with regards to the special permit request, and to list the findings of that analysis.

Special Permit Request:

On March 26, 2009, Paiute Pipeline Company (Paiute Pipeline) requested a special permit to waive compliance from PHMSA's pipeline safety regulations in 49 CFR §§ 192.605 and 192.745 for the operation of certain transmission line valves on the Paiute Pipeline in the state of Nevada. The pipeline safety regulations in § 192.745 require the operator of each gas transmission pipeline to inspect and partially operate each transmission line valve that might be required during any emergency at intervals not exceeding 15 months, but at least once each calendar year. In its request, Paiute Pipeline explained that partially operating these valves as required by the regulation could potentially cause valve failures and gas leakage. Paiute Pipeline will be locating, inspecting, and remediating suspect PBV trunnion mounted ball valves on the Paiute Pipeline. The intent is to provide Paiute Pipeline time to inspect, repair or replace the

valve cap screws on these critical valves. Therefore, the special permit will remain in effect only until the remediation of the valves is complete or until December 31, 2010, whichever occurs first. The relief from operating these valves other than in an emergency will further enhance public and operator safety while remediation of the valves is completed.

Public Notice:

On January 23, 2009, PHMSA posted a notice of this special permit request in the Federal Register 74 FR 4296. We did not receive any comments for or against this special permit request as a result of this notice. The request letter, Federal Register notice and all other pertinent documents are available for review in Docket No. PHMSA-2009-0100 in the Federal Docket Management System (FDMS) located on the Internet at www.Regulations.gov.

Analysis:

The pipeline safety regulations require the operator of each gas transmission pipeline to inspect and partially operate each transmission line valve that might be required during any emergency at intervals not exceeding 15 months, but at least once each calendar year; and to take prompt remedial action to correct any valve found inoperable, unless the operator designates an alternative valve under 49 CFR §§ 192.605 and 192.745. 49 CFR § 192.605 requires Paiute Pipeline to prepare and follow for each pipeline, a manual of written procedures for conducting operations and maintenance activities and for emergency response.

Paiute Pipeline will locate and remediate all PBV trunnion ball valves with time dependent defects in the valve cap screws that are located near the cap screw head. While this special permit applies to normal operations, the subject PBV trunnion mounted ball valve will be used in case of an emergency requiring pipeline shutdown in compliance with 49 CFR Part 192 requirements. After any required usage, each valve will be checked for leakage as soon as possible after the operation, and checked for leakage again the next day to confirm integrity. Paiute Pipeline will designate alternate valves to be operated in an emergency in the event one of the suspect PBV trunnion mounted ball valves fails to perform an adequate shutdown of the pipeline.

Paiute Pipeline discovered this problem with the PBV trunnion mounted ball valves after receiving a notice from P.B.V. USA, the valve manufacturer of PBV valves. Paiute Pipeline's

records indicate that the first PBV trunnion mounted ball valve was purchased for the Paiute Pipeline system in 1993. Paiute Pipeline has determined that a number of PBV trunnion mounted ball valves of various sizes are installed and are in buried service on the Paiute Pipeline system in Nevada. Paiute Pipeline has determined that the Paiute Pipeline operates in a similar environment to the valve that failed. The location and inspection of these ball valves will determine the specific cause of possible failures of the cap screws.

PHMSA's review, outside of Paiute Pipeline special permit request, has found that PBV trunnion mounted ball valve cap screw failures in the following operating conditions:

1. Cap screw failures have only been observed in high strength cap screws. Hardness values for failed cap screws were found to be Rockwell C (HRC) 40 or higher. Some cap screws with hardness in excess of HRC 40 did not exhibit failure. Cap screws that had hardness values of less than HRC 22 or Rockwell B-Scale (HRB) 100 did not exhibit failure.
2. Cap screw failures were limited to small diameter cap screws. With the exception of one cap screw failure, all failures occurred in 1/2-inch diameter cap screws. The exception was one case of failure in a 5/8-inch diameter cap screw. No failures have been reported in cap screws with greater than 5/8-inch diameter.
3. All failed cap screws came from pipeline ball valves that were buried and were electrically connected to a pipeline system that was being cathodically protected.
4. All failures were observed after long term exposure reportedly in the range of 10 years in service.
5. No evidence of corrosion or scale deposits with sulfur have been detected as would be expected if leakage of gas containing hydrogen sulfide had occurred.

Findings:

PHMSA finds that granting this special permit to Paiute Pipeline is not inconsistent with pipeline safety. Doing so will provide a level of safety equal to, or greater than, that which would be provided if the PBV trunnion mounted ball valves were partially operated as currently required by the pipeline regulations in §§ 192.605 and 192.745.

We do so because the special permit analysis shows the following:

1. Paiute Pipeline will be promptly locating, inspecting, and replacing the cap screws on PBV trunnion mounted ball valves that have time dependent defects which may cause fracture near the cap screw head.
2. Paiute Pipeline will complete the inspection, repair or replace of these defective ball valve cap screws not later than December 31, 2010.
3. While the subject ball valve cap screws are being inspected, repaired or replaced additional procedures for emergency valve maintenance will be implemented.

Completed in Washington DC on: OCT 16 2009