



U.S. Department  
of Transportation

**Research and  
Special Programs  
Administration**

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

OCT 29 2004

Mr. Terry L. Hurlburt  
Vice President/General Manager Operations  
Enterprise Products Operating L.P.  
2727 North Loop West  
Houston, TX 77008-1044

Re: CPF No. 3-2004-5032H

Dear Mr. Hurlburt:

Enclosed is a Corrective Action Order issued by the Associate Administrator for Pipeline Safety in the above-referenced case. It requires you to take certain corrective actions, including a pressure reduction, with respect to the Enid lateral on your anhydrous ammonia system. Service is being made by certified mail and facsimile. Your receipt of this Corrective Action Order constitutes service of that document under 49 C.F.R. § 190.5. The terms and conditions of this Corrective Action Order are effective upon receipt.

Sincerely,

James Reynolds  
Pipeline Compliance Registry  
Office of Pipeline Safety

Enclosure

**VIA CERTIFIED MAIL (RETURN RECEIPT REQUESTED) AND TELECOPY**

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

**In the Matter of** )  
 )  
**Enterprise Products Operating L.P,** )  
 )  
**Respondent.** )  
 )

**CPF No. 3-2004-5032H**

**CORRECTIVE ACTION ORDER**

**Purpose and Background**

This Corrective Action Order is being issued, under authority of 49 U.S.C. § 60112, to require Enterprise Products Operating L.P. (Respondent) to take the necessary corrective action to protect the public, property, and the environment from potential hazards associated with the October 27, 2004 failure of Respondent's anhydrous ammonia pipeline near Kingman, Kansas.

The October 27, 2004, failure resulted in the release of more than 3000 bbls of anhydrous ammonia from the 8-inch diameter Enid lateral. The cause of the failure has not yet been determined. Pursuant to 49 U.S.C. § 60117, the Central Region, Office of Pipeline Safety (OPS) initiated an investigation of the accident.

**Preliminary Findings**

1. On October 27, 2004, at 2:08 p.m. Eastern time, Respondent reported to the National Response Center (NRC) that a rupture had occurred on its 8-inch anhydrous ammonia pipeline near Kingman, Kansas. The NRC report stated that the failure had occurred at approximately 11:52 a.m., Central time, on that day.
2. A vapor cloud approximately ½-mile wide that resulted from the failure delayed access to the failure site. Once the vapor cloud dissipated, Respondent was able to uncover the pipe at the failure site for an initial visual inspection. Both Respondent's personnel and OPS personnel made the visual inspection. The initial visual inspection found a 12-14-inch split that runs longitudinally on the pipe at about the one o'clock position. At the midpoint of the split, the pipe opened about 1 ½-inches. The visual inspection reported marks on the pipe similar to those associated with backhoe teeth marks. There appeared to be a dent at one end of these marks. The split in the pipe was within one of these marks. Visual observation also found parallel marks running along the pipe at about the ten o'clock position. The cause of failure has not yet been determined, but third party damage is suspected.

3. Respondent's anhydrous ammonia system includes the Enid lateral that runs from Enid, Oklahoma to Partridge, Kansas and the Verdigris lateral that runs from Verdigris, Oklahoma to Enid, Oklahoma. The October 27 failure occurred in the Enid lateral. (This section of the line will be referred to as the affected segment.) The Enid lateral runs through Grant County in Oklahoma and the Kansas counties of Harper, Kingman and Reno.
4. The release occurred in a rural area. The town of Kingman, Kansas is approximately six miles from the failure site. The failure site is approximately one mile north of Highway 54. At least 3000 bbls of anhydrous ammonia were released from the rupture. Some of the discharge spilled into a drainage ditch approximately 30 feet from the failure site. The ditch flowed into a small pond on Smoots Creek. High pH readings were found on Smoots Creek, about 2.2 miles downstream from the pond. Smoots Creek is a tributary of the South Fork Ninnescah River. The pH readings taken at the river did not indicate that the anhydrous ammonia had migrated to the river. The area in which the spill occurred is classified as a drinking water unusually sensitive environmental area per the definition in 49 C.F.R. §195.6.
5. Emergency response officials evacuated 30 homes in a four-square mile area of the leak site.
6. Anhydrous ammonia is a hazardous substance that is used in the manufacture of fertilizer, pesticides and plastics. According to its Material Safety Data Sheet, anhydrous ammonia is an irritant and corrosive to skin, eye, respiratory tract and mucous membranes.
7. The Enid lateral was constructed in 1973 and hydrostatically tested in December 1973 and early 1974. The pipeline consists of 8-inch, X-46 pipe with 0.156-inch wall thickness. The pipe was manufactured by Lone Star with ERW longitudinal weld seams.
8. The maximum operating pressure for the line segment at the failure site was established by the pressure test to be 1185 psig. At the time of the failure, the operating pressure at the Enid, Oklahoma station was 1329 psig, 1063 psig at the Harper, Kansas station, and 897 psig at the Partridge Station. The calculated pressure at the leak site (MP 26) was 981 psig. The maximum operating pressure from the Enid station (MP 118) to MP 87.2 is 1395 psig, from MP 87.2 to the Harper, Kansas station (MP 51) 1200 psig, and from the Harper station (MP 51) to Partridge Station (MP 0) 1185 psig.
9. Respondent has scheduled internal inspection of the affected segment of line for 2006; the segment has not been previously inspected using internal inspection tools.
10. Respondent operates the pipeline. Magellan Midstream Partners, L.P. owns the pipeline.

#### **Determination of Necessity for Corrective Action Order and Right to Hearing**

Section 60112 of Title 49, United States Code, provides for the issuance of a Corrective Action Order, after reasonable notice and the opportunity for a hearing, requiring corrective action, which

may include the suspended or restricted use of a pipeline facility, physical inspection, testing, repair, replacement, or other action as appropriate. The basis for making the determination that a pipeline facility is hazardous, requiring corrective action, is set forth both in the above referenced statute and 49 C.F.R. § 190.233, a copy of which is enclosed.

Section 60112, and the regulations promulgated thereunder, provide for the issuance of a Corrective Action Order without prior opportunity for notice and hearing upon a finding that failure to issue the Order expeditiously will likely result in serious harm to life, property or the environment. In such cases, an opportunity for a hearing will be provided as soon as practicable after the issuance of the Order.

After evaluating the foregoing preliminary findings of fact, I find that the continued operation of the affected segment without corrective measures would be hazardous to life, property and the environment. Additionally, after considering the age of the pipe, the proximity of the pipeline to populated areas, highways and waterways, including a drinking water unusually sensitive environmental area, the lack of information concerning the reason for the failure, and the hazardous nature of the product being transported, I find that a failure to expeditiously issue this Order requiring immediate corrective action would likely result in serious harm to life, property, or the environment.

Accordingly, this Corrective Action Order mandating immediate corrective action is issued without prior notice and opportunity for a hearing. The terms and conditions of this Order are effective upon receipt.

Within 10 days of receipt of this Order, Respondent may request a hearing, to be held as soon as practicable, by notifying the Associate Administrator for Pipeline Safety in writing, delivered personally, by mail or by telecopy at (202) 366-4566. The hearing will be held in Kansas City, MO or Washington, DC on a date that is mutually convenient to OPS and Respondent.

After receiving and analyzing additional data in the course of this investigation, OPS may identify other corrective measures that need to be taken. In that event, Respondent will be notified of any additional measures required and amendment of this Order will be considered. To the extent consistent with safety, Respondent will be afforded notice and an opportunity for a hearing prior to the imposition of any additional corrective measures.

#### **Required Corrective Action**

Pursuant to 49 U.S.C. § 60112, I hereby order Enterprise Products Operating L.P. to immediately take the following corrective actions with respect to the Enid lateral that runs from Enid Station, Oklahoma (MP 118) to Partridge Station, Kansas (MP 0) :

1. Maintain the operating pressure on the affected segment not to exceed 80 percent (80%) of the actual operating pressure in effect just prior to the October 27, 2004 failure. Specifically,

the pressure is not to exceed 785 psig at the failure site. This pressure restriction will remain in effect until the Director, Central Region, OPS gives written approval to increase the pressure or return the pipeline to its pre-failure operating pressure.

2. Within 30 days of receipt of this Order, develop and submit to the Central Regional Director a plan for the mechanical and metallurgical testing of the failed pipe section. The plan must include:
  - (A) A protocol for the testing of the failed pipe section. The protocol must provide for collecting, cataloging, and sealing the pipe and all other evidence in the presence of OPS or an OPS representative and documenting the chain-of-custody. Respondent must obtain prior approval of the testing protocol, from the Director, Central Region, OPS ;
  - (B) Prior to commencing the metallurgical testing, providing the Director, Central Region, OPS with the scheduled date, time, and location of the testing to allow an OPS representative to witness the testing; and
  - (C) Provision for ensuring that the laboratory distributes all resulting metallurgical reports, whether draft or final, to the Central Regional Director at the same time as they are made available to Respondent.
  
3. Within 60 days of receipt of this Order, develop and submit a written plan to verify the integrity of the affected segment to the Director, Central Region, OPS. The Director must approve the plan before it is implemented.
  - (A) The plan must include a detailed description of the integrity verification measures proposed.
  - (B) The plan must fully address all known or suspected factors that caused or contributed to the October 27, 2004 failure.
  - (B) The plan must include a detailed description of the inspection and repair criteria that will be used in the field evaluation of the anomalies that are excavated..
  - (C) The plan must provide for prior notification to the Director, Central Region, OPS of the scheduled date, time, and location of any testing or other integrity verification measure the plan calls for to allow an OPS representative to witness the test.
  - (D) The plan must provide for submitting to the Central Regional Director the records of any testing conducted under the integrity verification plan within 30 days after completing the test.

4. Submit the required plans to: Director, Central Region, Office of Pipeline Safety, 901 Locust Street, Suite 462, Kansas City, MO 64106-2641. The Director may approve plan elements incrementally. Implement the plan as it is approved.
5. The Director, Central Region, OPS may allow the removal or modification of the pressure restriction set forth in Item 1 upon a written request from Respondent demonstrating that the hazard has been abated and that restoring the pipeline to its pre-failure operating pressure is justified based on a reliable engineering analysis showing that the pressure increase is safe considering all known defects, anomalies and operating parameters of the pipeline.
6. The Director, Central Region, OPS may grant an extension of time for compliance with any of the terms of this Order for good cause. A request for an extension must be in writing.

The corrective actions required by this Corrective Action Order are in addition to and do not waive any requirements that apply to the pipeline under 49 C.F.R. Part 195, including the integrity management program regulations.

Respondent may appeal any decision of the Director to the Associate Administrator for Pipeline Safety. Decisions of the Associate Administrator are final.

Failure to comply with this Order may result in the assessment of civil penalties of not more than \$100,000 per day and in referral to the Attorney General for appropriate relief in United States District Court.

*William H. Gerard*  
for

---

Stacey Gerard  
Associate Administrator  
for Pipeline Safety

OCT 29 2004

---

Date Issued