



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

March 12, 2008

Kevin C. Weyer
President
Dow Pipeline Company
1000 County Road 340
Angleton, Texas 77515

CPF 4-2008-1002M

Dear Mr. Weyer:

From October 15 - 19 and 22 - 24, 2007, representatives of the Pipeline and Hazardous Materials Safety Administration (PHMSA) pursuant to Chapter 601 of United States Code inspected Dow Pipeline Company (Dow) procedures for Gas and Liquid Integrity Management (IM) Plans in Angleton, Texas.

On the basis of the inspection, PHMSA has identified the apparent inadequacies found within Dow's plans or procedures, as described below:

- 1. §192.911 What are the elements of an integrity management program? An operator's initial integrity management program begins with a framework (see §192.907) and evolves into a more detailed and comprehensive integrity management program, as information is gained and incorporated into the program. An operator must make continual improvements to its program. The initial program framework and subsequent program must, at minimum, contain the following elements. (When indicated, refer to ASME/ANSI B31.8S (incorporated by reference, see §192.7) for more detailed information on the listed element.)**
 - (I) A quality assurance process as outlined in ASME/ANSI B31.8S, section 12.**

Dow procedures must be revised to better address implementation and review aspects to ensure consistent application and results. Three particular areas identified were the Triennial

Evaluation, Dig Evaluations, and Hydrostatic Retesting Schedule changes associated with Management of Change.

2. §192.915 What knowledge and training must personnel have to carry out an integrity management program?

(a) Supervisory personnel. The integrity management program must provide that each supervisor whose responsibilities relate to the integrity management program possesses and maintains a thorough knowledge of the integrity management program and of the elements for which the supervisor is responsible. The program must provide that any person who qualifies as a supervisor for the integrity management program has appropriate training or experience in the area for which the person is responsible.

(b) Persons who carry out assessments and evaluate assessment results. The integrity management program must provide criteria for the qualification of any person--

(1) Who conducts an integrity assessment allowed under this subpart; or

(2) Who reviews and analyzes the results from an integrity assessment and evaluation; or

(3) Who makes decisions on actions to be taken based on these assessments.

(c) Persons responsible for preventive and mitigative measures. The integrity management program must provide criteria for the qualification of any person--

(1) Who implements preventive and mitigative measures to carry out this subpart, including the marking and locating of buried structures; or

(2) Who directly supervises excavation work carried out in conjunction with an integrity assessment.

and,

§195.452

(b) What program and practices must operators use to manage pipeline integrity? Each operator of a pipeline covered by this section must:

(4) Include in the program a framework that –

(i) Addresses each element of the integrity management program under paragraph (f) of this section, including continual integrity assessment and evaluation under paragraph (j) of this section; and

(ii) Initially indicates how decisions will be made to implement each element.

The Dow's procedures must be revised to better address specific training requirements for employees assigned to locate and document anomaly investigations. Also, Dow's OM&E O-16 must be revised to better address the training and qualification for personnel involved with performing risk analysis.

3. §192.917 How does an operator identify potential threats to pipeline integrity and use the threat identification in its integrity program?

(a) Threat identification. An operator must identify and evaluate all potential threats to each covered pipeline segment. Potential threats that an operator must consider include, but are not limited to, the threats listed in ASME/ANSI B31.8S (incorporated by reference, see § 192.7), section 2, which are grouped under the following four categories:

- (1) Time dependent threats such as internal corrosion, external corrosion, and stress corrosion cracking;**
- (2) Static or resident threats, such as fabrication or construction defects;**
- (3) Time independent threats such as third party damage and outside force damage; and**
- (4) Human error.**

Dow's procedures must be revised to provide better documentation on how the Risk Model evaluates interactive threats. Dow must also revise its procedure to provide better documentation in the appropriate O&Ms related to the potential exclusion of threats related to internal corrosion, long seam problems, and both near neutral and high pH SCC.

4. §192.917 (See above.)

(b) Data gathering and integration. To identify and evaluate the potential threats to a covered pipeline segment, an operator must gather and integrate existing data and information on the entire pipeline that could be relevant to the covered segment. In performing this data gathering and integration, an operator must follow the requirements in ASME/ANSI B31.8S, section 4. At a minimum, an operator must gather and evaluate the set of data specified in Appendix A to ASME/ANSI B31.8S, and consider both on the covered segment and similar non-covered segments, past incident history, corrosion control records, continuing surveillance records, patrolling records, maintenance history, internal inspection records and all other conditions specific to each pipeline.

Dow must revise its procedures to better document the collection of all the data sources identified in Table 2 from B31.8S. Dow must also revise its procedures to provide better documentation on how and when they validate the data related to specific locations on their pipelines and how the risk model uses conservative numbers when data is not known or available.

5. §192.917 (See above.)

(c) Risk assessment. An operator must conduct a risk assessment that follows ASME/ANSI B31.8S, section 5, and considers the identified threats for each covered segment. An operator must use the risk assessment to prioritize the covered segments for the baseline and continual reassessments (§§192.919, 192.921, 192.937), and to determine what additional preventive and mitigative measures are needed (§192.935) for the covered segment.

Dow must revise its procedures to provide better documentation on how it validates that risk assessment results are logical and consistent with the operator's and industry's experience. (PIM 3.08)

6. **§192.921** How is the baseline assessment to be conducted?

(a) **Assessment methods.** An operator must assess the integrity of the line pipe in each covered segment by applying one or more of the following methods depending on the threats to which the covered segment is susceptible. An operator must select the method or methods best suited to address the threats identified to the covered segment (See §192.917).

(4) Other technology that an operator demonstrates can provide an equivalent understanding of the condition of the line pipe. An operator choosing this option must notify the Office of Pipeline Safety (OPS) 180 days before conducting the assessment, in accordance with § 192.949. An operator must also notify a State or local pipeline safety authority when either a covered segment is located in a State where OPS has an interstate agent agreement, or an intrastate covered segment is regulated by that State.

§195.452

(j) What is a continual process of evaluation and assessment to maintain a pipeline's integrity?

(5) **Assessment methods.** An operator must assess the integrity of the line pipe by any of the following methods. The methods an operator selects to assess low frequency electric resistance welded pipe or lap welded pipe susceptible to longitudinal seam failure must be capable of assessing seam integrity and of detecting corrosion and deformation anomalies.

(iv) Other technology that the operator demonstrates can provide an equivalent understanding of the condition of the line pipe. An operator choosing this option must notify OPS 90 days before conducting the assessment, by sending a notice to the address or facsimile number specified in paragraph (m) of this section.

Dow must revise its procedures to ensure that when Guided Wave tools and technologies are used at cased crossings, Dow submits for the appropriate "other technology" requirements. Dow indicated they did not plan to use "other technology" but their plans previously submitted for cased crossings did not include the use of Guided Wave, which currently is the only acceptable method to evaluate cased crossings.

7. **§ 192.925** What are the requirements for using External Corrosion Direct Assessment (ECDA)?

(b) **General requirements.** An operator that uses direct assessment to assess the threat of external corrosion must follow the requirements in this section, in ASME/ANSI B31.8S (incorporated by reference, see §192.7), section 6.4, and in NACE RP 0502–2002 (incorporated by reference, see §192.7). An operator must develop and implement a direct assessment plan that has procedures addressing preassessment, indirect examination, direct examination, and post-assessment. If the ECDA detects pipeline coating damage, the operator must also integrate the data from the ECDA with other information from the data integration (§192.917(b)) to evaluate the covered segment for the threat of third party damage, and to address the threat as required by §192.917(e)(1).

§ 195.588 What standards apply to direct assessment?

(b) The requirements for performing external corrosion direct assessment are as follows:

(1) General . You must follow the requirements of NACE Standard RP0502–2002 (incorporated by reference, see §195.3). Also, you must develop and implement an ECDA plan that includes procedures addressing pre-assessment, indirect examination, direct examination, and post-assessment.

Dow must revise its procedures to provide detailed steps for the use of ACVG, DCVG, and PCM.

8. § 192.925 What are the requirements for using External Corrosion Direct Assessment (ECDA)?

(b) General requirements. An operator that uses direct assessment to assess the threat of external corrosion must follow the requirements in this section, in ASME/ANSI B31.8S (incorporated by reference, see §192.7), section 6.4, and in NACE RP 0502–2002 (incorporated by reference, see §192.7). An operator must develop and implement a direct assessment plan that has procedures addressing preassessment, indirect examination, direct examination, and post-assessment. If the ECDA detects pipeline coating damage, the operator must also integrate the data from the ECDA with other information from the data integration (§192.917(b)) to evaluate the covered segment for the threat of third party damage, and to address the threat as required by §192.917(e)(1).

(1) Preassessment. In addition to the requirements in ASME/ANSI B31.8S section 6.4 and NACE RP 0502–2002, section 3, the plan's procedures for preassessment must include—

(i) Provisions for applying more restrictive criteria when conducting ECDA for the first time on a covered segment; and
192.925 b.2.i, 192.925 b.3.i, 192.927 c.5.ii

Dow must revise its procedures to ensure that the more restrictive requirements are sufficiently documented in order to determine exactly what are the additional requirements for both the NACE standard and the regulation.

9. § 192.7 What documents are incorporated by reference partly or wholly in this part?

(a) Any documents or portions thereof incorporated by reference in this part are included in this part as though set out in full. When only a portion of a document is referenced, the remainder is not incorporated in this part.

§ 195.3 Incorporation by reference.

(a) Any document or portion thereof incorporated by reference in this part is included in this part as though it were printed in full. When only a portion of a document is referenced, then this part incorporates only that referenced portion of the document and the remainder is not incorporated. Applicable editions are listed in paragraph (c) of this section in parentheses following the title of the referenced material. Earlier editions listed in previous editions of this section may be used for components manufactured, designed, or installed in accordance with those earlier editions at the time they were listed. The user must refer to the appropriate previous edition of 49 CFR for a listing of the earlier editions.

Dow must revise its procedures changing all 'shoulds' to 'shalls' in order to ensure that all standards incorporated by reference are fully implemented. Where it is not possible to implement the standard completely, Dow must provide documentation to ensure that its alternative actions provide an equivalent level of safety and when actions cannot be implemented, it must have documented technical justifications for not taking those actions.

10. § 192.927 What are the requirements for using Internal Corrosion Direct Assessment (ICDA)?

(c) The ICDA plan. An operator must develop and follow an ICDA plan that provides for preassessment, identification of ICDA regions and excavation locations, detailed examination of pipe at excavation locations, and post-assessment evaluation and monitoring.

(3) Identification of locations for excavation and direct examination. An operator's plan must identify the locations where internal corrosion is most likely in each ICDA region. In the location identification process, an operator must identify a minimum of two locations for excavation within each ICDA Region within a covered segment and must perform a direct examination for internal corrosion at each location, using ultrasonic thickness measurements, radiography, or other generally accepted measurement technique. One location must be the low point (e.g., sags, drips, valves, manifolds, dead-legs, traps) within the covered segment nearest to the beginning of the ICDA Region. The second location must be further downstream, within a covered segment, near the end of the ICDA Region. If corrosion exists at either location, the operator must—

(i) Evaluate the severity of the defect (remaining strength) and remediate the defect in accordance with §192.933;

(ii) As part of the operator's current integrity assessment either perform additional excavations in each covered segment within the ICDA region, or use an alternative assessment method allowed by this subpart to assess the line pipe in each covered segment within the ICDA region for internal corrosion; and

(iii) Evaluate the potential for internal corrosion in all pipeline segments (both covered and non-covered) in the operator's pipeline system with similar characteristics to the ICDA region containing the covered segment in which the corrosion was found, and as appropriate, remediate the conditions the operator finds in accordance with §192.933.

Dow must revise its excavation requirements to ensure that the proper number of digs are conducted in each HCA based on all of the applicable ICDA regions, including the minimum number required.

11. § 192.947 What records must an operator keep?

An operator must maintain, for the useful life of the pipeline, records that demonstrate compliance with the requirements of this subpart. At minimum, an operator must maintain the following records for review during an inspection.

Dow must revise its procedures to ensure retention times are consistent with the regulations. (Gas Plan XII)

12. § 195.310 Records.

(b) The record required by paragraph (a) of this section must include:

- (8) An explanation of any pressure discontinuities, including test failures, that appear on the pressure recording charts.

Dow must revise its procedures to document the testing requirements associated with hydrostatic test failures.

13. §195.452 Pipeline integrity management in high consequence areas.

(a) Which pipelines are covered by this section? This section applies to each hazardous liquid pipeline and carbon dioxide pipeline that could affect a high consequence area, including any pipeline located in a high consequence area unless the operator effectively demonstrates by risk assessment that the pipeline could not affect the area. (Appendix C of this part provides guidance on determining if a pipeline could affect a high consequence area.) Covered pipelines are categorized as follows:

Appendix C to Part 195—Guidance for Implementation of an Integrity Management Program

B. The rule requires an operator to include a process in its program for identifying which pipeline segments could affect a high consequence area and to take measures to prevent and mitigate the consequences of a pipeline failure that could affect a high consequence area. (See §§195.452 (f) and (i).) Thus, an operator will need to consider how each pipeline segment could affect a high consequence area. The primary source for the listed risk factors is a US DOT study on instrumented Internal Inspection devices (November 1992). Other sources include the National Transportation Safety Board, the Environmental Protection Agency and the Technical Hazardous Liquid Pipeline Safety Standards Committee. The following list provides guidance to an operator on both the mandatory and additional factors:

- (9) The diameter of the pipeline, the potential release volume, and the distance between the isolation points.
(10) Potential physical pathways between the pipeline and the high consequence area.

Dow must revise its buffer information from its plan to ensure proper correlation with Appendix C.

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 4-2008-1002M** and, for each document you submit, please provide a copy in electronic format whenever possible.

Sincerely,



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

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