



U.S. Department
of Transportation

**Pipeline and
Hazardous Materials Safety
Administration**

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

NOTICE OF AMENDMENT

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

February 16, 2007

Mr. Tod Flott
VP, Northern Division
Merit Energy Company
13727 Noel Road, Suite 500
Dallas, TX 75240-5240

SENT TO COMPLIANCE REGISTRY
Hardcopy Electronically
of Copies 1 / Date 2/16/07

CPF 5-2007-5010M

Dear Mr. Flott:

On October 10-13, 2006, a representative of the Pipeline and Hazardous Materials Safety Administration (PHMSA) pursuant to Chapter 601 of 49 United States Code inspected your procedures for Bairoil CO₂ Pipeline in Bairoil, Wyoming.

On the basis of the inspection, PHMSA has identified the apparent inadequacies found within Merit Energy Company's procedures and are described below:

1. **§195.402 Procedural manual for operations, maintenance, and emergencies.**
 - (a) **General. Each operator shall prepare and follow for each pipeline system a manual of written procedures for conducting normal operations and maintenance activities and handling abnormal operations and emergencies. This manual shall be reviewed at intervals not exceeding 15 months, but at least once each calendar year, and appropriate changes made as necessary to insure that the manual is effective. This manual shall be prepared before initial operations of a pipeline commence, and appropriate parts shall be kept at locations where operations and maintenance activities are conducted.**

- §195.408 Communications.**
 - (a) **Each operator must have a communication system to provide for the transmission of information needed for the safe operation of its pipeline system.**

At the time of the inspection, the operator did not have procedures requiring a communication system to provide for the transmission of information needed for the safe operation of the pipeline system.

2. §195.408 Communications.

(b) The communication system required by paragraph (a) of this section must, as a minimum, include means for:

(2) Receiving notices from operator personnel, the public, and public authorities of abnormal or emergency conditions and sending this information to appropriate personnel or government agencies for corrective action;

At the time of the inspection, the operator did not have procedures requiring the operator to receive notices from operator personnel, the public, and public authorities of abnormal or emergency conditions and to send this information to appropriate personnel or government agencies for corrective action.

3. §195.408 Communications.

(b) The communication system required by paragraph (a) of this section must, as a minimum, include means for:

(3) Conducting two-way vocal communication between a control center and the scene of abnormal operations and emergencies;

At the time of the inspection, the operator did not have procedures requiring the operator to have a communications system that allows conducting two-way vocal communication between a control center and the scene of abnormal operations and emergencies.

4. §195.408 Communications.

(b) The communication system required by paragraph (a) of this section must, as a minimum, include means for:

(4) Providing communication with fire, police, and other public officials during emergency conditions, including a natural disaster.

At the time of the inspection, the operator did not have procedures requiring the operator to provide communication with fire, police, and other public officials during emergency conditions, including natural disasters.

5. §195.420 Valve maintenance.

(a) Each operator shall maintain each valve that is necessary for the safe operation of its pipeline systems in good working order at all times.

At the time of the inspection, the operator did not have procedures requiring each valve that is necessary for the safe operation of its pipeline systems to be maintained in good working order at all times.

6. §195.420 Valve maintenance.

(b) Each operator shall, at intervals not exceeding 7 1/2 months, but at least twice each calendar year, inspect each mainline valve to determine that it is functioning properly.

At the time of the inspection, the operator did not have procedures requiring valve inspection intervals not exceeding 7 1/2 months, but at least twice each calendar year, and that each mainline valve be inspected to determine that it is functioning properly.

7. §195.420 Valve maintenance.

(b) Each operator shall provide protection for each valve from unauthorized operation and from vandalism.

At the time of the inspection, the operator did not have procedures requiring protection for each valve from unauthorized operation and from vandalism.

8. §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.

At the time of the inspection, the operator did not have procedures requiring supervisors to 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.

9. §195.567 Which pipelines must have test leads and what must I do to install and maintain the leads?

(c) Maintenance. You must maintain the test lead wires in a condition that enables you to obtain electrical measurements to determine whether cathodic protection complies with Sec. 195.571.

At the time of the inspection, the operator did not have procedures requiring the company to maintain the test lead wires.

10. §195.569 Do I have to examine exposed portions of buried pipelines?

Whenever you have knowledge that any portion of a buried pipeline is exposed, you must examine the exposed portion for evidence of external corrosion if the pipe is bare, or if the coating is deteriorated. If you find external corrosion requiring corrective action under Sec. 195.585, you must investigate circumferentially and longitudinally beyond the exposed portion (by visual examination, indirect method, or both) to determine whether additional corrosion requiring remedial action exists in the vicinity of the exposed portion.

At the time of the inspection, the operator did not have procedures requiring examination of exposed portions of a buried pipeline.

11. §195.571 What criteria must I use to determine the adequacy of cathodic protection?

Cathodic protection required by this subpart must comply with one or more of the applicable criteria and other considerations for cathodic protection contained in paragraphs 6.2 and 6.3 of NACE Standard RP0169-96 (incorporated by reference, see Sec. 195.3).

At the time of the inspection, the operator did not have procedures requiring the pipeline's cathodic protection comply with one or more of the applicable criteria and other considerations for cathodic protection contained in paragraphs 6.2 and 6.3 of NACE Standard RP0169-96.

12. §195.573 What must I do to monitor external corrosion control?

a) Protected pipelines. You must do the following to determine whether cathodic protection required by this subpart complies with Sec. 195.571:

(2) Identify before December 29, 2003 or not more than 2 years after cathodic protection is installed, whichever comes later, the circumstances in which a close-interval survey or comparable technology is practicable and necessary to accomplish the objectives of paragraph 10.1.1.3 of NACE Standard RP0169-96 (incorporated by reference, see Sec. 195.3).

At the time of the inspection, the operator did not have procedures requiring assessment of the circumstances in which a close-interval survey or comparable technology is practicable and necessary to accomplish the objectives of paragraph 10.1.1.3 of NACE Standard RP0169-96.

13. §195.573 What must I do to monitor external corrosion control?

c) Rectifiers and other devices. You must electrically check for proper performance each device in the first column at the frequency stated in the second column.

Device	Check frequency
Rectifier.....	At least six times each calendar year, but with intervals not exceeding 2 ½ months
Reverse current switch	
Diode	
Interference bond whose failure would jeopardize structural protection	
Other interference bond	At least once each calendar year, but with intervals not exceeding 15 months.

At the time of the inspection, the operator did not have procedures requiring interference bond whose failure would jeopardize structural protection (critical bonds) be inspected six times each calendar year, but at intervals not exceeding 2 ½ months.

14. §195.573 What must I do to monitor external corrosion control?

(e) Corrective action. You must correct any identified deficiency in corrosion control as required by Sec. 195.401(b). However, if the deficiency involves a pipeline in an integrity management program under Sec. 195.452, you must correct the deficiency as required by Sec. 195.452(h).

At the time of the inspection, the operator did not have procedures requiring the operator to correct any identified deficiency in corrosion control.

15. §195.575 Which facilities must I electrically isolate and what inspections, tests, and safeguards are required?

(a) You must electrically isolate each buried or submerged pipeline from other metallic structures, unless you electrically interconnect and cathodically protect the pipeline and the other structures as a single unit.

(b) You must install one or more insulating devices where electrical isolation of a portion of a pipeline is necessary to facilitate the application of corrosion control.

(c) You must inspect and electrically test each electrical isolation to assure the isolation is adequate.

(d) If you install an insulating device in an area where a combustible atmosphere is reasonable to foresee, you must take precautions to prevent arcing.

(e) If a pipeline is in close proximity to electrical transmission tower footings, ground cables, or counterpoise, or in other areas where it is reasonable to foresee fault currents or an unusual risk of lightning, you must protect the pipeline against damage from fault currents or lightning and take protective measures at insulating devices.

At the time of the inspection, the operator did not have procedures requiring electrical isolation of applicable pipeline facilities and the inspections, tests, and safeguards required to insure electrical isolation of the pipeline.

16. §195.577 What must I do to alleviate interference currents?

(a) For pipelines exposed to stray currents, you must have a program to identify, test for, and minimize the detrimental effects of such currents.

(b) You must design and install each impressed current or galvanic anode system to minimize any adverse effects on existing adjacent metallic structures.

At the time of the inspection, the operator did not have procedures for alleviating interference currents.

17. §195.579 What must I do to mitigate internal corrosion?

(a) General. If you transport any hazardous liquid or carbon dioxide that would corrode the pipeline, you must investigate the corrosive effect of the hazardous liquid or carbon dioxide on the pipeline and take adequate steps to mitigate internal corrosion.

At the time of the inspection, the operator did not have procedures to investigate the corrosive effect of carbon dioxide on the pipeline and to take adequate steps to mitigate any internal corrosion discovered.

18. §195.579 What must I do to mitigate internal corrosion?

(c) Removing pipe. Whenever you remove pipe from a pipeline, you must inspect the internal surface of the pipe for evidence of corrosion. If you find internal corrosion requiring corrective action under Sec. 195.585, you must investigate circumferentially and longitudinally beyond the removed pipe (by visual examination, indirect method, or both) to determine whether additional corrosion requiring remedial action exists in the vicinity of the removed pipe.

At the time of the inspection, the operator did not have procedures requiring the inspection of the internal surface for evidence of corrosion whenever pipe is removed from a pipeline.

19. §195.581 Which pipelines must I protect against atmospheric corrosion and what coating material may I use?

(a) You must clean and coat each pipeline or portion of pipeline that is exposed to the atmosphere, except pipelines under paragraph (c) of this section.

(b) Coating material must be suitable for the prevention of atmospheric corrosion.

(c) Except portions of pipelines in offshore splash zones or soil-to-air interfaces, you need not protect against atmospheric corrosion any pipeline for which you demonstrate by test, investigation, or experience appropriate to the environment of the pipeline that corrosion will-

(1) Only be a light surface oxide; or

(2) Not affect the safe operation of the pipeline before the next scheduled inspection.

At the time of the inspection, the operator did not have procedures stating the criteria to identify which pipelines will be protected against atmospheric corrosion and the coating material to be used.

20. §195.585 What must I do to correct corroded pipe?

(a) General corrosion. If you find pipe so generally corroded that the remaining wall thickness is less than that required for the maximum operating pressure of the pipeline, you must replace the pipe. However, you need not replace the pipe if you-

(1) Reduce the maximum operating pressure commensurate with the strength of the pipe needed for serviceability based on actual remaining wall thickness; or

(2) Repair the pipe by a method that reliable engineering tests and analyses show can permanently restore the serviceability of the pipe.

At the time of the inspection, the operator did not have procedures outlining the action to be taken to correct generally corroded pipe.

21. §195.585 What must I do to correct corroded pipe?

(b) Localized corrosion pitting. If you find pipe that has localized corrosion pitting to a degree that leakage might result, you must replace or repair the pipe, unless you reduce the maximum operating pressure commensurate with the strength of the pipe based on actual remaining wall thickness in the pits.

At the time of the inspection, the operator did not have procedures outlining the action to be taken to correct pipe with localized corrosion.

22. §195.587 What methods are available to determine the strength of corroded pipe?

Under Sec. 195.585, you may use the procedure in ASME B31G, "Manual for Determining the Remaining Strength of Corroded Pipelines," or the procedure developed by AGA/Battelle, "A Modified Criterion for Evaluating the Remaining Strength of Corroded Pipe (with RSTRENG disk)," to determine the strength of corroded pipe based on actual remaining wall thickness. These procedures apply to corroded regions that do not penetrate the pipe wall, subject to the limitations set out in the respective procedures.

At the time of the inspection, the operator did not have procedures to determine the strength of corroded pipe.

24. §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.
(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.
(c) You must maintain a record of each analysis, check, demonstration, examination, inspection, investigation, review, survey, and test required by this subpart in sufficient detail to demonstrate the adequacy of corrosion control measures or that corrosion requiring control measures does not exist. You must retain these records for at least 5 years, except that records related to Secs. 195.569, 195.573(a) and (b), and 195.579(b)(3) and (c) must be retained for as long as the pipeline remains in service.

At the time of the inspection, the operator did not have procedures outlining the retention of corrosion control information and records.

Response to this Notice

This Notice is provided pursuant to 49 C.F.R. § 190.237. Enclosed as part of this Notice is a document entitled *Response Options for Pipeline Operators in Compliance Proceedings*. Please refer to the Notice of Amendment portion of this document and note the response options. Failure to respond within 30 days of receipt of this Notice will be deemed a waiver of your right to contest the allegations set forth above and will authorize the Associate Administrator for Pipeline Safety, without further notice, to find facts as alleged in this Notice and to issue an Order Directing Amendment.

If, after opportunity for a hearing, your plans or procedures are found inadequate as alleged in this Notice, you may be ordered to amend your plans or procedures to correct the inadequacies (49 C.F.R. § 190.237). If you are not contesting this Notice, we propose that you submit your amended procedures to my office within 30 days of receipt of this Notice. This period may be extended by written request for good cause. Once the inadequacies identified herein have been addressed in your amended procedures, this enforcement action will be closed.

In correspondence concerning this matter, please refer to **CPF 5-2007-5010M** 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

Enclosure: *Response Options for Pipeline Operators in Compliance Proceedings*

cc: PHP-60 Compliance Registry
PHP-500 B. Brown (# 116814)