



US Department  
of Transportation

**Research and  
Special Programs  
Administration**

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

**APR 16 2003**

Mr. Anthony M. Izzo  
Vice President of Engineering & Operations  
Enstar Natural Gas Company  
3000 Spenard Road  
P. O. Box 190288  
Anchorage, Alaska 99519-0288

RE: CPF No. 59010

Dear Mr. Izzo:

Enclosed is the Final Order issued by the Associate Administrator for Pipeline Safety in the above-referenced case. It makes a finding of violation and assesses a civil penalty of \$10,000. The Final Order also requires certain corrective action and revision of certain operating and maintenance procedures. At such time that the civil penalty is paid, the procedures are amended and the terms of the compliance order are completed, as determined by the Director, Western Region, this enforcement action will be closed. 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

cc: Tom Waldock, Attorney  
Madelon M. Blum, Attorney  
John J. Lau, Vice President Engineering

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

In the Matter of )

Enstar Natural Gas Company, )

Respondent. )

CPF No. 59010

**FINAL ORDER**

On March 1, 1998, pursuant to 49 U.S.C. § 60117, a representative of the Office of Pipeline Safety (OPS) initiated an investigation of Respondent's report of an explosion and fire involving its Kenai Transmission Line at the Anchorage Municipal Light and Power (ML&P) Plant #1 in Anchorage, Alaska. As a result of the inspection, the Director, Western Region, OPS, issued to Respondent, by letter dated September 22, 1999, a Notice of Probable Violation and Proposed Compliance Order, Proposed Civil Penalty and Notice of Amendment (Notice). In accordance with 49 C.F.R. § 190.207, the Notice proposed finding that Respondent committed violations of 49 C.F.R. Part 192, proposed assessing a civil penalty of \$10,000 for the alleged violations, and proposed that Respondent take certain measures to correct the alleged violations. The Notice also proposed, in accordance with 49 C.F.R. § 190.237, that Respondent amend its procedures for Operations, Maintenance and Emergencies.

In a letter dated, October 21, 1999, Respondent contested all allegations and submitted a request for a ninety (90) day extension of time to complete an investigation and to fully respond to the Notice. The request for an extension was granted on November 2, 1999. In March, 2000, Respondent requested a hearing. The hearing was postponed when Respondent submitted a second request for an extension of time. On April 23, 2001, Respondent submitted another request for an extension of time based on ongoing litigation of the March 1, 1998 incident. By agreement of the parties, Respondent agreed to submit a brief in lieu of a hearing by November 5, 2001. In a brief dated October 29, 2001, Respondent contested the allegations, offered information in explanation of the allegations, and provided information concerning the corrective actions it has taken (Response).

## **FINDINGS OF VIOLATION**

### ***Uncontested***

Respondent did not contest alleged violation §192.615(c) in the Notice. Accordingly, I find that Respondent violated 49 C.F.R. Part 192, as more fully described in the Notice:

49 C.F.R. §192.615(c) – failure to plan or coordinate emergency response with fire officials.

This finding of violation will be considered a prior offense in any subsequent enforcement action taken against Respondent

**Item 1** of the Notice alleged violation of 49 C.F.R. §192.467, for Respondent's failure to protect its Kenai natural gas transmission pipeline against fault currents in the vicinity of the ML&P power plant. In response, Respondent argued that the pipeline which failed was installed in 1960, prior to the development of §192.467. Nevertheless, Respondent advised that it would take the required actions to ensure compliance with the regulations. Respondent further advised that it had installed new technology fault current dissipation devices in the vicinity of the various power generation plants in its service area and it has revised its procedures to specifically address the need to protect its pipeline from electric fault currents.

As for Respondent's argument that the pipeline which failed was installed prior to the development of §192.467, Respondent is directed to Amendment 192-4<sup>1</sup>, which clarifies requirements for existing pipelines. The Natural Gas Pipeline Safety Act (section 3(b) makes clear that standards applying to the extension, operation, replacement, or maintenance and subsequent inspection and subsequent testing are applicable to pipeline facilities in existence on the date the standards are adopted. Amendment 192-4 states that provisions applicable to existing lines are permissible as part of the regular operation and maintenance requirements of existing pipelines. Contrary to Respondent's argument, §192.467 does apply to its pipeline.

When a pipeline is in a common right-of-way with power lines, some portion of the fault current may flow on the pipeline. Thus, problems can occur where pipelines share the right-of-way with overhead power lines. When fault current flows to earth it raises the surrounding soil potential to very high voltages and the resulting current will take the path of least resistance. A pipeline will have less resistance than the earth, creating a high risk of catastrophic results. Unless the fault current is interrupted or dissipated, this enormous amperage rapidly heats components to very high temperatures that destroy insulation, melt metal, start fires and may even cause an explosion if arcing occurs. The inherent likelihood of severe equipment and property damage, as well as the risk of personal injury or death, underscores the importance of sufficient fault current protection.

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<sup>1</sup> Notice of Proposed Rulemaking was published in the Federal Register (Notice 70-10.35 F.R. 8833) on June 6, 1970 and a public hearing was held on July 20, 1970.

In this case, excavation of Respondent's pipeline revealed numerous areas of fault current damage. The 2-inch HDPE (polyethylene) pipe adjacent to the power pole indicated that the tracer wire had melted and burned through the pipe wall. An eight-inch steel lateral to the 1-inch transmission line located immediately to the east of the power pole appeared to have received a high magnitude discharge from the power pole grounding rod which was located 16-inches away. The coating had been blasted off and the pipe metal partially melted. The northern 6-inch steel pipeline revealed that a piece of rebar left in the ditch during original excavation had been fused to the pipewall, with an actual burn through the pipe. The relief stack for regulator station revealed signs of arcing where it exited the metal roof. The 3/4 inch natural gas line was burned through. Operators must protect their pipelines against damage that may be caused by fault currents. Respondent has not shown any circumstance that would have prevented or justified it not properly protecting its Kenai natural gas transmission pipeline against fault currents in the vicinity of the ML&P power plant. Accordingly, I find Respondent violated 49 C.F.R. §192.467.

**Item 2** of the Notice alleged violation of 49 C.F.R. §192.605 (a), failure to follow a manual of written procedures for emergency response as required by §§192.613(a), 192.615 and 192.617.

**Item 2a** of the Notice alleged violation of 49 C.F.R. §192.615 (a), failure to follow established written emergency shutdown procedures to isolate gas flow from the pipeline failure in a timely manner and minimize the hazard to life and property.

In response to the allegations, Respondent acknowledged that its personnel was aware of and considered closing the above-ground isolation valves in its shutdown procedures. Respondent explained that the decision to shut off two service lines into the control building and the decision later to excavate valves A1232-T3 and T4 (T3 and T4), under 1<sup>st</sup> Avenue, were made because T3 and T4 were the nearest insulation valves that would not cause the shut down of service in the vicinity. Respondent further explained that following its shutdown procedures would shutdown service and the line could not return to "service without first pressure testing and leak surveying the system to insure all damages were located and repaired." Respondent argued that closing the three valves identified in its shutdown procedures, T1, T6 and T9, would not have instantaneously shut off the supply of gas to the fire nor would it have prevented the fire and explosion. Respondent contends that it minimized the threat to life and property by using the common sense approach.

Respondent's decision not to follow its written procedures seems more associated with the cost of returning the line to service than safety. In an emergency, an operator must respond to an ongoing and evolving situation by balancing the need to respond against all risks involved. This decision-making is aided by the operator's written emergency response procedures with safety as the driving force. The emergency response plan should anticipate emergencies prior to the commencement of an emergency response operation and address emergency preparedness, personnel roles, training, and procedures. When an operator fails to follow emergency response procedures and deviates from the predetermined plan of action, the proper procedures and techniques to follow may not be clear to personnel and others responsible for responding to a pipeline emergency.

“Site Commanders tend to think in terms of putting out a fire as quickly as possible while gas pipeline operators never attempt to extinguish a pipeline fire until the fuel has been cut off and the compressible gas de-inventoried.”<sup>2</sup> It is critical to follow emergency response procedures to ensure that everyone is on the same page. Following the plan saves precious time during a real emergency. An objective of the procedures is to assure that responders who could be involved in an emergency are prepared to recognize and deal with the situation in an expeditious and safe manner.

The procedures are also in place to aid in the decision making so that in an emergency situation the operator has accurate and current information available for responders. The procedures also ensure that there are steps to follow to protect the public, property and environment from a gas pipeline emergency. Failure to follow an emergency response plan jeopardizes the success of the emergency responders, seriously undermines the purpose of §192.615, and does not comply with the regulations. Respondent makes it clear that it chose not to follow its written procedures. Accordingly, I find Respondent violated 49 C.F.R. §§192.605 (a).

With respect to the alleged violation of §192.615 (a), written procedures should state the purpose and objective of the plan and provide the basis for instructions to appropriate personnel. Respondent acknowledged that its personnel was aware of and considered closing the isolation valves in its shutdown procedures. An objective of the emergency shutdown plan should be to assure that personnel who could be involved in an emergency are prepared to recognize and deal with the situation in an expeditious and safe manner.

To assure the safety of the general public, emergency shutdown procedures should provide for a prompt and effective response with a rapid shut-down to effectively control or isolate the flow of gas. Respondent chose not to follow procedures but spend hours excavating valves other than the those identified as emergency shutdown valves, while emergency responders continued in vain to extinguish a fire that was constantly being fueled. In light of the risks taken by the emergency responders, Respondent’s argument that it took a common sense approach is devoid of wisdom. While it is true that closing the emergency shut off valves would not have instantaneously shut off the supply of gas to the fire, neither did Respondent’s closing of valves T-3 and T4 which took valuable hours to excavate. “Given the compressible nature of gas, shutoff is never instantaneous.”<sup>3</sup> Respondent has provided no evidence that it would have taken more time to isolate the flow of gas had it initially followed its emergency procedures than it took to excavate valves T-3 and T4 to isolate the flow of gas.

The facts show that at 9:46 a.m. the Anchorage Fire Department called Respondent to respond to a fire at the base of the power pole. Respondent’s engineer arrived at the scene at 10:45 a.m. Respondent made a failed attempt to isolate the gas by digging down to clamp/crimp a low pressure distribution line. Respondent then decided to expend hours excavating valves T-3 and T-4 to try to isolate the gas rather than go ½ mile from the failure site and close the designated emergency

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<sup>2</sup>Respondent’s Exhibit “C”, Accufacts Inc. “Report on Enstar Incident of 3/12/98”, p. 10.

<sup>3</sup>Respondent’s Exhibit “C”, Accufacts Inc. “Report on Enstar Incident of 3/12/98”, p. 2.

shutdown valves. Complete isolation did not occur until approximately 3 ½ hours later. At approximately 3:00 p.m. the fires were extinguished. Written procedures identify a particular course of action to achieve a desired result. Respondent acknowledged that its personnel was aware of and considered closing the isolation valves in its shutdown procedures but decided not to follow procedures and thereby failed to comply with the regulations. Accordingly, I find Respondent violated 49 C.F.R. §192.615 (a).

This findings of violation will be considered a prior offense in any subsequent enforcement action taken against Respondent.

### **ASSESSMENT OF PENALTY**

Under 49 U.S.C. § 60122, Respondent is subject to a civil penalty not to exceed \$25,000 per violation for each day of the violation up to a maximum of \$500,000 for any related series of violations. The Notice proposed a \$10,000 civil penalty for violation of 49 C.F.R. § 192.615(a).

49 U.S.C. § 60122 and 49 C.F.R. § 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.

In response to Item 2a, the Respondent requested reconsideration of the proposed \$10,000 civil penalty, for failure to follow established emergency shutdown procedures to isolate gas flow from the pipeline failure in a timely manner and minimize the hazard to life and property. Respondent argued that it's shutdown procedures state that not all failures require shutdown for repair. Shutdown should only be considered when the integrity of the system is threatened or when safety dictates such action.

#### *Respondent's History (CPF No. 57006M)*

On June 10, 11, 12, and 18, 1997, the Office of Pipeline Safety (OPS) conducted an on-site safety inspection of Respondent's facilities and records in Anchorage, Alaska, which included its Kenai Transmission line. As a result of the inspection, the Director, Western Region, OPS issued to Respondent a Notice of Amendment (CPF No. 57006M), alleging violations of 49 C.F.R. §§192.615(a) and 192.199(h). The violation of §192.615(a) stemmed from Respondent's identification of two buried valves in its emergency procedures. Valves T3 and T4 were buried and therefore not accessible in a timely manner, as key valves to isolate regulator station A-205 - ML&P Power #1.

In response to CPF No. 57006M, Respondent asserted that a misunderstanding occurred during the inspection that was caused by its representative attempting to recall from memory the location of the isolation valves. Respondent submitted amended Emergency Shutdown Procedures identifying T1,

T6 and T9 as the valves necessary for shutting down this segment of the Anchorage Transmission pipeline. On January 8, 1998, OPS acknowledged receipt of and found acceptable Respondent's amended procedures identifying valves T1, T6, and T9 in the emergency shutdown procedures.

### *Current violation*

When the March 1998 explosion and fire occurred, involving Respondent's Kenai Transmission Line at ML&P Plant #1, Respondent again resorted to the two buried valves, T3 and T4, as key valves to isolate regulator station A-205-ML&P Plant #1. These are the same two buried valves for which Respondent was previously cited and which OPS previously identified as unacceptable because they are not accessible in a timely manner to minimize risk to life and property. Furthermore, CPF No. 57006M notified Respondent that the findings of violation would be considered prior offenses in any subsequent enforcement action taken against Respondent.

Now, Respondent argues that it took a "common sense" approach in deciding to expend hours excavating the two buried valves to shutdown the flow of gas instead of closing the valves designated in its emergency shutdown procedures. Nevertheless, Respondent admitted that it "was also aware that gas to the fire could also be turned off by closing valves T1, T6 and T9 located nearly ½ mile from the fire..." The true commonsense approach is to designate isolation valves that are accessible in a timely manner in emergency shutdown procedures. Then, follow the emergency shutdown procedures.

In the event of a gas leak or other emergency, it is imperative for Respondent to act quickly to prevent injury to persons or property. Respondent's engineer arrived at the scene at 10:45 a.m. Yet, it was not until 2:35 p.m. that excavation of the two buried valves was complete and the gas was eventually shutoff. Federal regulations require that Respondent establish, maintain and follow a plan for minimizing the hazard resulting from a gas pipeline emergency. The personnel responding to the emergency must have a plan of action to follow when they arrive at the site of an emergency. Although Respondent has written procedures, which designated emergency shutdown valves, Respondent failed to follow its emergency shutdown procedures, thereby endangering the lives of firefighters and others in the area. The risk to life and property was significantly increased by Respondent's failure to follow its plan to isolate gas flow into the pipeline section serving the power plant by using the three valves designated in its emergency plan. Accordingly, having reviewed the record and considered the assessment criteria, I assess Respondent a civil penalty of \$10,000, for violation of 49 C.F.R. §192.615 (a).

Payment of the civil penalty must be made within 20 days of service. Payment may be made by sending a certified check or money order (containing the CPF Number for this case) payable to "U.S. Department of Transportation" to the Federal Aviation Administration, Mike Monroney Aeronautical Center, Financial Operations Division (AMZ-320), P.O. Box 25770, Oklahoma City, OK 73125.

Federal regulations (49 C.F.R. § 89.21(b)(3)) also permit this payment to 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 \$10,000 civil penalty 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.

### **COMPLIANCE ORDER**

The Notice proposed a compliance order with regards to Items 1 and 2b. Respondent submitted information and an inspection was conducted during the week of April 22, 2002. The inspection confirmed that Respondent had addressed Item 1 in the Proposed Compliance Order.

Under 49 U.S.C. § 60118(a), each person who engages in the transportation of gas or who owns or operates a pipeline facility is required to comply with the applicable safety standards established under chapter 601. Pursuant to the authority of 49 U.S.C. § 60118(b) and 49 C.F.R. § 190.217, Respondent is hereby ordered to take the following actions to ensure compliance with the pipeline safety regulations applicable to Respondent's operations:

1. In regard to Item 2b of the Notice, violation of 49 C.F.R. § 192.615(c), implement and maintain an effective liaison with the local responders and appropriate public officials that are likely to be involved in natural gas emergency. The liaison activities shall include exercises and drills to demonstrate that effective coordination and preplanning has been achieved.
2. Within 30 days of receipt of this Order, submit confirmation and evidence of completion of these actions to:

Mr. Chris Hoidal, Director  
Office of Pipeline Safety, Western Region  
Research and Special Programs Administration  
12600 West Colfax Avenue, Suite A-250  
Lakewood, CO 80215

### **AMENDMENT OF PROCEDURES**

The Notice alleged inadequacies in Respondent's Operations, Maintenance and Emergencies Manual and proposed to require amendment of Respondent's procedures to comply with the requirements



of 49 C.F.R. § 192.615(c). Respondent did not contest the proposed Notice of Amendment. Accordingly, I find that Respondent's procedures are inadequate to ensure safe operation of its pipeline system. Pursuant to 49 U.S.C. § 60108(a) and 49 C.F.R. § 190.237, Respondent is ordered to make the following revisions to its procedures:

1. Amend your written emergency plan to establish an effective liaison program with fire, police and other public emergency response officials to:
  - a. Exchange information concerning responsibilities, resources, and capabilities with fire, police and other public emergency response officials to ensure an effective response to gas pipeline emergencies;
  - b. Acquaint fire, police and other public emergency response officials with your planned response to a gas pipeline emergency;
  - c. Engage in and plan for mutual assistance with public emergency response officials and coordinate your emergency response with that of public officials to minimize hazards to life and property;
  - d. Identify the types of gas pipeline emergencies for which public emergency response officials will receive notification.
2. Submit the amended procedures to the Western Regional Director, OPS within 30 days following receipt of this Order.

#### **WARNING ITEMS**

The Notice did not propose any penalty with respect to this item. The information that Respondent presented in its Response shows that Respondent has addressed Item 2c. However, Respondent is warned that should a violation come to the attention of OPS in a subsequent inspection, enforcement action will be taken.

**Item 2c** of the Notice alleged violation of 49 C.F.R. §192.617, failure to follow procedures for investigation of the causes of the multiple pipeline failures on March 1, 1998. The Notice further alleged that Respondent failed to excavate the failure location for examination of the failed pipeline.

Under 49 C.F.R. § 190.215, Respondent has a right to petition for reconsideration of this Final Order. 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 filing of the petition automatically stays the payment of any civil penalty assessed. All other terms of the order, including any required corrective action, shall remain in full effect unless the Associate Administrator, upon request, grants a stay. The terms and conditions of this Final Order are effective upon receipt.

Failure to comply with this Final Order may result in the assessment of civil penalties of up to \$25,000 per violation per day, or in the referral of the case for judicial enforcement.



Stacey Gerard  
Associate Administrator  
for Pipeline Safety

APR 16 2003

Date Issued