



U.S. Department  
of Transportation  
**Research and  
Special Programs  
Administration**

400 Seventh St. S.W.  
Washington, D.C. 20590

APR - 4 2003

Mr. Thomas A. Bannigan  
President, Products Pipelines  
Kinder Morgan Energy Partners  
500 Dallas Street, Suite 1000  
Houston, TX 77251

Re: CPF No. 36525

Dear Mr. Bannigan:

Enclosed is the Final Order issued by the Associate Administrator for Pipeline Safety in the above-referenced case. It makes findings of violation and assesses a civil penalty of \$40,000. The penalty payment terms are set forth in the Final Order. This enforcement action will close automatically upon payment of the civil penalty. Your receipt of the Final Order constitutes service of that document under 49 C.F.R. § 190.5.

Sincerely,

Gwendolyn M. Hill  
Pipeline Compliance Registry  
Office of Pipeline Safety

Enclosure

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

DEPARTMENT OF TRANSPORTATION  
RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION  
OFFICE OF PIPELINE SAFETY  
WASHINGTON, DC 20590

In the Matter of |

Kinder Morgan Energy Partners, |

Respondent. |

CPF No. 36525

**FINAL ORDER**

On September 15–16, 1994, pursuant to 49 U.S.C. § 60117, a representative of the Office of Pipeline Safety (OPS), conducted an on-site pipeline safety inspection of Enron Liquids Pipeline Company facilities and records regarding a September 13, 1994 accident at Enron's Morris Pumping Station and storage facility at Morris, Illinois. As a result of the inspection, the Director, Central Region, OPS, issued to Enron, by letter dated December 10, 1996, a Notice of Probable Violation and Proposed Civil Penalty (Notice). In accordance with 49 C.F.R. § 190.207, the Notice proposed finding that Respondent had violated 49 C.F.R. §§ 195.116(c), 195.401(a), 195.401(b), 195.402(a), 195.402(c)(3), 195.402(c)(9), 195.402(c)(11) and 195.402(d)(3), and proposed assessing a civil penalty of \$90,000 for the alleged violations. Kinder Morgan Energy Partners (Respondent) is now the operator of the facilities that are the subject of this Final Order.

Kinder Morgan responded to the Notice by letter dated February 14, 1997 and by letter dated March 27, 1997. Respondent submitted a compromise check in the amount of \$50,000 with its correspondence of February 14, 1997. The compromise check was returned to Respondent on March 7, 1997. In its correspondence Respondent contested the alleged violations, offered information to explain the allegations, and requested that the proposed civil penalty be reduced or eliminated. Respondent did not request a hearing and therefore waived its right to one.

**FINDINGS OF VIOLATION**

*Jurisdiction*

Respondent's 25,000 barrel natural gas liquid (NGL) tank is located at its Morris Station, which has been in operation since 1975. This tank receives natural gasoline liquid from Bushton, Kansas for storage and transporting from storage to Lemont Station, Illinois and a Mobil refinery. (Violation report, p.1). By definition a *breakout tank* is a tank used to: (a) relieve surges in a hazardous liquid

pipeline system; or (b) receive and store hazardous liquid transported by a pipeline for re-injection and continued transportation by pipeline. 49 C.F.R. § 195.2. The NGL tank at the Morris Station therefore falls under the definition of a breakout tank. Breakout tanks are subject to OPS jurisdiction under 49 C.F.R. § 195.1(c).

### *Accident*

An accident took place at the Morris Station on September 13, 1994 when control room operators inadvertently overfilled a breakout storage tank being filled with NGL. The accident resulted in 500 barrels of NGL being spilled, and \$680,000 in property damage, all confined to the pipeline facility property, according to a supplemental report filed by George Rood, Vice President of Operations for Enron on May 12, 1995. After the tank overflowed and the natural gas liquid ran off into the dike, vapors from the liquid spread and activated a hazardous atmosphere monitor (HAM). Then, according to Mr. Rood's statement, "[w]hile the operator was investigating the cause for the HAM alarm the vapors were ignited by a salt bath heater. The NG fire heated a nearby methanol tank causing failure of the tank and ignited approximately 6000 gallons of methanol."

### *Violations*

Item 2 alleged a violation of 49 C.F.R. § 195.401(a), which prohibits operators from operating or maintaining their systems at a level of safety lower than that required by subpart F of Part 195 and the procedures required under § 195.402(a). Enron did not have proper procedures in place for determining the liquid level in the breakout tank. The procedure in place consisted of balancing the volume delivered into the tank against the volume withdrawn from the tank, based on the metered volumes coming in and going out. An alarm was activated when the accident occurred, but controllers ignored the alarm because they knew that the alarm was not accurate. The alarm, as designed, was intended to activate based on hydrostatic pressure sensors located at the top and bottom of the tank. (Violation Report, violation #2, item 12).

Item 3 alleged a violation of 49 C.F.R. § 195.401(b), which specifies that whenever an operator discovers any condition that could adversely affect the safe operation of its pipeline system, it shall correct the condition within a reasonable time. The evidence indicates Enron knew that the liquid level alarm was not providing reliable data and stopped using the system. In fact, the violation report indicates that the alarm system had not worked properly for two or three years. (Violation Report, violation #3, item 11b). This length of time exceeds what could be considered a reasonable time for correcting the system.

Item 4 alleged a violation of 49 C.F.R. § 195.402(a), which requires each operator to prepare and follow a manual of written procedures for conducting normal operations and maintenance activities and handling abnormal operations and emergencies. As evidenced by the accident, Enron did not ensure that its procedures were effective for the safe operation of its pipeline system at the Morris facility during abnormal operating conditions, such as a tank overfill. Product was being received and delivered at the Morris facility and the measurements being taken were not consistently accurate.

For example, the inspection revealed at least three inaccurate readings in the year prior to the September 13, 1994 accident. (Violation Report, violation #4, item 11b). In its responses, Respondent did not dispute the fact that inaccurate readings occurred prior to the accident. Instead, Respondent argued that its "procedures in effect were not effective or adequate to prevent the overfill solely because the valve failed. We believe the procedures in effect would have been adequate and effective for normal operations." (February 14, 1997 response, p. 1). While Respondent's assertion may correctly apply to *normal* operations, such conditions did not exist on the day of the accident. The statement does not take into account the procedures that needed to be in place when an *abnormal* operating condition occurred.

Item 5 alleged a violation of 49 C.F.R. § 195.402(c)(3), which requires each O & M manual to include procedures that provide for safety during normal operations and maintenance. As explained earlier, the manual did not have adequate procedures that allowed for accurate product measurement while the tank was being filled. Given the known inaccuracy of the hydrostatic system, the operator calculated the volume of liquid in the tank based on the metered volume pumped into the tank versus the volume removed from the tank. According to the records, the maximum capacity of the tank was 25,610 barrels. At the time of the accident, Enron incorrectly estimated that the tank contained 23,410 barrels.

Item 6 alleged a violation of 49 C.F.R. § 195.402(c)(9), which requires that each O & M manual include procedures for detecting abnormal operating conditions and for transmitting the data to an attended location if the facility is used for the receipt and delivery of product. Enron had a computerized hydrostatic system for detecting high level conditions. However, the alarms associated with the computerized hydrostatic system did not operate properly. As stated previously, the alarms were known to be unreliable and had been disregarded for years. (Notice, p.3) Respondent did not dispute this finding in its response letters.

Item 7 alleged a violation of 49 C.F.R. § 195.402(c)(11), which requires each O & M manual to include procedures for minimizing the likelihood of accidental ignition of vapors in areas near facilities where the potential exists for flammable liquids to be present. After the spill occurred, NGL vapor was ignited by a nearby salt bath heater. The ensuing fire damaged the tank and other facilities (Violation Report, violation #7, item 12). Respondent's procedures for addressing accidental ignition were deficient, as evidenced by the ignition following the tank overflow.

Item 8 alleged a violation of 49 C.F.R. § 195.402(d)(3), which requires each O & M manual to include procedures that provide for safety when operating design limits have been exceeded. The regulation also specifies that each operator's procedures must provide for correcting variations from normal operations. Design limits were exceeded when the tank was filled over its intended capacity, and product flowed into the dike surrounding the tank. After design limits were exceeded, adequate procedures did not exist to correct the problem. If adequate procedures had been in place when the high liquid level alarm went off, the error would have been corrected before a spill occurred.

Based on the information contained in the record, I find that Respondent violated 49 C.F.R. §§195.401(a), 195.401(b), 195.402(a), 195.402(c)(3), 195.402(c)(9), 195.402(c)(11), and 195.402(d)(3). These findings of violation will be considered as prior offenses in any subsequent enforcement action taken against Respondent.

#### WITHDRAWAL OF ALLEGATION

Item 1 in the Notice alleged that Respondent violated 49 C.F.R. § 195.116(c), by failing to maintain valves on its system that are made of materials compatible with the commodity that will flow through its system. In this case a 1/2-inch Marsh needle valve was in use on the system even though this needle contained plastic material that was not suitable for use in a gasoline environment. In its February 14, 1997 response letter, Respondent asserted that the valve seating material was defective. According to information contained in a report prepared by Anderson Associates, the Marsh needle valve literature claims that the seat material is composed of a material called Delrin, a material developed by DuPont that is considered suitable for gasoline service with no anticipated deterioration. Respondent has submitted a separate report prepared by the Institute for Research, Inc. This report concludes that the subject needle valve was composed of material that was not consistent with Delrin. Because the needle valve was composed in part of material not described in the product description, the alleged violation has been withdrawn.

#### ASSESSMENT OF PENALTY

Under 49 U.S.C. § 60122, Respondent is subject to a civil penalty not to exceed \$100,000 per violation for each day of the violation up to a maximum of \$1,000,000 for any related series of violations.

49 U.S.C. § 60122 and 49 U.S.C. § 190.225 require that, in determining the amount of the civil penalty, I consider the following criteria: nature, circumstances, and gravity of the violation, degree of Respondent's culpability, history of Respondent's prior offenses, Respondent's ability to pay the penalty, good faith by Respondent in attempting to achieve compliance, the effect on Respondent's ability to continue in business, and such other matters as justice may require.

The Notice proposed assessing a civil penalty of \$90,000. In its February 14, 1997 response, Respondent requested that each of the proposed civil penalties be reduced or eliminated. Respondent based its request primarily upon three assertions: (1) substantially all of the allegations contained in the Notice were the direct result of the failure of the Marsh needle valve; (2) the procedures in effect would have been adequate and effective for normal operations; and (3) Respondent extensively investigated the accident and took several steps to reduce the likelihood of a similar event occurring in the future. (Response, pp. 1-2).

While Respondent is correct that the accident would not have occurred if the Marsh needle valve had not been defective, it does not negate the fact that Respondent was poorly prepared to address an accidental overfill of the tank, and in fact notwithstanding the defective valve, the accident could

have been avoided if Respondent had repaired its ineffective alarm system. The lack of adequate controls and procedures to monitor the liquid level in the tank led directly to the overflow of the tank. Because the facility operators were ignoring the hydrostatic system alarms, there was no way to know when the system went from a normal operating mode to an abnormal operating mode. No reliable system existed to monitor tank volumes.

In its favor, Respondent has now taken numerous actions to reduce the potential that a similar occurrence takes place. Those actions included:

- \* the installation of a redundant level gauging system;
- \* the installation of two combustible gas detectors;
- \* the installation of two gas detectors;
- \* separate sensing points for level detection and pressure detection; and
- \* the revision of certain inspection procedures.

The release of NGL caused a vapor cloud to form that resulted in ignition of a hydrocarbon liquid. If the vapor cloud had migrated to adjacent areas it could have caused serious damage and injuries to persons and property. At least two highways (US Highway #6 and #80) and the town of Morris are located within five (5) miles of the station. There is also a Mobil refinery located next to this facility.

Based on the actions taken by Respondent following the accident to prevent similar occurrences and the withdrawal of Item 1, the penalty amount has been reduced from \$90,000 to \$40,000. Therefore, having reviewed the record and considered the assessment criteria, I assess a civil penalty of \$40,000. I find that Respondent has the ability to pay the assessed penalty and that imposition of the penalty will not affect Respondent's ability to remain in business.

The reduced penalty amounts are reflected below:

Item No. 1.....	\$15,000 penalty eliminated
Item No. 2, 3, 4, 5, 6, 8.....	\$65,000 reduced to \$35,000
Item No. 7.....	\$10,000 reduced to \$5000

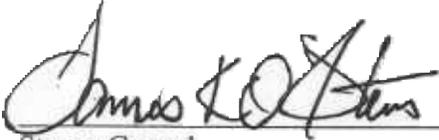
Payment of the civil penalty must be made within 20 days of service. Federal regulations (49 C.F.R. § 89.21(b)(3)) require this payment be made by wire transfer, through the Federal Reserve Communications System (Fedwire), to the account of the U.S. Treasury. Detailed instructions are contained in the enclosure. Questions concerning wire transfers should be directed to: Financial Operations Division (AMZ-120), Federal Aviation Administration, Mike Monroney Aeronautical Center, P.O. Box 25770, Oklahoma City, OK 73125; (405) 954-4719.

Failure to pay the civil penalty of \$40,000 will result in accrual of interest at the current annual rate in accordance with 31 U.S.C. § 3717, 31 C.F.R. § 901.9, and 49 C.F.R. § 89.23. Pursuant to those same authorities, a late penalty charge of six percent (6%) per annum will be charged if payment is

not made within 110 days of service. Furthermore, failure to pay the civil penalty may result in referral of the matter to the Attorney General for appropriate action in an United States District Court.

Under 49 U.S.C. § 190.215, Respondent has a right to petition for reconsideration of this Final Order. If a petition is filed, do not forward payment with the petition. The filing of the petition automatically stays the payment of any civil penalty assessed. If payment is forwarded, the case will automatically close, and the right to file a petition for reconsideration will be waived. The petition must be received within 20 days of Respondent's receipt of this Final Order and must contain a brief statement of the issue(s).

The terms and conditions of this Final Order are effective upon receipt.



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Stacey Gerard

 Associate Administrator  
for Pipeline Safety

APR - 4 2003

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Date Issued