



U.S. Department
of Transportation

**Pipeline and
Hazardous Materials Safety
Administration**

233 Peachtree Street Ste. 600
Atlanta, GA 30303

NOTICE OF AMENDMENT

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

May 2, 2007

Mr. John Mollenkopf
Senior Vice President and Chief Operations Officer
MarkWest Hydrocarbon, Inc.
1515 Arapahoe Street, Tower 2, Suite 700
Denver, CO 80202

CPF 2-2007-5004M

Dear Mr. Mollenkopf:

Between December 5 and December 9, 2005, a representative of the Pipeline and Hazardous Materials Safety Administration (PHMSA) pursuant to Chapter 601 of 49 United States Code inspected MarkWest Hydrocarbon, Inc. (MarkWest) procedures for operation and maintenance in Kenova, West Virginia.

On the basis of the inspection, PHMSA has identified the apparent inadequacies found within MarkWest's plans or procedures, as 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. . . .

§195.214 Welding procedures.

(a) Welding must be performed by a qualified welder in accordance with welding procedures qualified under Section 5 of API 1104 or Section IX of the ASME Boiler and Pressure Vessel Code (incorporated by reference, see § 195.3) . The quality of the test welds used to qualify the welding procedure shall be determined by destructive testing.

A. MarkWest welding procedures are incorrect. *Operations, Maintenance, and Emergencies Manual* (OM&E Manual) Section 6.5 references Section 2 of API 1104, instead of Section 5. It is also noted that OM&E Manual Section 6.5 similarly incorrectly references other sections of API 1104. See §§ 195.222(a), 195.234(b), and 195.230 to correct these inadequacies.

§195.310 Records.

(a) A record must be made of each pressure test required by this subpart, and the record of the latest test must be retained as long as the facility tested is in use.

**(b) The record required by paragraph (a) of this section must include. . .
... (10) Temperature of the test medium or pipe during the test period.**

B. OM&E Manual Section 6.6 *Hydrostatic Test Requirements* does not require the temperature of the test medium or pipe to be recorded during the test period.

2. §195.402 Procedural manual for operations, maintenance, and emergencies.

. . . (c) Maintenance and normal operations. The manual required by paragraph (a) of this section must include procedures for the following to provide safety during maintenance and normal operations:

. . . (10) Abandoning pipeline facilities, including safe disconnection from an operating pipeline system, purging of combustibles, and sealing abandoned facilities left in place to minimize safety and environmental hazards. For each abandoned offshore pipeline facility or each abandoned onshore pipeline facility that crosses over, under or through commercially navigable waterways the last operator of that facility must file a report upon abandonment of that facility in accordance with §195.59 of this part.

OM&E Manual Section 7.5 *Abandonment or Deactivation of Facilities* and Form 102 *MarkWest Abandonment or Deactivation of Facilities* are inadequate in that they do not differentiate between *abandonment* and *deactivation*. *Deactivation* is not defined and procedures do not specify the conditions under which operation and/or maintenance requirements, such as leak surveys, cathodic protection, public awareness programs, etc., can be terminated on *deactivated* pipelines.

3. §195.402 Procedural manual for operations, maintenance, and emergencies.

. . . (c) Maintenance and normal operations. The manual required by paragraph (a) of this section must include procedures for the following to provide safety during maintenance and normal operations:

. . . (13) Periodically reviewing the work done by operator personnel to determine the effectiveness of the procedures used in normal operation and maintenance and taking corrective action where deficiencies are found.

MarkWest procedures do not address the requirement to determine the effectiveness of procedures, as required of §195.402(c)(13). OM&E Manual Section 7.9 *Training* conveys the following.

Once per year and at intervals not to exceed fifteen months, MarkWest shall evaluate . . . the program's effectiveness in achieving its objectives by reviewing personnel performance. Make any appropriate changes to the training program as necessary to ensure its effectiveness.

4. **§195.402 Procedural manual for operations, maintenance, and emergencies.**

... (e) *Emergencies.* The manual required by paragraph (a) of this section must include procedures for the following to provide safety when an emergency condition occurs;

... (3) **Having personnel, equipment, instruments, tools, and material available as needed at the scene of an emergency.**

MarkWest procedures do not require personnel to have hand tools and flame retardant clothing available at the scene of an emergency. These items are necessary, based on conversation with MarkWest employees.

5. **§195.402 Procedural manual for operations, maintenance, and emergencies.**

... (e) *Emergencies.* The manual required by paragraph (a) of this section must include procedures for the following to provide safety when an emergency condition occurs;

... (8) **In the case of failure of a pipeline system transporting a highly volatile liquid, use of appropriate instruments to assess the extent and coverage of the vapor cloud and determine the hazardous areas.**

MarkWest procedures do not adequately address the requirement to assess the extent and coverage of a vapor cloud and determine the hazardous areas. OM&E Manual Section 5.1.5 (b) requires the use of detection instruments to determine the concentration of HVL vapors in the area, but does not provide adequate details on how this will be done. MarkWest procedures does not address how to determine the potential cloud location, size, dispersion, and movement so that a monitoring plan with instruments can be developed and implemented to identify the cloud coverage and hazard areas. Use of information such as terrain elevations, underground drainage systems, weather and wind information, spill volume, and length of time since release are not included in the procedures. The number of available detection instruments and personnel should reflect the requirements of the plan. Below is an excerpt from OM&E Manual Section 5.1.5 (b).

A combustible gas indicator or "flame ionization gas detector" shall be used by a qualified MarkWest employee to determine the concentration of HVL vapors in the area. In the instance where flammable highly volatile liquids are present, the supervisor shall use an "explosimeter" to determine the extent and coverage of the vapor cloud and determine the hazardous areas.

6. **§195.402 Procedural manual for operations, maintenance, and emergencies.**

... (c) *Maintenance and normal operations.* The manual required by paragraph (a) of this section must include procedures for the following to provide safety during maintenance and normal operations:

... (3) Operating, maintaining, and repairing the pipeline system in accordance with each of the requirements of this subpart and subpart H of this part.

§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 ...

A. The Kenova cell phone number is not listed on the Kenova emergency call list (OM&E Manual Section 11.2.2). The number was recommended to be distributed in a 2004 Abnormal Condition Review.

§195.426 Scraper and sphere facilities

No operator may use a launcher or receiver that is not equipped with a relief device capable of safely relieving pressure in the barrel before insertion or removal of scrapers or spheres. The operator must use a suitable device to indicate that pressure has been relieved in the barrel or must provide a means to prevent insertion or removal of scrapers or spheres if pressure has not been relieved in the barrel.

B. MarkWest procedures do not adequately address the requirements of §195.426, as indicated in the following excerpt from OM&E Manual Section 7.11. The excerpt only applies to launchers and receivers with vent valves, whereas §195.426 applies to all launchers and receivers. Also, allowing personnel to monitor the vent valve for audible and visual indications to insure the pressure has been relieved before opening the barrel to install or remove scrapers or spheres does not satisfy the requirement to use a suitable device, such as a pressure gauge, to indicate that pressure has been relieved.

For pipelines having scraper and sphere launching and receiving facilities with vent valves to depressurize the barrel, operators shall either monitor the vent valve for audible and visual indications, or install and observe pressure readings on a pressure gauge, to insure the pressure has been relieved before opening the barrel to install or remove scrapers or spheres.

§195.430 Firefighting equipment.

Each operator shall maintain adequate firefighting equipment at each pump station and breakout tank area. The equipment must be—

- (a) In proper operating condition at all times;
 - (b) Plainly marked so that its identity as firefighting equipment is clear;
- and
- (c) Located so that it is easily accessible during a fire.

C. MarkWest procedures do not require adequate fire fighting equipment to be maintained at Kenova pump station, as required of 195.430.

§195.444 CPM leak detection

Each computational pipeline monitoring (CPM) leak detection system installed on a hazardous liquid pipeline transporting liquid in single phase (without gas in the liquid) must comply with API 1130 in operating, maintaining, testing, record keeping, and dispatcher training of the system.

D. MarkWest procedures are not adequately descriptive. OM&E Manual Section 6.1 mimics the regulations, does not convey that MarkWest's recently installed SCADA system is a CPM system, and does not state the applicable requirements of the referenced section of API 1130. Excerpt from OM&E Manual Section 6.11 is listed below.

This section applies to each hazardous liquid pipeline transporting liquid in single phase (without gas in the liquid). On such systems, each new computational pipeline monitoring (CPM) leak detection system and each replaced component of an existing CPM system shall comply with Section 4.2 of API 1130 in its design and with any other design criteria addressed in API 1130 for components of the CPM leak detection system.

§195.559 What coating material may I use for external corrosion control?

Coating material for external corrosion control under §195.557 must –

- (a) Be designed to mitigate corrosion of the buried or submerged pipeline;**
- (b) Have sufficient adhesion to the metal surface to prevent under film migration of moisture;**
- (c) Be sufficiently ductile to resist cracking;**
- (d) Have enough strength to resist damage due to handling and soil stress;**
- (e) Support any supplemental cathodic protection; and**
- (f) If the coating is an insulating type, have low moisture absorption and provide high electrical resistance.**

E. External protective coating procedures (OM&E Manual Sections 6.4.7 and 9.3) mimic the regulations, are very general, and do not provide a list of approved coating products and stated applications and restrictions. OM&E Manual Section 9.3 allows for coatings to be . . . *such as "thin film epoxy", TGF-3, or any other acceptable coating. . . . Joints, fittings, and tie-ins shall be coated with materials compatible with the coating on the pipe."*

§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 §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 §195.3).

F. MarkWest procedures do not convey 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. For protected pipelines, OM&E Manual Section 9.2.2 indicates the objectives of NACE Standard RP0169-96 §10.1.1.3 are to be met not more than two years after cathodic protection is installed. No applicable identified circumstances are found in the procedures.

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

... (b) *Unprotected pipe.* You must reevaluate your unprotected buried or submerged pipe and cathodically protect the pipe in areas in which active corrosion is found, as follows:

(1) Determine the areas of active corrosion by electrical survey, or where an electrical survey is impractical, by other means that include review and analysis of leak repair and inspection records, corrosion monitoring records, exposed pipe inspection records, and the pipeline environment.

Selected definitions from **§195.553 What special definitions apply to this subpart?**

Active corrosion means continuing corrosion which, unless controlled, could result in a condition that is detrimental to public safety or the environment.

Electrical survey means a series of closely spaced pipe-to-soil readings over a pipeline that are subsequently analyzed to identify locations where a corrosive current is leaving the pipeline.

G. MarkWest procedures are not specific in how MarkWest determines areas of active corrosion. Procedures do not convey specific criteria used in determining the areas where active corrosion, unless controlled, could result in a condition that is detrimental to public safety. The procedures convey that consideration should be given to those areas near people, homes, buildings, road crossings, and pipeline operating pressures, and that boundaries of Active Corrosion Zones will be determined; however, no specific criteria was found as to how these areas are established.

Excerpts from OM&E Manual Section 3.1 *Definitions*

Active Corrosion – Continuing corrosion, which could, unless controlled, result in a condition that is detrimental to public safety. Consideration should be given to those areas near people, homes, buildings, road crossings, and pipeline operating pressures.

Active Corrosion Zone – An area where the public could be exposed to hazards caused by active corrosion. Boundaries of other “Active Corrosion Zones” will be determined by an Engineering Services Pipeline/Corrosion/Pipeline Safety Engineer. This method will not apply to pipelines under cathodic protection.

§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 §195.401(b)

§195.401 General requirements.

(b) Whenever an operator discovers any condition that could adversely affect the safe operation of its pipeline system, it shall correct it within a reasonable time. . . .

H. MarkWest procedures do not convey the time allowed to correct a condition (that could adversely affect the safe operation of the pipeline) discovered while performing annual corrosion monitoring surveys. OM&E Manual Section 9.12.1 conveys: *If adequate protection is not indicated, corrective steps shall be taken to restore the structure to the proper degree of protection.* Procedures do not address how much time is allowed to correct the condition.

7. **§195.505 Qualification program**

Each operator shall have and follow a written qualification program. The program shall include provisions to:

... (b) Ensure through evaluation that individuals performing covered tasks are qualified;

§195.509 General

... (e) After December 16, 2004, observation of on-the-job performance may not be used as the sole method of evaluation.

A. MarkWest's Operator Qualification Program (rev. January, 2005) does not include provisions to ensure through evaluation that individuals performing covered tasks are qualified. The program does not convey that after December 16, 2004, observation of on-the-job performance may not be used as the sole method of evaluation.

... (h) After December 16, 2004, provide training, as appropriate, to ensure that individuals performing covered tasks have the necessary knowledge and skills to perform the tasks in a manner that ensures the safe operation of pipeline facilities

B. MarkWest's Operator Qualification Program (rev. January, 2005) does not include provisions for training, as appropriate, as required of §195.505(h).

... (i) After December 16, 2004, notify the Administrator or a state agency participating under 49 U.S.C. Chapter 601 if the operator significantly modifies the program after the Administrator or state agency has verified that it complies with this section.

C. MarkWest's Operator Qualification Program (rev. January, 2005) does not include provisions to notify the Administrator or a state agency as required of §195.505(i).

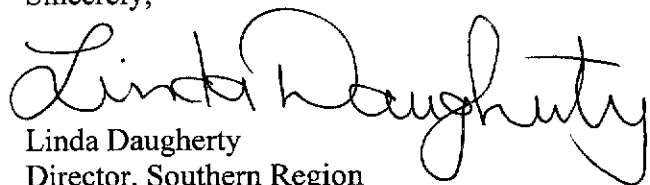
Response to this Notice

This Notice is provided pursuant to 49 U.S.C. § 60108(a) and 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 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.

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 60 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 2-2007-5004M** and, for each document you submit, please provide a copy in electronic format whenever possible.

Sincerely,



Linda Daugherty
Director, Southern Region
Pipeline and Hazardous Materials Safety Administration

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