

**Marathon Pipe Line LLC**

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April 8, 2011

U.S. Department of Transportation
Pipeline and Hazardous Materials Safety Administration
Mr. Chris Hoidal, Director Western Region
12300 W. Dakota Ave. Suite 110
Lakewood, CO 80228

Re: CPF No. 5-2010-5013 Final Order

Dear Mr. Hoidal:

Please find enclosed Marathon Pipe Line's (MPL) Design Basis Memorandum (DBM) in response to the above-referenced case, which was issued to MPL, dated February 18, 2011. The Final Order was issued following MPL's response to the Notice of Probable Violation (NOPV) and Proposed Compliance Order CPF No. 5-2010-5013 issued April 26, 2010 by the Pipeline and Hazardous Materials Safety Administration's (PHMSA) following the inspection of MPL's Red Butte Pipeline System in central and northwestern Wyoming in July 2009.

MPL believes the DBM is sufficient in addressing the actions requested by PHMSA for MPL to submit an engineering analysis. The following responses are to satisfy concerns PHMSA requested be addressed by the engineering analysis:

Concern #1: Whether the cavitation at Casper Station could affect the safe operation of the pipeline system.

Response #1: Depending on system delivery pressure and flowrate, MPL's Design Basis Memorandum analysis indicates cavitation could occur in the orifice plate during normal summer operations. However, this cavitation is minor and has not proven to be detrimental to the piping or equipment. Orifice plate cavitation will not occur under normal winter operating conditions. Additionally, the orifice plate protects the backpressure valve (BPV) from cavitation and improves the reliability of the BPV so the line is under pressure at all times, which improves MPL's mainline integrity monitoring and leak detection.

Concern #2: Whether potential long-term damage could occur as a result of cavitation.

Response #2: The minor cavitation that may be experienced in the orifice plate during summer operating condition has been determined to be acceptable as evidenced by the absence of damage in the orifice plate or downstream components using visual and non-destructive testing (NDT) inspection methods after 7 + years of operation.

Concern #3: Whether equipment or operational modifications are necessary for safe operation.

Response #3: MPL believes equipment or operational modifications are not necessary for safe operation due to the absence of damage in the orifice plate or downstream components.

The following information is to satisfy PHMSA's request that MPL maintain documentation of the safety improvement costs associated with fulfilling this compliance Order. Costs are reported in the following two categories as requested:

Category #1: Total costs associated with preparation/ revision of plans, procedures, studies and analyses.

Response: MPL's cost for studies and analysis was \$25,765.02. This included the visual and NDT inspection and the engineering analysis.

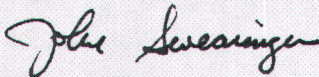
Category #2: Total cost associated with replacements, additions and other changes to pipeline infrastructure.

Response: There were no costs associated with replacements, additions, or any other changes to the pipeline system due to the fact no replacements, additions, or any other changes have been made to the pipeline infrastructure.

As always, your comments or suggestions for further improvement are always welcome.

MPL requests that if CPF No. 5-2010-5013 is made available on the PHMSA website, this reply be posted as well.

Sincerely,



John S. Swearingen
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cc: John D. Bradley
Charles D. Ellingsworth
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