

VIA ELECTRONIC MAIL TO: [Gregory.Ochs@dot.gov](mailto:Gregory.Ochs@dot.gov)

November 11, 2020

Mr. Greg Ochs  
Director, Central Region, OPS  
Pipeline and Hazardous Materials Safety Administration  
901 Locust Street, Suite 480  
Kansas City, MO 64106

**RE: CPF 3-2020-5022M - NOTICE OF AMENDMENT (Oct 14, 2020)**

Dear Mr. Ochs,

On October 14, 2020, Flint Hills Resources (FHR) received a Notice of Amendment from PHMSA via email regarding the March 6 through August 16, 2019 inspection on the FHR Wisconsin Pipeline Systems. The letter identified three inadequacies within FHR's plans or procedures. The inspection scope included the following:

Operator ID: 22855 Units: 2983, 3663, 36903, and 36913  
Operator ID: 31288 Units: 68373

Please see FHR's response to Notice of Amendment #1 and #2 below. No response is provided for Notice of Amendment #3 as PHMSA indicated staff had reviewed FHR's amended procedure and that no further action is required.

**PHMSA NOTICE OF AMENDMENT #1**

1. §195.452 Pipeline integrity management in high consequence areas.

(a) . . . . .

(i) *What preventive and mitigative measures must an operator take to protect the high consequence area?*

*(1) General requirements. An operator must take measures to prevent and mitigate the consequences of a pipeline failure that could affect a high consequence area. These measures include conducting a risk analysis of the pipeline segment to identify additional actions to enhance public safety or environmental protection. Such actions may include, but are not limited to, implementing damage prevention best practices, better monitoring of cathodic protection where corrosion is a concern, establishing shorter inspection intervals, installing EFRDs on the pipeline segment, modifying the systems that monitor pressure and detect leaks, providing additional training to personnel on response procedures, conducting drills with local emergency responders and adopting other management controls.*

FHR's procedures do not define the criteria and measures to be used to identify, review or select preventative and mitigative actions needed to enhance public safety or environmental protection as required by 195.452(i)(1). FHR Integrity Management

Procedure 3.8.3 does not specifically identify the methods used to apply risk analysis in the identification, review, selection or verification of preventative and mitigative measures for pipeline segments and facilities.

### **FHR RESPONSE TO PHMSA NOTICE OF AMENDMENT #1**

FHR has updated its Integrity Management Program Manual (M1620.110) Chapter 3. Specifically, FHR has added definitions for both “standard” and “additional” preventive and mitigative actions to newly established Chapter 3, Section 3.8.5 “Preventive & Mitigative Actions”. Additionally, new Section 3.8.5.1 “Selection & Documentation of Additional P&M Actions” addresses the finding associated with specific criteria and measures used to identify, review or select preventative and mitigative actions needed to enhance public safety or environmental protection as required by 195.452(i)(1). A copy of FHR M1620.110 Integrity Management Program Manual Section 3.8.5 is attached.

### **PHMSA NOTICE OF AMENDMENT #2**

#### *2. §195.452 Pipeline integrity management in high consequence areas*

*(a) . . . . .*

*(l) What records must an operator keep to demonstrate compliance?--*

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

*(i) A written integrity management program in accordance with paragraph (b) of this section.*

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

FHR’s Integrity Management Plan Section 3.8.3 does not specify the record keeping requirements for the decisions and analyses of preventative and mitigative measures as required by 195.452(l)(1)(ii).

### **FHR RESPONSE TO PHMSA NOTICE OF AMENDMENT #2**

FHR has updated its Integrity Management Program Manual (M1620.110) Section 3.8.5.1 “Selection & Documentation of Additional P&M Actions” to address the record keeping requirements for the decisions and analyses of preventative and mitigative measures. The analysis and decision basis of the P&M action review will be documented within an FHR work management system and the record of this analysis will be retained for life of asset. A copy of FHR M1620.110 Integrity Management Program Manual Section 3.8.5 is attached.

Please do not hesitate to contact me directly if you require additional information or would like to discuss further.

Sincerely,



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Cc: Kim Gerold, Pipeline Safety Manager  
Aaron Schwing, Director of Asset Integrity and Reliability

Attachment: FHR M1620.110 Integrity Management Program Manual – Section 3.8.5

**FHR M1620.110 INTEGRITY MANAGEMENT PROGRAM MANUAL - SECTION 3.8.5**M1620.110  
Pipeline Integrity Management Program  
O&M: IMP

## Chapter 3 – Continual Process of Integrity Evaluation

In addition to MCDI, Executive Summary reviews are performed each year and are intended to provide an objective summary of current pipe conditions and activities conducted with regard to pipeline integrity and risk. The Asset Integrity Management Capability Team performs Executive Summary reviews annually.

To complete the Executive Summary process, Asset Integrity Management Capability Team representatives:

1. Gather and analyze integrity information for the specific pipeline.
2. Attend the Executive Summary meeting to discuss and analyze the information.
3. Identify pipeline specific integrity concerns.
4. Discuss and select mitigation methods to address identified integrity threats.
5. Review integrity test history (i.e., test type, year, and technology).
6. Review the next integrity test date.
7. Reaffirm or update the reassessment interval.

In addition to the MCDI and Executive Summary process, the Asset Integrity Management Capability Team holds bi-weekly knowledge-sharing sessions to discuss active integrity assessment activities and results across operating groups. Immediate mitigation measures and follow-up activities can be established as a result of the knowledge-share and challenge process during the bi-weekly meetings.

**3.8.4 Fourth Level -Metrics and Assessment Reviews**

The highest or fourth level describes the Pipeline Integrity Management Program evaluation methods, which include metrics, self-Assessment, corporate Assessments, third party Audits, and outside agency Audits. Each of these methods help to evaluate and find performance improvement opportunities in risk assessment, risk mitigation and data integration in the overall IMP. More information is found in Chapter 8 of this manual.

**3.8.5 Preventive & Mitigative Actions**

Standard preventive and mitigative actions (Standard P&M Actions) are defined as activities and actions designed to protect High Consequence Areas that are prescriptively required by regulation or defined in FHR Approved Documents. FHR Approved Documents address typical threats by requiring activities to meet or, in some cases, exceed regulatory requirements. These approved documents establish continual assessment and adjustment processes using various surveys, inspections, evaluations, corresponding data review and analysis, and if necessary, corrective, and remedial action.

**FHR M1620.110 INTEGRITY MANAGEMENT PROGRAM MANUAL - SECTION 3.8.5**M1620.110  
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## Chapter 3 – Continual Process of Integrity Evaluation

Examples of Standard P&M actions

- Replacing a cathodic protection test lead
- Replacing a cathodic protection rectifier
- Performing immediate, 60-day, and 180-day regulatory repairs following an integrity assessment
- Performing atmospheric corrosion evaluations on aboveground piping

Additional preventive and mitigative actions (Additional P&M Actions) are defined as additional actions designed to protect public safety and the environment in High Consequence Areas identified as a result of an Integrity Management Program (IMP) Formal Risk Analysis Process that meet the following criteria:

- exceed specific prescriptive regulatory requirements or requirements defined in FHR Approved Documents, or
- exceed/change the scope or frequency of implemented P&M actions at the time of the IMP Formal Risk Analysis Process on a specific pipeline segment or facility.

Examples of Additional P&M Actions:

- Enhanced cathodic protection monitoring
- Reduced inspection intervals
- Enhanced Training
- Increased, enhanced, or modified Leak Detection Methods and/or processes.
- Installation of Emergency Flow Restricting Devices (EFRDs).
- Conducting drills with local emergency responders
- Other management controls
- Installation of corrosion inhibitor on a pipeline segment previously deemed unnecessary based on new knowledge
- Additional HVAC modeling to inform HVAC induced corrosion threats
- Mitigation of an identified washout on the ROW where mechanical damage risk is unacceptable based on new knowledge or implementing additional damage prevention best practices
- Pipeline repairs conducted because of FHR P&T's "P4" analysis and repair criteria from a recent inspection
- Increased scope and/or frequency of actions that exceed minimum requirements specified within an FHR Approved Document.
- Increased scope and/or frequency of actions required by an FHR Approved Document (i.e. global change).

**FHR M1620.110 INTEGRITY MANAGEMENT PROGRAM MANUAL - SECTION 3.8.5**M1620.110  
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## Chapter 3 – Continual Process of Integrity Evaluation

**3.8.5.1 Selection and Documentation of Additional P&M Actions**

When formal qualitative risk assessments are performed, the selection of Additional P&M Actions is based upon the level of knowledge or uncertainty of a threat and the likelihood that the threat could affect the integrity of the pipeline or facility that could affect a High Consequence Area.

- When uncertainty of a threat is high, inspections, testing, and/or analysis of the conditions related to the threat should be evaluated to increase knowledge and understanding of the threat.
- When uncertainty of a threat is low, meaning that the threat is known and understood, and the likelihood is high, mitigative actions through increased frequency of inspection and remediation, engineering controls, or procedural controls should be evaluated to manage the threat.
- When both the uncertainty and the likelihood are high, management of the threat should include both above actions.

When formal quantitative risk assessments are performed, the selection of Additional P&M Actions is based on comparing a predicted reliability estimate to an established reliability target. If the predicted reliability performance does not meet the established reliability target, Additional P&M Actions are identified, reviewed, and implemented as warranted to improve the overall reliability of the asset and/or reduce the potential impact on High Consequence Areas (see Section 3.8.2).

Additional P&M Actions that are identified for further review, verification, or selection will be documented in one of FHR's work management systems. The analysis and decision basis of the P&M action review will be documented within the work management system and the record of this analysis will be retained for life of asset consistent with the requirements outlined in 195.452(l)(1)(ii). Specific implementation of changes to selected P&M actions are executed in accordance with FHR TG1450.100, Management of Change.

**Leak Detection Evaluation**

FHR [TG1604.208](#), Evaluating Leak Detection Methods and FHR [M1604.100](#), Leak Detection Systems Support and Operations Manual, establish the process for evaluating Leak Detection Methods for Pipeline Segments containing Could Affect Sections.

**FHR M1620.110 INTEGRITY MANAGEMENT PROGRAM MANUAL - SECTION 3.8.5**M1620.110  
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## Chapter 3 – Continual Process of Integrity Evaluation

This selection determines, on a case-by-case basis, which Leak Detection Method(s) should be applied to Could Affect Sections. This process includes data gathering, panel review, and recommendation.

The Leak Detection on each Pipeline will be reviewed every five years, at intervals not to exceed 66 months. If significant Changes occur to the physical Pipeline, its operations, or its environment, the Leak Detection Method may be reviewed regardless of the review cycle.

**EFRD Consideration**

FHR [TG1604.215](#), Evaluation of Emergency Flow Restricting Device Placement, establishes the process for evaluating EFRD placement in Pipeline Segments containing Could Affect Sections.

EFRD placement on each Pipeline will be reviewed every five years, at intervals not to exceed 66 months or during the MCDI process. If significant Changes occur regarding the physical Pipeline, its operations, or its environment, the currently installed EFRDs may be reviewed regardless of the review cycle.

**3.9 Planning Integrity Tests**

Integrity Tests for Pipeline Segments containing Could Affect Sections are planned at the completion of Integrity Testing projects and verified during the MCDI process. Planned Integrity Tests are documented in a schedule maintained by the ILI Scheduler.

**3.9.1 Selecting and Scheduling Integrity Testing Methods**

Capability Leaders and SMEs verify or select the appropriate method(s) for the Integrity Test through the risk analysis process. The Integrity Testing method and scheduling is chosen based on MCDI process summaries and Executive Summaries, including, but not limited to:

- Primary threat-categories
- Previous Integrity Testing methods and results
- Pipeline Segment history
- Pipeline Segment Indication trend data

**Table 3-5** summarizes various Integrity Test Methodologies and their applicability to the detection of Pipeline defects.