



U.S. Department
of Transportation

**Pipeline and
Hazardous Materials Safety
Administration**

233 Peachtree Street Ste. 600
Atlanta, GA 30303

**NOTICE OF PROBABLE VIOLATION
AND
PROPOSED CIVIL PENALTY**

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

June 15, 2006

Ms. Diane L. Prier
President
Equitable Production Company
225 North Shore Drive
Pittsburgh, PA 15212

Mr. David L. Young
Senior Vice President
MarkWest Hydrocarbon, Inc.
155 Inverness Drive West, Suite 200
Englewood, CO 80112-5000

CPF No. 2-2006-5001

Dear Ms. Prier and Mr. Young:

From November 8 to December 17, 2004, representatives of the Pipeline and Hazardous Materials Safety Administration (PHMSA), pursuant to Chapter 601 of 49 United States Code, conducted an inspection of the November 8, 2004, MarkWest Hydrocarbon Inc. pipeline accident in the Rolling Acres subdivision at Ivel, Kentucky. The affected pipeline section traversing between the Maytown liquids extraction plant near Langley, KY and Ranger Junction near Ranger, WV, is hereinafter referred to as the MarkWest Pipeline. The affected pipeline is owned by Equitable Production Company (Equitable) and operated by MarkWest Hydrocarbon Inc. (MarkWest). MarkWest and Equitable are hereinafter referred to jointly as *Companies*.

As a result of the inspection, it appears that you have committed probable violations as noted below of pipeline safety regulations, Title 49, Code of Federal Regulations, Part 195. The items inspected and the probable violations are:

1. **§195.401 General requirements [1981, 1986 ed.]**

(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. However, if the condition is of such a nature that it presents an immediate hazard to persons or property, the operator may not operate the affected part of the system until it has corrected the unsafe condition.

195.414 Cathodic protection

(b) Each operator shall electrically inspect each bare pipeline before April 1, 1975 to determine any areas in which active corrosion is taking place In any areas where active corrosion is found, the operator shall provide cathodic protection [1981 and 1986 ed.]

195.416 External corrosion control

(d) Each operator shall, at intervals not exceeding 5 years, electrically inspect the bare pipe in its pipeline system that is not cathodically protected and must study leak records for that pipe to determine if additional protection is needed. [1981 and 1986 ed.]

Companies did not correct discovered conditions in 1982 and 1987 that could adversely affect the safe operation of the pipeline within a reasonable time as required of § 195.401(b), as follows.

A. Additional cathodic protection was not provided subsequent to discovery of an indicated anodic condition on bare pipe during an electrical survey performed in 1982. Although records indicate that a sacrificial anode was required at survey station 43+80, records also indicate that the anode was not installed because the line was cased. Evidence that the pipe was encased in the vicinity of station 43+80 in 1982 was not found. No evidence of an anode was found in this area when the pipe was excavated in 2005. This condition has been continuous and ongoing.

B. Additional cathodic protection was not provided subsequent to a 1987 electrical survey of bare pipe at the survey-indicated station 98+60, identified as "centerline of concrete driveway spot #2." The survey indicated an anodic condition existed at spot #2. No evidence of an anode was found at or near the driveway during post-accident pipe excavations, a condition that has been continuous and ongoing. The November 8, 2004 pipe failure occurred under the referenced driveway.

2. **§195.440 Public education [in effect on 11/08/04]**

Each operator shall establish a continuing educational program to enable the public, appropriate government organizations and persons engaged in excavation-related activities to recognize a hazardous liquid or a carbon dioxide pipeline emergency and to report it to the operator or the fire, police, or other appropriate public officials. The program must be conducted in English and in other

languages commonly understood by a significant number and concentration of non-English speaking population in the operator's operating areas.

Companies' public education program was not adequately established, in that the program did not enable the public in the pipeline area to recognize a hazardous liquid pipeline emergency and to report it to the operator or the fire, police, or other appropriate public officials. Although *Operations, Maintenance and Emergencies Manual* (OM&E Manual) procedure 7.6 *Public Education* conveys that such a program shall be established, specific educational material targeted to the public does not include information on how the public can recognize and report a hazardous liquid pipeline emergency. Residents in the immediate area of the pipeline who observed liquid spewing out of the ground and flowing across the street during the initial phase of the November 8, 2004 pipeline accident did not recognize that a pipeline emergency was occurring. Immediate recognition and reporting of the observed liquid release as a hazardous liquid pipeline emergency could have prompted an immediate evacuation prior to ignition, thus possibly preventing or reducing injuries. Immediate reporting of the emergency also could have reduced the amount of liquids released. The fact that residents in the area of the incident lacked knowledge constituted a potential threat to the public safety.

3. §195.410 Line markers.

(a) Except as provided in paragraph (b) of this section, each operator shall place and maintain line markers over each buried pipeline in accordance with the following:

(1) Markers must be located at each public road crossing, at each railroad crossing, and in sufficient number along the remainder of each buried line so that its location is accurately known. . . .

Companies did not place and maintain line markers over the buried 4" MarkWest Pipeline where it crosses Mockingbird Lane in Rolling Acres Subdivision, as required of §195.410(a)(1). No markers were found at this crossing on the day after the accident (November 9, 2004).

4. §195.52 Telephonic notice of certain accidents.

(a) At the earliest practicable moment following discovery of a release of the hazardous liquid or carbon dioxide transported resulting in an event described in §195.50, the operator of the system shall give notice, in accordance with paragraph (b) of this section, of any failure that:

(1) Caused a death or a personal injury requiring hospitalization;

(2) Resulted in either a fire or explosion not intentionally set by the operator;

(3) Caused estimated property damage, including cost of cleanup and recovery, value of lost product, and damage to the property of the operator or others, or both, exceeding \$50,000;

(4) Resulted in pollution of any stream, river, lake, reservoir, or other similar body of water that violated applicable water quality standards, caused a discoloration of

the surface of the water or adjoining shoreline, or deposited a sludge or emulsion beneath the surface of the water or upon adjoining shorelines; or

(5) In the judgment of the operator was significant even though it did not meet the criteria of any other paragraph of this section.

(b) Reports made under paragraph (a) of this section are made by telephone to 800-424-8802 (in Washington, DC: 267-2675) and must include the following information:

(1) Name and address of the operator.

(2) Name and telephone number of the reporter.

(3) The location of the failure.

(4) The time of the failure.

(5) The fatalities and personal injuries, if any.

(6) All other significant facts known by the operator that are relevant to the cause of the failure or extent of the damages.

§195.50 Reporting accidents [as referenced in 195.52(a)].

An accident report is required for each failure in a pipeline system subject to this part in which there is a release of the hazardous liquid or carbon dioxide transported resulting in any of the following: (a) Explosion or fire not intentionally set by the operator

Companies did not give notice at the earliest practicable moment following discovery of the hazardous liquid release from the 4" MarkWest Pipeline in Rolling Acres subdivision on the morning of November 8, 2004, as required of §195.52(a). Fire and/or explosions occurred as a result of the release at approximately 8:34 a.m. The pipeline pump at the Maytown extraction plant was shut down as a result of the accident at approximately 8:58 a.m., thus indicating that companies had knowledge of the accident at, or prior to, 8:58 a.m. MarkWest made telephonic notification of the accident at 1:49 p.m. on November 8.

Pipeline Safety Alert Notice ALN-91-01 (04/15/91) and Advisory Bulletin. ADB-02-04 (August 30, 2002), issued by US Department of Transportation Research and Special Programs Administration to owners or operators of hazardous liquid pipelines convey that telephonic notifications should be made within one to two hours after discovering the accident.

5. §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 system commence, and appropriate parts shall be kept at locations where operations and maintenance activities are conducted.

A. Companies did not keep appropriate parts of their procedural manual at the Maytown extraction plant operator's building (separation building). The only pipeline-relevant procedural document found in the building was an out of date emergency telephone list. No other written procedure, including *Task detail/procedures F 17 – Abnormal Operating Conditions/Corrective Actions/and Reporting Responsibilities*, and *Task F21 – Pipeline Emergencies and Communications*, were found in the building. Incoming telephone calls to the on-shift pipeline pump Operator would normally be received in this building.

B. The Maytown Plant Superintendent (Kentucky Hydrocarbon employee – “Superintendent”) did not follow written procedures as “Form 121 Pipeline Emergency Log” was not used to document the information received from the initial emergency call from his supervisor reporting that an explosion had occurred at Davidson [cemetery, which is near the pipeline]. MarkWest Pipeline Task detail/procedure *Task 21- Pipeline Emergencies and Communications* conveys “In the case of someone reporting an Emergency to Maytown, use Pipeline Form 121 to document the callers information” No log or documentation was made during or immediately after the initial notification of the emergency to Maytown. OM&E Manual Section 5.1.1.1 describes an emergency, in part, as a fire or explosion near the pipeline. Superintendent was documented as being qualified for performing Task 21 on 01/23/03.

C. Companies did not follow written public education program procedures, as there were no records of actual public education notifications made to the public adjacent to the pipeline. OM&E Manual Procedure 7.6.1 requires the operator to maintain records of actual notification made as a result of the public education program. Although notes indicate that informational calendars and letters were hand delivered in December, 2002 to property owners along the pipeline, no records were found of any actual notifications.

D. Companies did not follow written corrosion procedures to determine the effectiveness of the pipe-to-casing insulation at the MarkWest Pipeline cased road crossing at U.S. Highway 23 at Ivel, Kentucky. OM&E Manual section 9.6.1 conveys that “Electrical Isolation Measurements shall be made at insulated points and casings to determine the effectiveness of the insulation All data is to be recorded on Form 120” The referenced casing was not tested between calendar year 2000 (inclusive) and November 8, 2004. The 2002 “pipe-connected” survey between the Levisa Fork and Highway 23 was performed with the test wire connected to the upstream casing vent pipe. The 2002 survey records indicate that all of the pipe-to-soil readings through Rolling Acres were more negative than -0.800v, and that the readings in the area of the pipe failure at the Reid driveway were near -1.0 volt. These readings are in effect remote casing-to-soil readings, and are not consistent with the historical cathodic protection status of the referenced segment (not cathodically protected), the results of previous electrical surveys, the pipe-to-soil readings taken on adjacent (to the referenced segment) pipe segments during the 2002 survey, the pipe-to-soil reading taken at the accident site on November 9, 2004 (-0.520v), or of the pipe-connected electrical survey performed on December 16, 2004.

6. **§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:
... **(2) All crossings of public roads, railroads, rivers, buried utilities, and foreign pipelines.**

Foreign pipeline crossing maps and records were not maintained as required of §195.404 (a)(2). Maps and records of the Kentucky – West Virginia Gas Company (KY-WV) Line N-38 crossing the 4" MarkWest Pipeline on the northeast side of U.S. Highway 23 at Ivel, Kentucky were not found in records of corrosion surveys performed after 1997. KY-WV records indicate that a KY-WV above-ground test station at this crossing was installed in 1991.

7. **§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;
... **(2) Prompt and effective response to a notice of each type emergency, including fire or explosion occurring near or directly involving a pipeline facility, accidental release of hazardous liquid or carbon dioxide from a pipeline facility, operational failure causing a hazardous condition, and natural disaster affecting pipeline facilities.**
... **(4) Taking necessary action, such as emergency shutdown or pressure reduction, to minimize the volume of hazardous liquid or carbon dioxide that is released from any section of a pipeline system in the event of a failure.**

Emergency procedures required of §195.402(e)(2) and (e)(4) were not adequate at the time of the accident. The emergency response procedures in OM&E Manual Section 5 were not in the detail required, in the situation where an employee is not at the scene of the accident, to necessitate 1) a prompt and effective response to a notice of a fire or explosion occurring near or directly involving the pipeline, and 2) an emergency shutdown or pressure reduction, to minimize the volume of hazardous liquid that is released from any section of the pipeline in the event of a failure. Section 5.1.3.1 is the only section that specifically mentions pipeline emergency shutdown requirements; this is in the case of an employee at the scene of the emergency. Section 5.1.1.2 conveys "In extreme emergencies, when it is necessary, in order to prevent injury to employees or to the public, or to prevent serious damage to property, the first employee to become aware of the emergency shall take such action as is necessary in his best judgement." This statement lacks clear direction as to when an employee is required to shut the pipeline down in the case of a reported fire or explosion occurring near or directly involving the pipeline. Other written emergency procedures in OM&E Manual Section 5 and in Task/detail procedure Task F21 only require further notification to supervisory and/or pipeline personnel, with no clear direction as to when to shut the pipeline down.

8. **§ 199.105 Drug tests required.**

Each operator shall conduct the following drug tests for the presence of a prohibited drug:

... (b) *Post-accident testing.* As soon as possible but no later than 32 hours after an accident, an operator shall drug test each employee whose performance either contributed to the accident or cannot be completely discounted as a contributing factor to the accident. An operator may decide not to test under this paragraph but such a decision must be based on the best information available immediately after the accident that the employee's performance could not have contributed to the accident or that, because of the time between that performance and the accident, it is not likely that a drug test would reveal whether the performance was affected by drug use.

[Excerpts from §199.3 Definitions]

***Covered employee, employee, or individual to be tested* means a person who performs a covered function, including persons employed by operators, contractors engaged by operators, and persons employed by such contractors.**

***Covered function* means an operations, maintenance, or emergency-response function regulated by part 192, 193, or 195 of this chapter that is performed on a pipeline or on an LNG facility.**

***Operator* means a person who owns or operates pipeline facilities subject to part 192, 193, or 195 of this chapter.**

***Covered employee, employee, or individual to be tested* means a person who performs a covered function, including persons employed by operators, contractors engaged by operators, and persons employed by such contractors.**

Companies did not make a decision, under the requirements of §199.105(b), regarding a post-accident drug test of the two "employees" whose performance of covered functions could have contributed to the November 8, 2004 accident. The two employees were not drug tested as soon as possible but no later than 32 hours after the accident. These employees' performance and supervisors' knowledge of their performance are indicated below.

A MarkWest employee (job title Pipeline Tech A (technician)) was operating pipeline valves at Flow Station #4 immediately prior to the accident. One of the valves mechanically failed in the closed position, which led to an increase in pressure and ultimately contributed to the failure of the pipe. The technician conveyed that he called the Maytown Plant pipeline pump operator on two occasions and sought advice from a MarkWest Senior Pipeline Technician (supervisor) shortly after the valve was closed.

A Kentucky Hydrocarbon Company employee (job title Operator) was operating the Maytown Plant pipeline pump at the time of the low flowrate alarm caused by the closed valves at Flow Station #4. She was in telephone communication with the technician discussing the condition of the line (low flow alarm). Her analysis of pipeline pump information was not completely immediately discounted as a

contributing factor to the accident. The technician (see above) conveyed to the MarkWest Senior Pipeline Technician (supervisor) the results of the Operator-technician phone conversation.

9. **§ 199.225 Alcohol tests required.**

Each operator shall conduct the following types of alcohol tests for the presence of alcohol:

- (a) *Post-accident.* (1) As soon as practicable following an accident, each operator shall test each surviving covered employee for alcohol if that employee's performance of a covered function either contributed to the accident or cannot be completely discounted as a contributing factor to the accident. The decision not to administer a test under this section shall be based on the operator's determination, using the best available information at the time of the determination, that the covered employee's performance could not have contributed to the accident.**
- (2)(i) If a test required by this section is not administered within 2 hours following the accident, the operator shall prepare and maintain on file a record stating the reasons the test was not promptly administered. If a test required by paragraph (a) is not administered within 8 hours following the accident, the operator shall cease attempts to administer an alcohol test and shall state in the record the reasons for not administering the test.**

[See also excerpts from §199.3 Definitions]

Companies did not make a decision, under the requirements of §199.225(a), regarding a post-accident alcohol test of the two "employees" whose performance could have contributed to the November 8, 2004 accident. The two employees were not alcohol tested as soon as practicable following the accident. These employees' performance and supervisor's knowledge of their performance are indicated below.

A MarkWest employee (job title Pipeline Tech A (technician)) was operating pipeline valves at Flow Station #4 immediately prior to the accident. One of the valves mechanically failed in the closed position, which led to an increase in pressure and ultimately contributed to the failure of the pipe. The technician called the Maytown Plant pipeline pump operator on two occasions and sought advice from a MarkWest Senior Pipeline Technician (supervisor) shortly after the valve was closed.

A Kentucky Hydrocarbon Company employee (job title Operator) was operating the Maytown Plant pipeline pump at the time of the low flowrate alarm caused by the closed valves at Flow Station #4. The operator was in telephone communication with the technician discussing the condition of the line (low flow alarm). Her analysis of pipeline pump information was not completely immediately discounted as a contributing factor to the accident. The technician conveyed to the MarkWest Senior Pipeline Technician (supervisor) the results of the Operator-technician phone conversation.

Proposed Civil Penalty

Under 49 United States Code §60122, you are subject to a civil penalty not to exceed \$100,000 for each violation for each day the violation persists up to a maximum of \$1,000,000 for any related series of violations. The Compliance Officer has reviewed the circumstances and supporting documentation involved in the above probable violations and has recommended that you be preliminarily assessed a civil penalty of \$1,070,000 for the violation numbers listed below.

Probable Violation 1	\$ 825,000
Probable Violation 2	142,500
Probable Violation 4	10,000
Probable Violation 5D	52,500
Probable Violation 8	20,000
<u>Probable Violation 9</u>	<u>20,000</u>
Total	\$ 1,070,000

Warning Items

Additionally, with respect to items: 3, 5A, 5B, 5C, 6 and 7 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 items. Be advised that failure to do so may result in Equitable Production Company and MarkWest Hydrocarbon, Inc. being subject to additional enforcement action. In regard to item 7, PHMSA has received and reviewed revised emergency procedures.

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. 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 addition to the above, I wish to bring to your attention that the regulatory requirement for operators' Public Education programs was amended in June, 2005. The current amended code (reference §195.440 Public Awareness) requires operators to develop and implement a program that follows the guidance provided in the American Petroleum Institute's (API) Recommended Practice (RP) 1162 (API 1162). For MarkWest, the written program must be completed no later than June 20, 2006. I understand that you have recently revised much of your Public Awareness Program consistent with the API 1162; however, I also understand that your written program evaluation requirements may need to be more specific. Consistent with the code, I am expecting that your written program evaluation requirements be fully developed and ready for implementation no later than June 20, 2006.

In your correspondence on this matter, please refer to **CPF No. 2-2006-5001** and for each document you submit, please provide a copy in electronic format whenever possible.

Sincerely,

A handwritten signature in cursive script that reads "Linda Daugherty". The signature is written in black ink and is positioned above the typed name and title.

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

cc: Compliance Registry, PHMSA Headquarters

Enclosure: Response Options for Pipeline Operators in Compliance Proceedings