



Macpherson Oil Company
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SEP 19 2017

September 15, 2017

Associate Administrator
Office of Pipeline Safety, PHMSA
1200 New Jersey Avenue, East Building, 2nd Floor
Washington, DC 20590

RE: Petition for Reconsideration – Final Order (CPF No. 5-2016-0016)

Brief Statement of Complaint

Macpherson Oil Company (“MOC”) is asking for the Pipeline Hazardous Materials Safety Administration (“PHMSA”) to reconsider the requirements found in Final Order (CPF No. 5-2016-0016), specifically the section titled “Compliance Order 1(a)(i), (ii), (iii), and (iv).” MOC believes this section should be reconsidered because the requirements would create a disproportionate financial burden relative to any risk reduction gained by such requirements.

MOC believes additional facts and an alternative plan will provide PHMSA with the information needed to reconsider and modify its compliance order to be commensurate with the risk of pipeline.

Additional Facts or Arguments

Financial Burden:

The Round Mountain Field produces heavy oil. The primary method for oil recovery is thermal operations which is considered a tertiary recovery method, which is to say it's the most complicated and sensitive production method. Thermal operations require steam to reduce the viscosity of the oil so that the oil can be produced through a production well. Steam is created by heating water using natural gas steam generators. These generators rely exclusively on the natural gas from this pipeline. This heavy oil reservoir is very sensitive to loss of heat due to shutdowns, which would be required to fulfill the compliance orders. This shutdown would introduce risks and negatively impact reservoir behavior and well productivity.

As stated in our response, dated October 7th, 2016, MOC estimates the direct cost for such requirements to be \$1,200,000. Indirect costs would total an additional \$3,675,000.

- Perform requested work - \$1,200,000 (direct)
- Reduction in production - \$750,000 (indirect)
- 10 days without heat for oil processing - \$1,800,000 (indirect)
- Recovery time for the reservoir heat - \$1,125,000 (indirect)

MOC brings this to your attention to reiterate the severe financial burden that would be imposed on MOC, a small independent family owned company, by complying with the requirements of the Final Order. In addition, MOC also wants to provide insight as to why these costs, relative to the risk reduction outlined below, are disproportionate, and propose alternative methods to meet the intent of PHMSA's final order.

Risk Reduction:

The MOC pipeline is in a remote area of Kern County located approximately 13 miles north of Bakersfield California. The pipeline is entirely contained on private property. There is a single MOC structure located within the 660-foot buffer (192.5 Class 1 Location). This is a field control room and has approximately two employees on staff at any given time. There are no High Consequence Areas (192.903) using Method 1 or 2. The potential impact radius is 147 feet. The pipeline does not cross any public roads or highways (see attached map).

Qualified employees and contractors spend very little time near the pipeline system except to complete the required pipeline tasks such as annual valve maintenance, leak survey, ROW patrol, line markers, CP survey, Class Location/ HCA survey, bi-monthly rectifier readings, and the occasional dig requests.

Class Location and HCA analysis are critical in understanding the risk of the pipeline. As class location increases so do inspection and design/test requirements. For instance, the frequency of pipeline patrols, leak surveys and critical crossing inspections increase for higher class locations. The design factor (192.111) to determine design pressure decreases for higher class locations. The MAOP (192.619) determination imposes additional safety factors applied against a pressure test as the class location increases. An integrity management program (Subpart O) and assessment intervals are not required for pipelines that do not impact an HCA.

On April 8, 2016 PHMSA published Federal Register 81FR 20722 titled: "Pipeline Safety: Safety of Gas Transmission and Gathering Pipelines." The rule has not gone in to effect, however, MOC would like to point out that material verification was added as a new section to the code (192.607 Verification of Pipeline Material). The section of the code would have required operators to prepare a material documentation plan to verify that records documenting line pipe, fittings, valves, flanges, etc. are reliable, traceable, verifiable and complete. This new provision would only be applicable to pipelines located in an HCA or a Class 3 or 4 location. This section of the code would not be applicable to this pipeline.

There is a fundamental understanding that risk profiles for pipelines vary greatly. The code recognizes this based on the class location and HCA's. Even the new proposed gas rule recognizes that this line is low risk because the material verification section of the code would not apply. If this was a gathering line it would not be jurisdictional to PHMSA or subject to any of the codes.

In addition to the remote and isolated location of this pipeline MOC would like to point to other mitigation factors that address specific threats and demonstrate the fit-for-service of this pipeline given its location.

Pipeline Details -

Pipeline Specifications	
Year Constructed	1998
Diameter (in)	6.625
Wall Thickness (in)	0.280
Length (miles)	6.8
Pipe Grade	Grade B (35,000 psig)
MAOP/ NOP	984/754
Flange Rating	600
Coating	Pritec
MAOP as %SMYS	33
Class Location	1
HCA	None

Potential Threats -

- External Corrosion – An impressed current cathodic protection system has been active since the pipeline was installed. Bi-monthly rectifier readings and annual surveys have been completed and show that the system continues to function properly. The pipeline is coated using Pritec two-layer PE coating in a factory environment. NDT performed on both buried and exposed pipe indicate there is minimal corrosion. (see NDT reports attached)
- Internal Corrosion – The line transports commercial quality natural gas and is non-corrosive. NDT performed on both buried and exposed pipe indicate there is minimal corrosion. (see NDT reports attached)
- Stress Corrosion Cracking – Not a credible threat because it does not meet several of the criteria in ASME B31.8S Appendix A A3.3.
- Construction Defects – Prior start up the pipeline was hydrotested in accordance with Part 192 Subpart J. PHMSA FAQ-219 states “OPS considers a successful Subpart J pressure test to be sufficient to reveal any manufacturing and construction defects that could jeopardize pipeline integrity at operating pressures less than or equal to MAOP, as of the date of the pressure test. Any manufacturing and construction defects that survive the Subpart J pressure test are considered to be stable and not subject to failure, unless other threats adversely affect the stability of the residual manufacturing and construction defects.” ASME B31.8S Appendix A A5 does not require an reassessment interval unless there is a change in operating conditions such as uprating. There has been no change in operating conditions. (see attached hydrotest results)
- Manufacturing Defects - Prior to start up the pipeline was hydrotested in accordance with Part 192 Subpart J. PHMSA FAQ-219 states “OPS considers a successful Subpart J pressure test to be sufficient to reveal any manufacturing and construction defects that could jeopardize pipeline integrity at operating pressures less than or equal to MAOP, as of the date of the pressure test. Any manufacturing and construction defects that survive the Subpart J pressure test are considered to be stable and not subject to failure, unless other threats adversely affect the stability of the residual manufacturing and construction defects.” ASME B31.8S Appendix A A5 does not require an reassessment interval

unless there is a change in operating conditions such as uprating. There has been no change in operating conditions. (see attached hydrotest results)

- Equipment Failures – There have been no equipment failures.
- Third Party Damage – MOC has implemented a written damage prevention and public awareness program. Third party digs are infrequent given the pipeline location.
- Incorrect Operations – MOC has O&M procedures and Operator Qualified individuals performing covered tasks. The procedures are reviewed annually and operators maintain qualifications.
- Cyclic Fatigue - The pipeline is located in stable ground. Some erosion near the pipeline has occurred, however the pipeline is not exposed, and not a threat. Annual patrols are used to monitor any conditions. The pipeline has no suspensions.
- Weather Related or Outside Forces – This threat is minimal.

MOC believes that the construction and manufacturing defects are stable because the line successfully passed a hydrotest and has operated safely for almost 20 years. MOC is comfortable that the line will continue to operate safely given all the other mitigation actions MOC continues to have qualified individuals perform on the pipeline system. These items, coupled with the pipelines location, demonstrate that this pipeline is safe and poses an extremely low risk to the public or employees/ contractors. As such, the Compliance Order should and actions required should reflect this low risk and provide “other opportunities” to learn more about the pipelines continued safe operation without such an aggressive and costly approach.

MOC is prepared to execute Compliance Order Number 1 (Item 1) (b)(i), (ii) and Number 2 (Item 5) (a) and (b). However, MOC is asking for reconsideration on Compliance Order 1 (Item 1) (a)(i), (ii), (iii), and (iv).

MOC proposes the following:

1(a)(i) – MOC asks that this finding be modified. Given the location of the pipeline, original hydro-test, that exposure of the pipeline presents opportunities to damage the factory applied coating, and 20 years of safe operation this seems like an unnecessary and costly requirement. MOC proposes the following language:

“Destructive Testing- if a girth weld is replaced, as outlined below, ~~cut out at least one in-line girth weld and it shall be~~ destructively tested ~~it~~ in accordance with§ 192.225 to establish the strength of the weld. Any other methods proposed for determining the strength of the girth weld shall be approved by the PHMSA.”

1(a)(ii) – MOC asks that this be modified. MOC proposes the following language:

“Nondestructive Testing -write a nondestructive testing (NDT) procedure in accordance with § 192.243 to NDT girth welds. Excavate and NDT: ~~at least 40 girth welds equally spaced along the entire pipeline;~~ all tie-in girth welds made after the post-construction pressure testing in 1998; ~~and all known fabricated and station girth welds, and anytime a girth weld is exposed. Any other methods for determining acceptability of welds shall be approved by the PHMSA.”~~

This will ensure that piping located at the tie in points have been NDT tested, further reducing the risk profile of the pipeline.

(1)(a)(iii) – MOC asks that this be modified. MOC proposes the following language:

“Repair or replace all girth welds that fail the NDT. For every girth weld repaired or replaced, excavate and NDT one additional girth weld closest to the weld that failed the NDT.”

This strategy focuses on moving from the tie-in points toward the middle of the pipeline further reducing the risk profile of the pipeline.

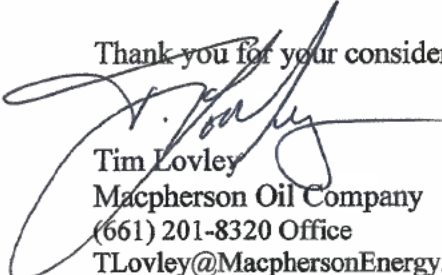
(1)(a)(iv) – MOC asks that this be modified. MOC proposes the following language:

“~~Each~~ segment of replacement pipe, if any, will be hydrotested in the shop ~~Hydrotest the entire pipeline in accordance with the requirements in Part 192 if more than three girth welds fail the NDT.~~”

This eliminates the need to fill the line with water and creating a potentially corrosive environment.

Again, MOC is asking that PHMSA reconsider the Compliance Order because the requirements would create a disproportionate financial burden relative to any risk reduction gained by such requirements. MOC believes the process outlined above provides for a pragmatic approach given the low risk of the pipeline and provides “opportunities” to learn more about the girth welds.

Thank you for your consideration.



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