



U.S. Department
of Transportation

**Pipeline and
Hazardous Materials Safety
Administration**

12300 W. Dakota Ave., Suite 110
Lakewood, CO 80228

**NOTICE OF PROBABLE VIOLATION
and
PROPOSED COMPLIANCE ORDER**

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

January 6, 2011

Mr. Jay Prudhomme
Vice President
Merit Energy Company
1327 Noel Road, Suite 500
Dallas, TX 75240

CPF 5-2011-6001

Dear Mr. Prudhomme:

From May 4 to May 5, 2010, a representative of the Pipeline and Hazardous Materials Safety Administration (PHMSA), pursuant to Chapter 601 of 49 United States Code, inspected your Bairoil CO₂ pipeline between Bairoil, Wyoming and ExxonMobil's Chute Creek processing plant south of Jeffery City, Wyoming.

As a result of the inspection, it appears that you have committed probable violations of the Pipeline Safety Regulations, Title 49, Code of Federal Regulations. The items inspected and the probable violations are:

1. **§195.310 Records.**
 - (b) **The record required by paragraph (a) of this section must include:**
 - (9) **Where elevation differences in the section under test exceed 100 feet (30 meters), a profile of the pipeline that shows the elevation and test sites over the entire length of the test section.**

During the inspection, Merit Energy (Merit) was unable to provide adequate pressure test records of their Bairoil CO₂ pipeline from the September 9, 1986 pressure test. Under 49 C.F.R §195.310(b) (9), an operator must maintain a record of each pressure test to include the elevation differences in the section under test exceed 100 feet. Pressure test documentation indicates that the Bairoil CO₂ pipeline was tested in one section; however, the hydrostatic test documentation did not include a profile of the pipeline that shows the elevation and test sites over the entire length of the test section, i.e. the elevation differences along this pipeline range between 6985 feet MSL (mean sea level) to 7575 feet MSL which exceeds a 100 feet elevation difference. An operator must retain adequate pressure testing records as a requirement of Subpart E of Part 195 for the life of the pipeline. Those records must include a profile of the pipeline that shows the elevation and test sites over the entire length of the test section when elevation differences in the section under test exceed 100 feet.

2. §195.404 Maps and Records.

(a) Each operator shall maintain current maps and records of its pipeline systems that include at least the following information;

(4) The diameter, grade, type and nominal wall thickness of all pipe.

During the inspection, Merit failed to maintain current maps of its Bairoil CO₂ pipeline that established the start and end points for the various wall thickness of their pipeline. Under 49 C.F.R §195.404(a) (4), an operator must maintain current maps and records of its pipeline systems that include the diameter, grade, type, and nominal wall thickness. Merit's O&M manual listed the diameter, grade, type and nominal wall thickness of their Bairoil CO₂ pipeline, i.e. the pipeline consists of 12.75 inch outside diameter, API 5L-X60, and wall thicknesses between 0.420 inch to 0.604 inch. Therefore, Merit did not maintain a current map of this pipeline that established where each pipe nominal wall thickness pipe had been installed. An operator must maintain a current map of its system that shows each pipe diameter, grade, type and pipe nominal wall thickness.

3. §195.403 Emergency Response Training.

(b) At the intervals not exceeding 15 months, but at least once each calendar year, each operator shall:

(1) Review with personnel their performance in meeting the objectives of the emergency response training program set forth in paragraph (a) of this section.

During the inspection, Merit was unable to provide any documentation to show a review with personnel their performance in meeting the objectives of their emergency response training program. Under 49 C.F.R §195.403(b) (1), an operator must review with personnel their performance of the emergency response training at least once each calendar year. Merit personnel stated that a review was occurred annually; however, they did not document those reviews. Prior to completion of this inspection, Merit did develop a formal review documentation process of their emergency response training which will be completed by their safety coordinator once each calendar year not to exceed 15 months. An operator must document to show that at intervals not exceeding every 15 months, but at least once each

calendar year, a review of each employee's performance in meeting the objectives of the operators emergency response training program.

4. §195.403 Emergency Response Training.

(c) Each operator shall require and verify that its supervisors maintain a thorough knowledge of that portion of the emergency response procedures established under 195.402 for which they are responsible to ensure compliance.

During the inspection, Merit was unable to provide any documentation for verifying each supervisor's knowledge of emergency response procedures. Under 49 C.F.R §195.403(c), an operator must verify that its supervisors maintain a thorough knowledge of their emergency response procedures. Merit personnel stated that verification of supervisor's knowledge of emergency response procedures was occurred annually; however, they did not document those verifications. Prior to completion of this inspection, Merit did develop a formal review documentation process of their supervisor's knowledge of emergency response procedures. An operator must require and verify that its supervisors maintain a thorough knowledge of the emergency response procedures for which they are responsible to ensure compliance.

5. §195.406 Maximum Operating Pressure.

(a) Except for surge pressures and other variations from normal operations, no operator may operate a pipeline at a pressure that exceeds any of the following:
(3) Eighty percent of the test pressure for any part of the pipeline which has been pressure tested under Subpart E of this part.

During the inspection, the Bairoil CO₂ pipeline's maximum operating pressure (MOP) of 2840 psig was greater than eighty percent of this pipeline's test pressure. Under 49 C.F.R §195.406(a)(3), no operator may operate a pipeline at a pressure that exceeds eighty percent of the test pressure for any part of the pipeline which has been tested under Subpart E, except for surge pressure and other variations from normal operations. Records for the Bairoil CO₂ pipeline show that the documented test pressure of 3550 psig did not take into account the elevation differences along its alignment. An original pressure test record in 1986 shows that the entire line was pressure tested at one time, and the testing apparatus and recorder were located at the Bairoil Recycling Plant at Station 0+00 at an elevation around 6985 feet MSL (mean sea level). A profile of this pipeline shows the high point in the line and subsequently the lowest pressure during the pressure test was at an elevation of about 7575 feet MSL at Station 570+00. Documentation shows the test pressure at the Bairoil plant was 3550 psig. With a consideration of elevation differences, a minimum test pressure on the line should have been 3294 psig, i.e. $3350 \text{ psig} - [(7575 \text{ feet} - 6985 \text{ feet}) \times .433 \text{ psig/foot}] = 3294 \text{ psig}$. Therefore, a correct MOP of the Bairoil CO₂ pipeline should be close to 80% of 3294 psig or 2635 psig. An operator cannot establish a pipeline maximum operating pressure and subsequently operate a pipeline at a pressure that is greater than eighty percent of the lowest test pressure for any part of the pipeline has been pressure tested under Subpart E, except for surge pressure and other variations from normal operations.

6. §195.440 Public Awareness.

(c) The operator must follow the general program recommendations, including baseline and supplemental requirements of API RP 1162, unless the operator provides justification in its program or procedural manual as to why compliance with all or certain provisions of the recommended practice is not practicable and not necessary for safety.

Merit's emergency responder public education communication activities are solely comprised of displays that they exhibit at local annual Wyoming Pipeline Association (WYPA) Emergency Responder meetings. Under 49 C.F.R §195.440(c), an operator must follow the general program recommendations of API RP 1162. During the inspection, Merit failed to follow the baseline and supplemental emergency official communication recommendations that are listed in Table 2.3 of API 1162. Merit personnel informed PHMSA that they do not give presentations that specifically address the unique hazards of their Bairoil CO₂ pipelines during these meetings, nor do they make any other liaison attempts with local emergency responders. Additionally, Merit personnel informed PHMSA that Merit has not provided written information to emergency responders along their pipeline's alignment to specifically address the unique hazards of the Bairoil CO₂ pipeline, and address how Merit would like responders to react to releases along this line. An operator must follow the baseline and supplemental requirements from API RP 1162 unless they provide justification why this would be impracticable or not necessary for safety.

7. §195.555 What are the qualifications for supervisors?

You must require and verify that supervisors maintain a thorough knowledge of that portion of the corrosion control procedures established under Sec. 195.402(c)(3) for which they are responsible for insuring compliance.

During the inspection, Merit did not require its corrosion control supervisors to maintain a thorough knowledge of that portion of corrosion control procedures for which they were responsible for insuring compliance. Under 49 C.F.R §195.555, an operator must verify that supervisors maintain a thorough knowledge of that portion of the corrosion control procedures. Interviews with Merit personnel during the review of cathodic protection records demonstrated that Merit's supervisory personnel did not have adequate knowledge of external corrosion control monitoring procedures. Merit relies solely on their contractor for all of their external corrosion control monitoring tasks, and it appears that Merit did not have any supervisors that are qualified to interpret monitoring and testing results to insure Merit is in compliance with Part 195. An operator must require and verify that supervisors maintain a thorough knowledge of the corrosion control procedures for which they are responsible for insuring compliance.

8. §195.589 What corrosion control information do I have to maintain?

(a) You must maintain current records or maps to show the location of--

(1) Cathodically protected pipelines;

(2) Cathodic protection facilities, including galvanic anodes, installed after January 28, 2002; and

(3) Neighboring structures bonded to cathodic protection systems.

During the inspection, Merit failed to maintain current maps or records to show the location of their Bairoil CO₂ pipeline's cathodic protection facilities, i.e. the test stations, bonds, rectifiers, ground beds, and galvanic anodes that were installed after 2002. Under 49 C.F.R §195.589(a), an operator must maintain current maps or records of their cathodic protection systems. Furthermore, Merit was unable to provide any documentation to show the locations of these cathodic protection facilities. An operator must maintain current maps or records to show the location of all of the facilities of their cathodic protection systems.

9. §195.589 What corrosion control information do I have to maintain?

(b) Records or maps showing a stated number of anodes, installed in a stated manner or spacing, need not show specific distances to each buried anode.

During the inspection, Merit had no maps or records to show the number of anodes that are installed in a stated manner or spacing on their Bairoil CO₂ pipeline. Under 49 C.F.R §195.589(b), an operator must maintain current maps or records of their anodes. An operator must maintain the maps or records showing the number of anodes installed at a location and how these anodes have been installed, in a stated manner or spacing.

Proposed Compliance Order

With respect to items 1, 2, 5, 7, 8, and 9 pursuant to 49 United States Code § 60118, the Pipeline and Hazardous Materials Safety Administration proposes to issue a Compliance Order to Merit Energy (Merit). Please refer to the *Proposed Compliance Order*, which is enclosed and made a part of this Notice.

Warning Items

With respect to items 3, 4, and 6 we have reviewed the circumstances and supporting documents involved in this case and have decided not to conduct additional enforcement action or penalty assessment proceedings at this time. We advise you to promptly correct these item(s). Be advised that failure to do so may result in Merit being subject to additional enforcement action.

Response to this Notice

Enclosed as part of this Notice is a document entitled *Response Options for Pipeline Operators in Compliance Proceedings*. Please refer to this document and note the response options. Be advised that all material you submit in response to this enforcement action is subject to being made publicly available. If you believe that any portion of your responsive material qualifies for confidential treatment under 5 U.S.C. 552(b), along with the complete original document you must provide a second copy of the document with the portions you believe qualify for confidential treatment redacted and an explanation of why you believe the redacted information qualifies for confidential treatment under 5 U.S.C. 552(b). If you do not respond within 30 days of receipt of this Notice, this constitutes a waiver of your right to contest the allegations in this

Notice and authorizes the Associate Administrator for Pipeline Safety to find facts as alleged in this Notice without further notice to you and to issue a Final Order.

In your correspondence on this matter, please refer to **CPF 5-2011-6001** and for each document you submit, please provide a copy in electronic format whenever possible.

Sincerely,



Chris Hoidal
Director, Western Region
Pipeline and Hazardous Materials Safety Administration

Enclosures: *Proposed Compliance Order*
Response Options for Pipeline Operators in Compliance Proceedings

cc: PHP-60 Compliance Registry
PHP-500 G. Davis (#128464)

PROPOSED COMPLIANCE ORDER

Pursuant to 49 United States Code § 60118, the Pipeline and Hazardous Materials Safety Administration (PHMSA) proposes to issue to Merit Energy (Merit) a Compliance Order incorporating the following remedial requirements to ensure the compliance of Merit with the pipeline safety regulations:

1. In regard to Item Number 1 of the Notice pertaining to Merit's Bairoil CO₂ pipeline hydrostatic test records for lacking a profile of the pipeline that shows the elevation and test site, Merit must develop a profile of the pipeline that shows the elevation over the entire length of the test pipeline and the location of the test apparatus site. Merit must ensure a copy of this profile is retained with the other pressure test documentation for the Bairoil CO₂ pipeline for the life of the pipeline. Merit must also submit a copy of this profile to PHMSA.
2. In regard to Item Number 2 of the Notice pertaining to Merit's failure to have maps depicting diameter, grade, type and nominal wall thickness of all pipes which makes up their Bairoil CO₂ pipeline, Merit must develop maps that show the locations of diameter, grade, type and nominal wall thickness of all pipes that make up their Bairoil CO₂ pipeline. Merit must submit a copy of these maps to PHMSA.
3. In regard to Item Number 5 of the Notice pertaining to Merit's failure to accurately determine the MOP of their Bairoil CO₂ pipeline, Merit must establish a correct MOP for their Bairoil CO₂ pipeline by using the test pressure at the highest point on that pipeline was subjected to during the 1986 pressure test. Merit must submit a copy of those MOP re-calculations to PHMSA.
4. In regard to Item Number 7 of the Notice pertaining to Merit did not verify supervisors have adequate knowledge of cathodic protection procedures, Merit must ensure that their supervisors who are responsible for cathodic protection have adequate knowledge of the Merit cathodic protection procedures. This includes adequate knowledge of CP monitoring criteria, bonds, rectifiers and general ability to interpret both bond and of rectifier readings. Merit must provide documentation to PHMSA pertaining to their corrosion control supervisors' knowledge of cathodic protection procedures for which they are responsible for insuring compliance.

5. In regard to Item Number 8 of the Notice pertaining to Merit's failure to have maps or records identifying the location of their Bairoil CO₂ pipeline's cathodic protection facilities. Merit must develop maps or records that accurately locate their pipeline's cathodic protection facilities including test stations, bonds, rectifiers, ground beds, and galvanic anodes installed after 2002. Merit must provide those developed maps or records to PHMSA.
6. In regard to Item Number 9 of the Notice pertaining to Merit's failure to have maps or records identifying the number of anodes installed in a stated manner or spacing on their Bairoil CO₂ pipeline. Merit must develop maps or records of the number of anodes installed in a stated manner or spacing on their pipeline. Merit must provide those developed maps or records to PHMSA.
7. Sixty (60) days after receipt of the Final Order related to this case Merit must complete and submit all of the above Proposed Compliance Order items.
8. Merit shall maintain documentation of the safety improvement costs associated with fulfilling this Compliance Order and submit the total to Chris Hoidal, Director, Western Region, Pipeline and Hazardous Materials Safety Administration. Costs shall be reported in two categories: 1) total cost associated with preparation/revision of plans, procedures, studies and analyses, and 2) total cost associated with replacements, additions and other changes to pipeline infrastructure.