



STATE OF WASHINGTON
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION
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CERTIFIED MAIL

October 24, 2014

Bruce Reed
VP of Operations
Tidewater Terminal Company
6305 NW Old Lower River Road
Vancouver, WA 98660

Dear Mr. Reed:

RE: 2014 Hazardous Liquid Pipeline Integrity Management Inspection - Tidewater Terminal Company – (Insp. No. 5829)

Staff from the Washington Utilities and Transportation Commission (staff) conducted a hazardous liquid inspection from June 16 - 19, 2014 at the Tidewater Terminal Company (Tidewater), Snake River Terminal facility.

The inspection included 127 questions from the Pipeline and Hazardous Materials Safety Administration (PHMSA) Inspection Assistance (IA) modules for Assessment and Repair, Integrity Management, and Reporting.

Tidewater operates three inbound/outbound pipelines between Tidewater and Tesoro Logistics Northwest Terminal, and a four-inch diameter pipeline from Tidewater to the Burlington Northern Railroad (BNRR) yard. Tidewater acquired the BNRR diesel line (3.5 miles) in 2012 from NuStar Energy.

In 1995, under the ownership of Kanab (Kansas-Nebraska) Pipeline about 6,200 linear feet of the line was relocated for a new rail spur. Future integrity management projects in 2015 at the three inbound/outbound pipelines include the installation of three motor operated valves and completing an in-line inspection (ILI). An ILI run of the BNRR diesel line is expected to be completed in 2017.

Our inspection found 22 probable violations as noted in the enclosed report. Each item is referenced to the inspection form with brackets { } around the IA question number, module and section titles.



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Your response needed

Please review the attached report and respond in writing by December 9, 2014. The response should include how and when you plan to bring the probable violations into full compliance.

What happens after you respond to this letter?

The attached report presents staff's decision on probable violations and does not constitute a finding of violation by the commission at this time.

After you respond in writing to this letter, there are several possible actions the commission, in its discretion, may take with respect to this matter. For example, the commission may:

- Issue an administrative penalty under RCW 81.88.040, or;
- Institute a complaint, seeking monetary penalties, changes in the company's practices, or other relief authorized by law, and justified by the circumstances, or;
- Consider the matter resolved without further commission action.

We have not yet decided whether to pursue a complaint or penalty in this matter. Should an administrative law judge decide to pursue a complaint or penalty, your company will have an opportunity to present its position directly to the commissioners.

If you have any questions or if we may be of any assistance, please contact Al Jones at (360) 664-1321. Please refer to the subject matter described above in any future correspondence pertaining to this inspection.

Sincerely,



David D. Lykken
Pipeline Safety Director

Enclosure

cc: Bill Collins, Director EHS&S, Tidewater
Mark Davis, Terminal Operations Supervisor, Tidewater
Brian Rankin, Quality and Compliance Manager, Tidewater
Stephanie Syring, Environmental Manager, Tidewater
John Sherman, General Manager, Tidewater

**UTILITIES AND TRANSPORTATION COMMISSION
2014 Hazardous Liquid Pipeline Integrity Management Inspection
Tidewater Terminal Company--Snake River Terminal**

The following probable violations of Title 49 CFR Part 195 were noted as a result of the 2014 integrity management inspection at the Tidewater Terminal Company, Snake River Terminal.

PROBABLE VIOLATIONS

1. **49 CFR §195.452 Pipeline Integrity Management in High Consequence Area**
{IA Record Question #4 for Repair Criteria – Inclusion of All Repair Criteria}

- (h) *What actions must an operator take to address integrity issues?*
- (4) *Special requirements for scheduling remediation*
 - (iii) *180-day conditions. Except for conditions listed in paragraph (h)(4)(i) or (ii) of this section, an operator must schedule evaluation and remediation of the following within 180 days of discovery of the condition:*
 - (I) *A gouge or groove greater than 12.5% of nominal wall.*

Finding(s):

From the review of the results of integrity assessments and remediation projects, the ILI vendor did not categorize a defect with a gouge of 48% wall loss as a 180-day condition for remediation.

2. **49 CFR §195.452 Pipeline Integrity Management in High Consequence Area**
{IA Observation Question #5 for Repair Criteria – Inclusion of All Repair Criteria}

- (h) *What actions must an operator take to address integrity issues?*
- (4) *Special requirements for scheduling remediation*
 - (iii) *180-day conditions. Except for conditions listed in paragraph (h)(4)(i) or (ii) of this section, an operator must schedule evaluation and remediation of the following within 180 days of discovery of the condition:*
 - (I) *A gouge or groove greater than 12.5% of nominal wall.*

Finding(s):

Document observed for pipe section cut-out for the gouge of 48% wall loss exceeded the 180-day condition for remediation.

3. **49 CFR §195.452 Pipeline Integrity Management in High Consequence Area**
{IA Record Question #8 for Repair Criteria – Categorization of Defects}

- (f) *What are the elements of an integrity management program? An integrity management program begins with the initial framework. An operator must continually change the program to reflect operating experience, conclusions*

drawn from results of the integrity assessments, and other maintenance and surveillance data, and evaluation of consequences of a failure on the high consequence area. An operator must include, at minimum, each of the following elements in its written integrity management program:

- (4) Criteria for remedial actions to address integrity issues raised by the assessment methods and information analysis (see paragraph (h) of this section).*

Finding(s):

Records did not demonstrate that Tidewater categorized anomalies in accordance with §195.452(h)(4). The MFL tool discovery was August 11, 2010, and with a gouge measuring 48% wall loss was not remediated until May 25, 2011.

4. **49 CFR §195.452 Pipeline Integrity Management in High Consequence Area**
{IA Record Question #10 for Repair Criteria – IM Schedule}

- (h) What actions must an operator take to address integrity issues?*
 - (3) Schedule for evaluation and remediation. An operator must complete remediation of a condition according to a schedule prioritizing the conditions for evaluation and remediation. If an operator cannot meet the schedule for any condition, the operator must explain the reasons why it cannot meet the schedule and how the changed schedule will not jeopardize public safety or environmental protection.*

Finding(s):

Tidewater records did not provide justification for a gouge with 48% metal loss that was not repaired in 180 days.

5. **49 CFR §195.452 Pipeline Integrity Management in High Consequence Area**
{IA Procedure Question #9 for Repair Criteria – Pressure Reduction}

- (h) What actions must an operator take to address integrity issues?*
 - (1) General requirements. An operator must take prompt action to address all anomalous conditions the operator discovers through the integrity assessment or information analysis. In addressing all conditions, an operator must evaluate all anomalous conditions and remediate those that could reduce a pipeline's integrity. An operator must be able to demonstrate that the remediation of the condition will ensure the condition is unlikely to pose a threat to the long-term integrity of the pipeline. An operator must comply with §195.422 when making a repair.*
 - (4) Special requirements for scheduling remediation - (i) Immediate repair conditions. An operator's evaluation and remediation schedule must provide for immediate repair conditions. To maintain safety, an operator must temporarily reduce operating pressure or shut down the pipeline until the operator completes the repair of these conditions. An operator must calculate the temporary reduction in operating pressure using the*

formula in Section 451.6.2.2 (b) of ANSI/ASME B31.4 (incorporated by reference, see § 195.3).

Finding(s):

Tidewater's procedure (IMP Manual Section 1.2) does not specify a reduction in normal operating pressure when immediate repair conditions are discovered.

6. **49 CFR §195.452 Pipeline Integrity Management in High Consequence Area**
{IA Procedure Question #6 for In-Line Inspection – IMP Assessment Methods}

(f) *What are the elements of an integrity management program? An integrity management program begins with the initial framework. An operator must continually change the program to reflect operating experience, conclusions drawn from results of the integrity assessments, and other maintenance and surveillance data, and evaluation of consequences of a failure on the high consequence area. An operator must include, at minimum, each of the following elements in its written integrity management program:*

(3) *An analysis that integrates all available information about the integrity of the entire pipeline and the consequences of a failure;*

Finding(s):

Tidewater IMP procedure (IMP Manual Section 3.3) needs to identify all potential threats to the Burlington Northern Railroad (BNRR) pipeline including shorted casing, ground fault from AC current, train derailment, etc.

7. **49 CFR §195.452 Pipeline Integrity Management in High Consequence Area**
{IA Procedure Question #10 for In-Line Inspection – Validation of ILI Results}

(f) *What are the elements of an integrity management program? An integrity management program begins with the initial framework. An operator must continually change the program to reflect operating experience, conclusions drawn from results of the integrity assessments, and other maintenance and surveillance data, and evaluation of consequences of a failure on the high consequence area. An operator must include, at minimum, each of the following elements in its written integrity management program:*

(4) *Criteria for remedial actions to address integrity issues raised by the assessment methods and information analysis.*

Finding(s):

Tidewater IMP procedure (IMP Manual Section 7.3) does not provide a process for validating tool performance to guarantee the tool performance criteria were met.

8. **49 CFR §195.452 Pipeline Integrity Management in High Consequence Area**
{IA Procedure Question #14 for In-Line Inspection – ILI Acceptance Criteria}

- (j) *What is a continual process of evaluation and assessment to maintain a pipeline's integrity? –*
- (1) *General. After completing the baseline integrity assessment, an operator must continue to assess the line pipe at specified intervals and periodically evaluate the integrity of each pipeline segment that could affect a high consequence area.*
 - (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.*
 - (i) *Internal inspection tool or tools capable of detecting corrosion and deformation anomalies including dents, gouges and grooves;*

Finding(s):

Tidewater IMP procedure does not include acceptance criteria for a successful ILI run such as: missing data, lost sensor channels, distance inaccuracy, velocity overruns or under runs, and physical damage to the sensors.

9. **49 CFR §195.452 Pipeline Integrity Management in High Consequence Area**
{IA Record Question #15 for In-Line Inspection – ILI Acceptance Criteria}

- (c) *What must be in the baseline assessment plan?*
- (1) *An operator must include each of the following elements in its written baseline assessment plan:*
 - (i) *The methods selected to assess the integrity of the line pipe. 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.*
 - (A) *Internal inspection tool or tools capable of detecting corrosion and deformation anomalies including dents, gouges and grooves;*

Finding(s):

Tidewater records did not include ILI tool acceptance criteria for evaluating vendor's data including physical damage to the sensors, lost sensor channels during data collection, distance inaccuracy, velocity over runs or under runs, etc.

10. **49 CFR §195.452 Pipeline Integrity Management in High Consequence Area**
{IA Record Question #16 for In-Line Inspection – Quality of ILI Data Analysis}

(L) *What records must be kept?*

(1) *An operator must maintain for review during an inspection:*

(ii) *Documents to support the decisions and analyses, including any modifications, justifications, variances, deviations and determinations made, and actions taken, to implement and evaluate each element of the integrity management program listed in paragraph (f) of this section.*

Finding(s):

Tidewater records did not include information to demonstrate the accuracy of the ILI tool run.

11. **49 CFR §195.452 Pipeline Integrity Management in High Consequence Area**
{IA Record Question #19 for In-Line Inspection – Industry Practices}

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

(6) *Follow recognized industry practices in carrying out this section, ...*

Finding(s):

Tidewater records did not include any reference to recognized industry practice standards that the ILI vendor used such as API 1160, NACE SP0502 or NACE RP0102.

12. **49 CFR §195.452 Pipeline Integrity Management in High Consequence Area**
{IA Procedure Question #12 for Repair Methods & Practices – Crack Repair Criteria}

(f) *What are the elements of an integrity management program? An integrity management program begins with the initial framework. An operator must continually change the program to reflect operating experience, conclusions drawn from results of the integrity assessments, and other maintenance and surveillance data, and evaluation of consequences of a failure on the high consequence area. An operator must include, at minimum, each of the following elements in its written integrity management program:*

(3) *An analysis that integrates all available information about the integrity of the entire pipeline and the consequences of a failure (see paragraph (g) of this section);*

Finding(s):

Tidewater's procedure (IMP Manual Section 1.6) does not exclude SCC as a threat or include remedial actions for SCC. Data is not gathered to evaluate potential threats whenever the pipeline is exposed.

13. **49 CFR §195.452 Pipeline Integrity Management in High Consequence Area**
{IA Record Question #13 for Repair Methods & Practices – Crack Repair Criteria}

- (g) *What is an information analysis? In periodically evaluating the integrity of each pipeline segment (paragraph (j) of this section), an operator must analyze all available information about the integrity of the entire pipeline and the consequences of a failure.*

Finding(s):

Tidewater does not have records for excluding SCC as a threat or for evaluating the exposed pipeline for the threat of SCC.

14. **49 CFR §195.452 Pipeline Integrity Management in High Consequence Area**
{IA Procedure Question #14 for Repair Methods & Practices – NDE for Cracks}

- (f) *What are the elements of an integrity management program? An integrity management program begins with the initial framework. An operator must continually change the program to reflect operating experience, conclusions drawn from results of the integrity assessments, and other maintenance and surveillance data, and evaluation of consequences of a failure on the high consequence area. An operator must include, at minimum, each of the following elements in its written integrity management program:*

- (4) *Criteria for remedial actions to address integrity issues raised by the assessment methods and information analysis (see paragraph (h) of this section)*

Finding(s):

Tidewater does not have a procedure for evaluating the exposed pipeline for the threat of crack like features or SCC.

15. **49 CFR §195.452 Pipeline Integrity Management in High Consequence Area**
{IA Record Question #15 for Repair Methods & Practices – NDE for Cracks}

- (L) *What records must be kept?*
- (I) *An operator must maintain for review during an inspection:*
- (ii) *Documents to support the decisions and analyses, including any modifications, justifications, variances, deviations and determinations made, and actions taken, to implement and evaluate each element of the integrity management program listed in paragraph (f) of this section.*

Finding(s):

Tidewater does not have records for evaluating the exposed pipeline for the threat of crack like features or SCC. Tidewater has not provided evidence to eliminate SCC as a threat. SCC needs to be assumed as a threat until Tidewater provides evidence to the contrary.

16. **49 CFR §195.452 Pipeline Integrity Management in High Consequence Area**
{IA Record Question #6 for Continual Evaluation & Assessment}

- (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.*

Finding(s):

Tidewater does not have records to determine if their pipelines are susceptible to cracks, SCC or has exhibited crack-like features. If the threat of SCC has not been determined, it needs to be assumed that SCC is a threat. If SCC is a threat, an appropriate assessment must be done.

17. **49 CFR §195.452 Pipeline Integrity Management in High Consequence Area**
{IA Procedure Question #13 for HCA Air Dispersion Analysis}

- (f) *What are the elements of an integrity management program? An integrity management program begins with the initial framework. An operator must continually change the program to reflect operating experience, conclusions drawn from results of the integrity assessments, and other maintenance and surveillance data, and evaluation of consequences of a failure on the high consequence area. An operator must include, at minimum, each of the following elements in its written integrity management program:*
- (1) *A process for identifying which pipeline segments could affect a high consequence area;*

Finding(s):

Tidewater does not have a procedure for air dispersion analysis for volatile liquid vapor release scenarios.

18. **49 CFR §195.452 Pipeline Integrity Management in High Consequence Area**
{IA Record Question #14 for HCA Air Dispersion Analysis}

- (f) *What are the elements of an integrity management program? An integrity management program begins with the initial framework. An operator must continually change the program to reflect operating experience, conclusions drawn from results of the integrity assessments, and other maintenance and surveillance data, and evaluation of consequences of a failure on the high consequence area. An operator must include, at minimum, each of the following elements in its written integrity management program:*
- (1) *A process for identifying which pipeline segments could affect a high consequence area;*

Finding(s):

Tidewater has not developed records of air analysis for dispersion of volatile liquid vapor releases.

19. **49 CFR §195.452 Pipeline Integrity Management in High Consequence Area**
{IA Procedure Question #6 for Preventive & Mitigative Measures – Decision Basis}

- (i) *What preventive and mitigative measures must an operator take to protect the high consequence area?*
(2) *Risk analysis criteria. In identifying the need for additional preventive and mitigative measures, an operator must evaluate the likelihood of a pipeline release occurring and how a release could affect the high consequence area. This determination must consider all relevant risk factors, ...*

Finding(s):

Tidewater procedure (IMP Manual Section 3.0) needs to consider input from operations, maintenance, engineering, and corrosion control to be considered in decision-making process.

20. **49 CFR §195.452 Pipeline Integrity Management in High Consequence Area**
{IA Record Question #7 for Preventive & Mitigative Measures – Decision Basis}

- (i) *What preventive and mitigative measures must an operator take to protect the high consequence area?*
(2) *Risk analysis criteria. In identifying the need for additional preventive and mitigative measures, an operator must evaluate the likelihood of a pipeline release occurring and how a release could affect the high consequence area. This determination must consider all relevant risk factors, ...*

Finding(s):

Tidewater needs to develop records of input from operations, maintenance, engineering, and corrosion control to be considered in decision-making process.

21. **49 CFR §195.452 Pipeline Integrity Management in High Consequence Area**
{IA Procedure Question #3 for Risk Analysis – SCC Risk}

- (g) *What is an information analysis? In periodically evaluating the integrity of each pipeline segment (paragraph (j) of this section), an operator must analyze all available information about the integrity of the entire pipeline and the consequences of a failure.*

Finding(s):

Tidewater does not have a procedure for assessment processes to determine if SCC is a threat on the pipeline. Records do not eliminate SCC as a threat.

22. **49 CFR §195.452 Pipeline Integrity Management in High Consequence Area**
{IA Record Question #4 for Risk Analysis – SCC Risk}

- (g) *What is an information analysis? In periodically evaluating the integrity of each pipeline segment (paragraph (j) of this section), an operator must analyze all available information about the integrity of the entire pipeline and the consequences of a failure.*

Finding(s):

The SCC threat has not been incorporated into Tidewater's risk assessment. Tidewater has not determined whether SCC is a threat to the system.