



U.S. Department
of Transportation

**Pipeline and
Hazardous Materials Safety
Administration**

8701 South Gessner, Suite 1110
Houston, TX 77074

NOTICE OF AMENDMENT

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

November 27, 2007

Mr. Mark Hurley
President
Shell Pipeline Company, L.P.
PO Box 2648
Houston, TX 77252-2648

CPF 4-2007-5045M

Dear Mr. Hurley:

On August 6-9, 2007, representatives of the Pipeline and Hazardous Materials Safety Administration (PHMSA) pursuant to Chapter 601 of 49 United States Code inspected Shell Pipeline Company L.P.'s (Shell) procedures for Operations and Maintenance in Houston, Texas.

On the basis of the inspection, PHMSA has identified the apparent inadequacies found within Shell'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. 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 commence, and appropriate parts shall be kept at locations where operations and maintenance activities are conducted.**
 - A. **§195.57 Filing offshore pipeline condition reports.**

(a) Each operator shall, within 60 days after completion of the inspection of all its underwater pipelines subject to §195.413(a), report the following information:

- (1) Name and principal address of operator.**
- (2) Date of report.**
- (3) Name, job title, and business telephone number of person submitting the report.**
- (4) Total number of miles (kilometers) of pipeline inspected.**
- (5) Length and date of installation of each exposed pipeline segment, and location; including, if available, the location according to the Minerals Management Service or state offshore area and block number tract.**
- (6) Length and date of installation of each pipeline segment, if different from a pipeline segment identified under paragraph (a)(5) of this section, that is a hazard to navigation, and the location; including, if available, the location according to the Minerals Management Service or state offshore area and block number tract.**

(b) The report shall be mailed to the Information Officer, Pipeline Hazardous Materials Safety Administration, Department of Transportation, 400 Seventh Street, SW., Washington, DC 20590.

Shell's procedures need to specify that offshore pipeline condition reports will be submitted to PHMSA.

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:

- (2) Gathering of data needed for reporting accidents under Subpart B of this part in a timely and effective manner.**

Shell's procedures do not adequately address the reporting criteria as required by 195.50. Specifically, one procedure did not require the reporting of a release of 5 gallons or more, when another procedure did. But neither procedure referenced the other. Also, the Facility Response Plan only required reporting releases on navigable waterways, when the regulations state any stream, lake, river, reservoir, or other similar body of water that violated applicable water quality standards. The procedures need to be revised to eliminate any confusion for the requirement of reporting releases of 5 gallons or more and that releases into any body of water that violates applicable water quality standards must be telephonically reported as required by 195.52.

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:

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

A. §195.205 Repair, alteration and reconstruction of aboveground breakout tanks that have been in service.

(b) After October 2, 2000, compliance with paragraph (a) of this section requires the following for the tanks specified:

(1) For tanks designed for approximately atmospheric pressure constructed of carbon and low alloy steel, welded or riveted, and non-refrigerated and tanks built to API Standard 650 or its predecessor Standard 12C, repair, alteration, and reconstruction must be in accordance with API Standard 653.

Shell's breakout tank procedures need to specify that tanks are repaired, altered or reconstructed according to API Standard 653.

B. §195.222 Welders: Qualification of welders.

(a) Each welder must be qualified in accordance with section 6 of API 1104 (incorporated by reference, see § 195.3) or section IX of the ASME Boiler and Pressure Vessel Code, (incorporated by reference, see § 195.3) except that a welder qualified under an earlier edition than listed in § 195.3 may weld but may not re-qualify under that earlier edition.

(b) No welder may weld with a welding process unless, within the preceding 6 calendar months, the welder has--

- (1) Engaged in welding with that process; and**
- (2) Had one welded tested and found acceptable under section 9 of API 1104 (incorporated by reference, see § 195.3).**

Shell stated during the inspection that they utilize ASME Section IX for welding offshore but *Section 3.10.8.b Welder Qualification* procedures only allow API qualifications. The procedures need to be revised to include that welders may also be qualified by using section IX of the ASME Boiler and Pressure Vessel Code. Also, Shell's procedures need to specify that within the preceding 6 calendar months welders must have at least one weld tested and found acceptable under Section 9, of API 1104.

C. §195.228 Welds and welding inspection: Standards of acceptability.

(b) The acceptability of a weld is determined according to the standards in Section 9 of API 1104. However, if a girth weld is unacceptable under those standards for a reason other than a crack, and if Appendix A to API 1104 (incorporated by reference, see § 195.3) applies to the weld, the acceptability of the weld may be determined under that appendix.

Shell's procedure in 3.10.8.d - Post Weld Inspection under Non-Destructive Inspection states that circumferential and longitudinal butt welds shall meet the acceptability Standards of API 1104, Section 5. Section 5 specifies destructive testing of welded joints. The procedures need to be revised to refer to section 9 of API 1104 for the acceptability standards for nondestructive testing.

D. §195.264 Aboveground breakout tanks.

- (b) After October 2, 2000, compliance with paragraph (a) of this section requires the following for the aboveground breakout tanks specified:
- (1) For tanks built to API Specification 12F, API Standard 620, and others (such as API Standard 650 or its predecessor Standard 12C), the installation of impoundment must be in accordance with the following sections of NFPA 30:
 - (i) Impoundment around a breakout tank must be installed in accordance with section 4.3.2.3.2

Shell's procedures need to be updated to reference section 4.3.2.3.2 of NFPA 30.

E. §195.264 Aboveground breakout tanks.

- (e) For normal/emergency relief venting and pressure/vacuum-relieving devices installed on aboveground breakout tanks after October 2, 2000, compliance with paragraph (d) of this section requires the following for the tanks specified:
- (2) Normal/emergency relief venting installed on atmospheric pressure tanks (such as those built to API Standard 650 or its predecessor Standard 12C) must be in accordance with API Standard 2000.

Shell's procedures need to specify that normal/emergency venting must be installed in accordance with API Standard 2000.

F. §195.302 General requirements.

- (a) Except as otherwise provided in this section and in §195.305(b), no operator may operate a pipeline unless it has been pressure tested under this subpart without leakage. In addition, no operator may return to service a segment of pipeline that has been replaced, relocated, or otherwise changed until it has been pressure tested under this subpart without leakage.

Shell stated during the inspection that all pipelines are to be pressure tested to Subpart E but did not include this in their written procedures. The procedures need to specify that all pipelines will be pressure tested to Subpart E without leakage.

G. §195.306 Test medium.

- (a) Except as provided in paragraph (b), (c), and (d) of this section, water must be used as the test medium.

(b) Except for offshore pipelines, liquid petroleum that does not vaporize rapidly may be used as the test medium if-

(1) The entire pipeline under test is outside of cities and other populated areas;

(2) Each building within 300 feet (91 meters) of the test section is unoccupied while the test pressure is equal to or greater than a pressure which produces a hoop stress of 50 percent of specified minimum yield strength;

(3) The test section is kept under surveillance by regular patrols during the test; and,

(4) Continuous communication is maintained along entire test section.

Shell's procedure 3.18.1.b - *Test Medium* allows for the use of crude oil as a test medium but did not specify any requirements of 195.306(b). The procedures need to be revised to specify the requirements of 195.306(b) when crude oil is used as a test medium.

H. §195.307 Pressure testing aboveground breakout tanks.

(d) For aboveground atmospheric pressure breakout tanks constructed of carbon and low alloy steel, welded or riveted, and non-refrigerated and tanks built to API Standard 650 or its predecessor Standard 12C that are returned to service after October 2, 2000, the necessity for the hydrostatic testing of repair, alteration, and reconstruction is covered in section 10.3 of API Standard 653.

Shell's procedures need to be updated to reference section 10.3 of API Standard 653 for hydrostatic testing.

I. §195.403 Emergency Response Training.

(b) At the intervals not exceeding 15 months, but at least once each calendar year, each operator shall:

(1) Review with personnel their performance in meeting the objectives of the emergency response training program set forth in paragraph (a) of this section; and

(2) Make appropriate changes to the emergency response training program as necessary to ensure that it is effective.

Shell's procedures need to specify that objectives of the emergency response training program will be reviewed with personnel and that appropriate changes will be made as necessary to ensure effectiveness of the program.

J. §195.403 Emergency Response Training.

(c) Each operator shall require and verify that its supervisors maintain a thorough knowledge of that portion of the emergency response procedures established under 195.402 for which they are responsible to ensure compliance.

Shell's procedures need provisions for requiring and verifying that supervisors maintain a thorough knowledge of the emergency response procedures for which they are responsible.

K. §195.404 Maps and Records.

(c) Each operator shall maintain the following records for the periods specified;

(1) The date, location, and description of each repair made to pipe shall be maintained for the useful life of the pipe.

(2) The date, location, and description of each repair made to parts of the pipeline other than pipe shall be maintained for at least 1 year.

(3) A record of each inspection and test required by this subpart shall be maintained for at least 2 years or until the next inspection or test is performed, whichever is longer.

Shell's procedures for maps and records need to reference the *EDMS* and include record retention schedule for repairs, inspections and tests made on the pipeline.

L. §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:

(2) The marker must state at least the following on a background of sharply contrasting color:

(i) The word "Warning," "Caution," or "Danger" followed by the words "Petroleum (or the name of the hazardous liquid transported) Pipeline", or "Carbon Dioxide Pipeline," all of which, except for markers in heavily developed urban areas, must be in letters at least 1 inch (25 millimeters) high with an approximate stroke of 1/4 inch (6.4 millimeters).

(ii) The name of the operator and a telephone number (including area code) where the operator can be reached at all times.

Shell's procedures need to specify the characteristics and information to be placed on line markers.

M. §195.420 Valve maintenance.

(a) Each operator shall maintain each valve that is necessary for the safe operation of its pipeline systems in good working order at all times.

Shell's procedures need to specify that each valve that is necessary for the safe operation of its pipeline system will be maintained in good working order at all times.

N. §195.422 Pipeline Repairs.

(a) Each operator shall, in repairing its pipeline systems, insure that the repairs are made in a safe manner and are made so as to prevent damage to persons or property.

Shell's procedures need to specify that repairs to breakout tanks will be made in a safe manner and to prevent damage to persons or property.

O. §195.428 Overpressure safety devices and overfill protection systems

(a) Except as provided in paragraph (b) of this section, each operator shall, at intervals not exceeding 15 months, but at least once each calendar year, or in the case of pipelines used to carry highly volatile liquids, at intervals not to exceed 7½ months, but at least twice each calendar year, inspect and test each pressure limiting device, relief valve, pressure regulator, or

other item of pressure control equipment to determine that it is functioning properly, is in good mechanical condition, and is adequate from the standpoint of capacity and reliability of operation for the service in which it is used.

Shell's procedures need to specify that each pressure limiting device, relief valve, pressure regulator or other item of pressure control will be tested for adequate capacity. Also the procedures need to specify that tank high level alarms on will be inspected once each calendar year, not to exceed 15 months.

P. §195.434 Signs.

Each operator must maintain signs visible to the public around each pumping station and breakout tank area. Each sign must contain the name of the operator and a telephone number (including area code) where the operator can be reached at all times.

Shell's procedures need to specify that signs visible to the public around each pumping station and breakout tank area will be installed and maintained.

Q. §195.436 Security of facilities.

Each operator shall provide protection for each pumping station and breakout tank area and other exposed facility (such as scraper traps) from vandalism and unauthorized entry.

Shell's procedures need to reference the *Distribution Security Standard* for security of facilities requirements.

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

Coating material for external corrosion control under Sec. 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.**

Shell's procedures need to reference *26 TG-001 Selection and Application of External Pipeline Coating* for external coating requirements.

S. §195.561 When must I inspect pipe coating used for external corrosion control?

- (a) You must inspect all external pipe coating required by Sec. 195.557 just prior to lowering the pipe into the ditch or submerging the pipe.**
- (b) You must repair any coating damage discovered.**

Shell's procedures need to reference *40 TS-002 Construction of Onshore Pipeline* and *40 TS-001 Construction of Offshore Pipeline* for inspection of coating requirements.

T. §195.579 What must I do to mitigate internal corrosion?

(b) Inhibitors. If you use corrosion inhibitors to mitigate internal corrosion, you must--

(2) Use coupons or other monitoring equipment to determine the effectiveness of the inhibitors in mitigating internal corrosion.

Shell's procedures need to specify requirements for determining optimal placement of coupons within the pipeline to get the most accurate information for internal corrosion activity.

U. §195.579 What must I do to mitigate internal corrosion?

(c) Removing pipe. Whenever you remove pipe from a pipeline, you must inspect the internal surface of the pipe for evidence of corrosion. If you find internal corrosion requiring corrective action under Sec. 195.585, you must investigate circumferentially and longitudinally beyond the removed pipe (by visual examination, indirect method, or both) to determine whether additional corrosion requiring remedial action exists in the vicinity of the removed pipe.

Shell's procedures need to specify that when pipe is removed and internal corrosion requiring corrective action is found, you must investigate circumferentially and longitudinally beyond the removed pipe to determine whether additional corrosion requiring remedial action exists in the vicinity of the removed pipe.

4. §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:

(4) Determining which pipeline facilities are located in areas that would require an immediate response by the operator to prevent hazards to the public if the facilities failed or malfunctioned.

Shell's procedures need to identify areas where pipeline facilities are located that would require immediate response to prevent hazards to the public if their facilities failed or malfunctioned.

5. §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:

(7) Starting up and shutting down any part of the pipeline in a manner designed to assure operation within the limits prescribed by paragraph §195.406, consider the

hazardous liquid or carbon dioxide in transportation, variations in altitude along the pipeline, and pressure monitoring and control devices.

Shell's procedures need to specify that during start up and shut down of the pipeline pressures will be maintained within their operating limits.

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:

(8) In the case of pipeline that is not equipped to fail safe, monitoring from an attended location pipeline pressure during startup until steady state pressure and flow conditions are reached and during shut-in to assure operation within limits prescribed by §195.406.

(9) In the case of facilities not equipped to fail safe that are identified under §195.402(c)(4) or that control receipt and delivery of the hazardous liquid or carbon dioxide, detecting abnormal operating conditions by monitoring pressure, temperature, flow or other appropriate operational data and transmitting this data to an attended location.

Shell's procedures need to identify which pipeline facilities are equipped to fail safe or not equipped to fail safe.

7. §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 to determine the effectiveness of the procedures used in normal operation and maintenance and taking corrective action where deficiencies are found.

Shell needs to include operator work review requirements in their local operating procedures to insure the effectiveness of the procedures and take corrective action if any deficiencies are found.

8. §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.

Shell's procedures need to reference their hurricane response plan in the Facility Response Plan.

9. **§195.402 Procedural manual for operations, maintenance, and emergencies.**

(f) Safety-related condition reports. The manual required by paragraph (a) of this section must include instructions enabling personnel who perform operation and maintenance activities to recognize conditions that potentially may be safety-related conditions that are subject to the reporting requirements of §195.55.

Shell's Safety Related Condition procedures on page 3.2-2 states that "It is SPLCs experience that the extent of an anomaly indicated by an inline inspection device cannot be determined until the pipe is excavated and first evaluated by visual or various NDT methods. Therefore, the condition is not discovered as a safety related condition until the pipe is excavated and examined. This is an incorrect interpretation of the code. The Amendment 195-42, (AMDT 195-42, Docket PS-100) states "Discovery of a potentially reportable condition occurs when an operator's representative has adequate information from which to conclude the probable existence of a reportable condition." The procedures need to be revised to reflect that discovery of a safety related condition occurs when adequate information (i.e. the preliminary internal inspection report, gathered and integrated information from other inspections, or the final internal inspection report) is received and requirements for reporting a safety related condition are found to exist. Also, procedures need to include requirements for reporting safety related condition reports to PHMSA as required by 195.56(b).

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 30 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 4-2007-5045M** and, for each document you submit, please provide a copy in electronic format whenever possible.

Sincerely,

A handwritten signature in black ink, appearing to read "R. M. Seeley". The signature is written in a cursive style with a large initial "R" and "S".

R. M. Seeley
Director, Southwest Region
Pipeline and Hazardous
Materials Safety Administration

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