

Introduction

The materials contained in this document consist of guidance, techniques, procedures and other information for internal use by the PHMSA pipeline safety enforcement staff. This guidance document describes the practices used by PHMSA pipeline safety investigators and other enforcement personnel in undertaking their compliance, inspection, and enforcement activities and is intended to be used solely as a reference by PHMSA personnel. This document is U.S. Government property and is to be used in conjunction with official duties.

The Federal pipeline safety regulations (49 CFR Parts 190-199) discussed in this guidance document contains legally binding requirements. This document is not a regulation and creates no new legal obligations. In the event of a conflict between this document and any regulation, the document would not be controlling. The materials in this document are explanatory in nature and reflect PHMSA's current application of the regulations in effect at the time of the issuance of the guidance to the implementation scenarios presented in the materials. Alternative approaches are not precluded if they satisfy the requirements of the applicable regulation(s).

Nothing in this guidance document is intended to diminish or otherwise affect the authority of PHMSA to carry out its statutory, regulatory or other official functions or to commit PHMSA to taking any action that is subject to its discretion. Nothing in this document is intended to and does not create any legal or equitable right or benefit, substantive or procedural, enforceable at law by any person or organization against PHMSA, its personnel, State agencies or officers carrying out programs authorized under Federal law.

Decisions about specific investigations and enforcement cases are made according to the specific facts and circumstances at hand. Investigations and compliance determinations often require careful legal and technical analysis of complicated issues. Although this guidance document serves as a reference for the staff responsible for investigations and enforcement, no set of procedures or policies can replace the need for active and ongoing consultation with supervisors and colleagues in enforcement matters.

Comments and suggestions for future changes and additions to this guidance document are invited and should be forwarded to your supervisor.

The materials in this guidance document may be modified or revoked without prior notice by PHMSA management.

ENFORCEMENT GUIDANCE for LIQUID & GAS TRANSMISSION IM

Objectives of this Guidance

- Provide tools to assist inspectors and Region Directors in: 1) selecting the appropriate enforcement tool and 2) providing input to the Compliance Officer to determine proposed civil penalties for probable violations.
- Track inspection findings and their relative risk to: 1) assist decision-making by PHMSA management, 2) measure and track operator and industry performance, and 3) measure, track, and demonstrate the effectiveness of PHMSA IM oversight.

Table of Contents

| | | |
|--------------------|---|-----------|
| STEP 1 | <i>Assign a Risk Category to Inspection Findings</i> | 3 |
| STEP 2 | <i>Determine Type of Enforcement Tool</i> | 9 |
| | Table 2A – Selection of Enforcement Tools for Probable Violations of Prescriptive Rule Requirements | 10 |
| | Table 2B – Selection of Enforcement Tools for Non-Prescriptive (Programmatic/Process) Issues..... | 12 |
| STEP 3 | <i>Prepare Notice Letter(s) and Violation Report</i> | 15 |
| STEP 4 | <i>Document Issue and Risk Category Determinations on Protocol form and Enforcement Tool in IMDB</i> | 15 |
| ATTACHMENTS | | 17 |
| | Table 1A - Risk Category Guidance Table for Gas Transmission IM | 17 |
| | Table 1B - Risk Category Guidance Table for Hazardous Liquid IM | 44 |
| | Specific Instructions for Entering Enforcement Actions for Inspection Issues into IMDB..... | 65 |

NOTE: This IM enforcement guidance is intended for the most common, frequently encountered inspection issues. It is not intended to encompass all situations. When unusual situations arise where this guidance does not seem to apply, consult the Compliance Officer¹ for assistance. Furthermore, this guidance is prepared to deal with the issues identified during IM inspections. For IM compliance issues that may arise subsequent to a release or incident, consult the Compliance Officer¹ for guidance.

¹ For all issues related to this enforcement guidance, should the Compliance Officer not be available when needed, contact the Enforcement Director for assistance.

STEP 1 Assign a Risk Category to Inspection Findings

The first step in the enforcement process is to establish the relative risk (or **Risk Category**) for each issue identified during an inspection. Tables 1A and 1B (see Attachment A) provide guidance for making these determinations. There are separate tables for gas transmission and hazardous liquid IM inspection issues. For each Protocol Area, the left column of Tables 1A and 1B describes the most commonly observed areas in which issues exist. These are referred to as **Area Findings** in this guidance document. To begin the enforcement process, match each inspection issue to the appropriate **Area Finding** in Table 1A or 1B, and then select the corresponding **Risk Category** that best characterizes the potential risk represented by the inspection issue.

The process for determining the **Area Finding** for each inspection issue and for selecting the corresponding **Risk Category** is described below:

- **Identify the “Inspection Issues”:** In the inspection issues portion of the protocol form, describe each issue identified during the inspection and the applicable evidence that is associated with the protocol. If there is more than one issue, each issue should be numbered so its identity is clear and it is easily distinguished from other issues identified for the same protocol question. (see Figures 1 and 2).
- **Select an “Issue Category” for each “Inspection Issue”:** In the “Issue Categorization” area of the protocol form, select an Issue Category for each inspection issue. Select only one issue category for each inspection issue. Record the “Issue Category” selection on the inspection protocol form (see Figures 1 and 2). The Issue Category data is used to track and trend specific technical and process issues identified in PHMSA’s IM inspection program.
 - If there are instances where a single issue appears to fit under multiple Issue Categories, consider breaking the issue down into separate issues so that each inspection issue will have one and only one Issue Category.
 - If none of the Issue Categories applies, select “Other” as the Issue Category and briefly describe a category which you believe is appropriate.
 - Because Issue Categories can appear in multiple protocol questions, it is possible -and entirely acceptable - that several different issues identified during an inspection will be assigned to the same Issue Category.
 - If multiple inspection issues appear to be associated with the same Issue Category for the same protocol question, these should be described as multiple occurrences of a single inspection issue if possible.
- **Select the Appropriate “Area Finding” for Each “Inspection Issue”:** Since each Issue Category is associated with only one Area Finding on the protocol form, the appropriate Area Finding is automatically determined by the selection of the Issue Category (see Figures 1 and 2). If the “Issue Category” is selected as “**Other**”, the appropriate Area Finding should be

selected from Table 1A or 1B in the Enforcement Guidance. If none of the Area Findings in Tables 1A and 1B seems to apply, consult the Compliance Officer for guidance on which Area Finding to select.

- **Select the Appropriate “Risk Category” for Each “Inspection Issue”.** For each Area Finding, Tables 1A and 1B specify five Risk Categories – labeled “A” through “E”. Risk Category “A” represents the highest risk or most severe occurrence, and “E” the lowest. Use the descriptions within the Risk Category columns of Tables 1A and 1B as guidance to select the appropriate Risk Category for each issue being evaluated. Only one Risk Category is to be selected for each inspection issue. If more than one Risk Category seems to apply or if it is otherwise not apparent which Risk Category applies, choose the one that best reflects the potential consequences of the inspection issue. If this determination is difficult to make, consult the Compliance Officer for guidance on which Risk Category to select. Record the Risk Category selection on the inspection protocol form as shown in Figures 1 and 2. These Risk Categories are used by PHMSA to: 1) track the severity or seriousness of inspection issues identified on an operator-by-operator basis as well as for the entire industry; and 2) demonstrate the effectiveness of PHMSA’s oversight program through IM Program improvement over time both on an operator-by-operator basis and for the entire industry over time.

Even if an operator satisfactorily resolves an issue during the inspection, it is still important to identify the appropriate **Area Finding** and **Risk Category** so the adequacy of an operator’s IM program can be tracked and PHMSA management can demonstrate the thoroughness and effectiveness of the oversight program. In such cases, the protocol form should include a statement that the issue was resolved during the inspection.

A.01.d. Review HCA records to verify that the operator completed identification of pipeline segments in high consequence areas by December 17, 2004. [[§192.907](#) and [§192.911\(a\)](#)]

| A.01.d. Inspection Results (Type an X in the applicable box below. Select only one.) | |
|---|--|
| <input type="checkbox"/> | No Issues Identified |
| <input checked="" type="checkbox"/> | Potential Issues Identified (explain in summary) |
| <input type="checkbox"/> | Not Applicable (explain in summary) |

| A.01.d. Inspection Issues Summary (Leave blank if no issue was identified.) |
|--|
| All existing HCAs were not identified by the 12/17/2004 compliance deadline. Reviews conducted subsequent to the compliance deadline have resulted in the identification of numerous HCAs that were required to be identified prior to the compliance deadline. For example, the golf clubhouse in the vicinity of HCAs 3268 and 3272 was noted as a structure in the GIS since 2001, and occupancy information was attained and entered into the operator's data base in the fall of 2004, but was not recognized as an identified site until 2005. |
| Issue Category A.01.04/Area Finding A.7/Risk Category D |
| EVIDENCE: Printouts: Official HCA Summary 12/28/2005, Summary of HCAs by Company, Inventory of structures in new 2005 HCAs, & New 2005 HCAs Created From An Identified Site |

| A.01 Issue Categorization For each potential issue, type an "X" in the first column for one "best fit" Issue Category and then enter the appropriate Risk Category (A-E) from the Enforcement Guidance. | | | Area Finding | Risk Category (A-E) |
|--|---------|---|---------------------|----------------------------|
| <input type="checkbox"/> | A.01.01 | HCA analysis was not adequately performed on each section of pipeline in the operator's system | AF A.4 | |
| <input type="checkbox"/> | A.01.02 | The method or combination of methods used to identify HCAs was not adequately documented for each covered segment | AF A.1 | |
| <input type="checkbox"/> | A.01.03 | System maps or other suitable means of documenting the pipeline HCA segment locations were not appropriately utilized | AF A.1 | |
| <input checked="" type="checkbox"/> | A.01.04 | HCA identification was not completed by December 17, 2004 | AF A.7 | D |
| <input type="checkbox"/> | A.01.05 | Completion of HCA analysis was not adequately documented | AF A.6 | |
| <input type="checkbox"/> | A.01.06 | Procedures did not adequately describe how to identify HCAs using Method 1 and/or Method 2 | AF A.1 | |
| <input type="checkbox"/> | A.01.07 | No process/procedures describing how to identify HCAs using Method 1 and/or Method 2 | AF A.1 | |
| <input type="checkbox"/> | Other: | | | |

41

Figure 1

Documentation of the Issue Category, Area Finding and Risk Category when One Issue has been Identified

| | |
|---|--|
| C.01 a. Inspection Results (Type an X in the applicable box below. Select only one.) | |
| <input type="checkbox"/> | No Issues Identified |
| <input checked="" type="checkbox"/> | Potential Issues Identified (explain in summary) |
| <input type="checkbox"/> | Not Applicable (explain in summary) |

C.01 a. Inspection Issues Summary (Leave blank if no issue was identified.)

1. The process for utilizing the TIP charts and related steps to evaluate threats and setting threat risk levels is not documented in sufficient detail to assure consistent application by different analysts. As described by EPPG, this is a large-scope, complex task requiring the assembly, review, and application of multiple large data sets and the use of detailed technical decision logic and, as such, requires clear and complete definition of all steps.

Issue Category C.01.06/ Area Finding C.8/ Risk Category E
 EVIDENCE: IM program chapter 2, 3, Appendix A-1 through A-9

2. The meaning used for “threat does not exist” in the TIPs is misleading in some situations when a threat actually does exist for segment but is being successfully mitigated by current conditions and operating practices.

Issue Category C.01.04/ Area Finding C.1/ Risk Category C
 EVIDENCE: IM program Appendix A-1

3. The threat evaluation process does not include a comprehensive data integration and evaluation of interacting threats beyond evaluation of the interaction of land movement with other threats.

Issue Category C.01.03/ Area Finding C.1/ Risk Category E
 EVIDENCE: IM Program, Chapters 2
 EVIDENCE: IM Program, Section 3.3

| C.01 Issue Categorization For each potential issue, type an "X" in the first column for one "best fit" Issue Category and then enter the appropriate Risk Category (A-E) from the Enforcement Guidance. | | | Area Finding | Risk Category (A-E) |
|--|---------|--|--------------|---------------------|
| <input type="checkbox"/> | C.01.01 | All of the threats required by the rule and standard for a prescriptive program were not adequately considered and/or evaluated | AF C.1 | |
| <input type="checkbox"/> | C.01.02 | Significant facility risk factors were not appropriately considered. | AF C.6 | |
| <input checked="" type="checkbox"/> | C.01.03 | Interactive threats from different threat categories were not adequately evaluated | AF C.1 | E |
| <input checked="" type="checkbox"/> | C.01.04 | Specific threats for a particular pipeline segment were eliminated from consideration without adequate justification | AF C.1 | C |
| <input type="checkbox"/> | C.01.05 | The performance based program did not adequately consider all 21 of the threats associated with the nine threat categories in the standard | AF C.1 | |
| <input checked="" type="checkbox"/> | C.01.06 | Procedures did not adequately describe the requirements for identifying and evaluating threats | AF C.8 | E |
| <input type="checkbox"/> | C.01.07 | No process/procedures existed that described the requirements for identifying and evaluating threats | AF C.8 | |
| <input type="checkbox"/> | Other: | | | |

Figure 2

Documentation of Issue Categories, Area Findings and Risk Categories when Multiple Issues have been Identified

Several descriptive terms are used frequently in Tables 1A and 1B. These are defined below.

| Term | Definition |
|-------------------------------|--|
| Widespread or High Percentage | An inspection issue potentially impacts all or a large number of an operator’s pipeline facilities, “HCA-affecting” segments, HCA’s, risk factors, threats, defects, preventive and mitigative measures, etc. This characterization is typically indicative of a condition that is either systemic or extremely common in occurrence. |
| Meaningful Quantity | An inspection issue that is not “widespread” or “high percentage” but is more than “isolated” or “very few” and/or impacts HCAs of particular importance. |
| Isolated or Very Few | An inspection issue potentially impacts few or a small number of an operator’s pipeline facilities, “HCA-affecting” segments, HCA’s, risk factors, threats, defects, preventive and mitigative measures, etc. This characterization is typically indicative of a condition that is either atypical or relatively rare in occurrence. |
| Likely | <p>This term is used to define the situation where the inspector has either:</p> <ul style="list-style-type: none"> - Identified the applicable issue at the specified frequency of occurrence, or - Believes, based on the nature of the particular issue and the evidence reviewed, it is probable that the issue exists, and/or will exist, at the specified frequency of occurrence. Definitive knowledge that an issue has occurred in a specified number of segments or at a specified frequency is not necessary to determine that a particular risk category is “likely”. |
| Unlikely | <p>This term is used to define the situation where the inspector has either:</p> <ul style="list-style-type: none"> - Determined that the applicable issue has not resulted and/or will not result in a specific implementation problem (e.g., HCA affecting segments not identified, assessments not performed, rule-required anomalies not repaired, preventive or mitigative measures not evaluated or implemented); or - Believes, based on a sample review of the operator’s records, that there is a high probability that the applicable finding has not resulted and/or will not result in specific implementation problems. |

Example Determination of Area Findings and Risk Category:

- Review of a liquid operator’s risk analysis and preventive & mitigative measures processes indicated the operator took credit for past process hazards analysis (PHA) studies conducted on two pipeline facilities classified as HCA-affecting. These studies pre-dated the operator’s integrity management plan and mainly focused on facility operational reliability.
- One facility includes a set of breakout tanks located near a high population area in close proximity to a waterway that also serves as the primary drinking water source for several downstream communities.
- Rather than updating the past PHA studies to enable the evaluation of additional preventive and mitigative measures to protect potentially affected HCAs, the operator relied on the conclusions of the past studies and associated facility changes made in response to those studies.
- The inspection team concluded that since the original PHA studies had not considered the potential impact of facility operation on HCAs and had not been evaluated as being up to date, the operator had not satisfied rule requirements to evaluate additional P&M measures for pipeline facilities. The appropriate Area Finding is 6.3, “Failure to consider or implement additional preventive and mitigative measures to protect HCAs from non-pipeline facilities.”
- Given that the past PHA studies concentrated on operational reliability vs. facility releases along with other information gathered during the inspection, the inspection team made the judgment that it was reasonably likely that “significant” P&M measures had been overlooked.
- Since two facilities are involved and one involves HCAs of particular importance (i.e., the HPA and primary community drinking water sources), a meaningful quantity of HCAs are involved and the appropriate Risk Category is “C” (refer to the table excerpt below).
- Had a larger number of facilities/HCAs been involved, then category “B” may have been appropriate depending on how widespread the problem was. Had it been unlikely that significant P&M measures were overlooked, category “E” would be appropriate.

| Liquid IM Area Finding | Risk Category | | | | |
|--|---------------|---|---|---|---|
| | A | B | C | D | E |
| AF 6.3 Failure to consider or implement additional preventive and mitigative measures to protect HCAs from non-pipeline facilities | NA | Likely that inadequate program or poor implementation results in significant P&M measures being overlooked for a widespread occurrence of HCA-affecting segments. | Likely that inadequate program or poor implementation results in significant P&M measures being overlooked for a meaningful quantity of HCA-affecting segments. | Likely that inadequate program or poor implementation results in significant P&M measures being overlooked for very few/isolated or indeterminate HCA-affecting segments. | Inadequate program but unlikely that significant preventive or mitigative actions were or will be overlooked. |

STEP 2 Determine Type of Enforcement Tool

The next step in the enforcement process is to establish the appropriate enforcement tool for each inspection issue. The options for enforcement tools¹ are:

- Notice of Proposed Violation (NOPV) with Proposed Civil Penalty and/or Proposed Compliance Order
- Warning Letter
- Notice of Amendment (NOA)
- Letter of Concern (LOC) or other written communication to the operator
- No enforcement action

Each issue identified in the “Inspection Issues Summary” area of the protocol form should have a specific associated enforcement action. Even if multiple issues have the same Area Finding, (see Figure 2 in which two issues with Issue Categories C.01.03 and C.01.04 have the same Area Finding [C.1], each issue must still have its own enforcement action. (In the example in Figure 2, three enforcement actions are required because there are three inspection issues.)

The guidance for selecting the appropriate enforcement tool is presented in two parts. The first section addresses inspection issues that are probable violations of the rules’ prescriptive requirements. The second section addresses enforcement tool determination for issues involving the rules’ non-prescriptive (programmatic or process-based) requirements.

Probable Violations of Prescriptive Rule Requirements

For the inspection issues associated with the rule’s prescriptive requirements, it is generally straightforward to determine if a violation has occurred or not. For example, “operator failed to repair “x” 180 day condition defects within 180 days and did not lower pressure or notify PHMSA.” A violation of a prescriptive requirement should result in an NOPV or a Warning Letter. Guidance for selecting a Warning Letter or an NOPV is provided in Table 2A.

¹ In rare instances, other enforcement tools may be warranted. If these circumstances arise, consult the Enforcement Director.

Table 2A – Selection of Enforcement Tools for Probable Violations of Prescriptive Rule Requirements

| IM PRESCRIPTIVE ISSUE FROM INSPECTION | RECOMMENDED ENFORCEMENT TOOL |
|--|--|
| <p>Inspection issue is determined to be Risk Category E, <u>and</u> one or more of the following factors exist:</p> <ul style="list-style-type: none"> • The operator has demonstrated good faith in trying to achieve compliance • The non-compliance was an oversight • The non-compliance has already been corrected or can promptly be corrected by the operator | Warning Letter |
| <p>Inspection issue is determined to be Risk Category E <u>and</u> none of the above factors exist.</p> | NOPV with a proposed civil penalty and/or a proposed compliance order, or Warning Letter at Region Director’s discretion. |
| <p>Inspection issue is determined to be Risk Category A-D, <u>and</u> the Region Director believes a Warning Letter is the appropriate action</p> | Warning Letter (Compliance Officer should be consulted to discuss the unique aspects of the case that justify the use of a Warning Letter) |
| <p>All other probable violations of prescriptive requirements:¹</p> <ol style="list-style-type: none"> 1. The probable violation involves a failure to take a required action or a failure to comply with a required deadline. 2. The probable violation involves a program, process, or implementation deficiency that must be corrected to comply with the rule. | <ol style="list-style-type: none"> 1. NOPV with a proposed civil penalty 2. NOPV with a proposed civil penalty and potentially a proposed compliance order. The need for a proposed compliance order should be determined by the Region Director and the inspector based on an evaluation of the circumstances |

¹ If a process does not exist for a program element explicitly required by the rule (192.911 or 195.452 (f)), this should be considered as a prescriptive rule violation and dealt with in accordance with Table 2A.

Non-Prescriptive Inspection Issues

Issues not associated with the rule's prescriptive requirement involve issues with programmatic or process-based requirements (i.e., the requirements to develop the IM program elements in §195.452 (f) or §192.911). For these, use Table 2B to select the appropriate enforcement tool. As reflected in Table 2B, issues associated with programmatic requirements fall into one of three general categories:

- An IM process's design or its characteristics
- Technical justification or analysis supporting program decisions or assumptions, or
- Operator implementation of its IM process.

The left column of Table 2B lists the general types of issues associated with each of the above three categories. Select the description in the left column that matches the issue identified during the inspection.

- If the issue has not been previously identified and there is no prior finding of violation or finding of inadequate procedures, then the middle column in the table provides guidance as to the appropriate enforcement tool.
- If the issue has been previously cited in a finding of violation or a finding of inadequate procedures, then the right column should be used to identify the appropriate enforcement tool. Note that allegations of violations or inadequate procedures, such as are in NOPVs or NOAs, respectively, do not constitute findings. Findings must be explicitly stated in Final Orders or Orders Directing Amendment.

With the exception of Risk Category E issues, it is important to recognize that there isn't necessarily an explicit one-to-one correlation between the Risk Category from Step 1 and the appropriate enforcement tool for non-prescriptive inspection issues. Risk Categories for either an NOPV or an NOA can potentially span the entire range from Risk Category A to E.

Table 2B – Selection of Enforcement Tools for Non-Prescriptive (Programmatic/Process) Issues

| IM PROGRAM ISSUE FROM INSPECTION | RECOMMENDED ENFORCEMENT TOOL | |
|--|---|---|
| Process Design or Characteristics | No prior finding of violation or finding of inadequate procedures [Note 1] | Prior finding of violation or finding of inadequate procedures |
| <i>Significant</i> omissions or technical errors resulting in a <i>high likelihood</i> that significant integrity threats may be overlooked or risks not addressed. [Note 2] | NOPV | NOPV |
| Process inadequacies <i>may</i> result in integrity threats being overlooked or risks not addressed. | NOA for items with a risk ranking of A – D [Note 3] LOC for items with a risk ranking of E | NOPV |
| Operator is taking actions expected for a program element but process is not effectively documented. | NOA for items with a risk ranking of A – D [Note 3] LOC for items with a risk ranking of E | NOPV |
| Technical Justification for Key [Note 4] IM Program Decisions or Assumptions | | |
| Technical justification does not exist. | NOPV | NOPV |
| Technical justification exists, but contains technical errors or omissions. | <ul style="list-style-type: none"> • NOPV when Operator made significant omissions or technical errors, or ignored well-established technical positions and experience • NOA if modest adjustments to the justification are required (except LOC for items with a risk ranking of E) | NOPV |
| Technical justification is adequate, but it is not documented. | <ul style="list-style-type: none"> • NOPV if the documentation is crucial to effective program implementation • NOA for items with a risk ranking of A – D, and the documentation is unlikely to affect implementation or documentation fixes are not significant (except LOC for items with a risk ranking of E) | NOPV |
| Process Implementation | | |
| Implementation did not occur. | NOPV | NOPV |
| Implementation occurred, but not in accordance with IM Program. | NOPV | NOPV |
| Implementation occurred, but it was not documented. [Note 5] | <ul style="list-style-type: none"> • Gas Transmission Operator (first round inspections) – Warning Letter • Gas Transmission Operator (subsequent inspections) and Liquid Operator Inspections - NOPV (or Warning Letter if issue is minor) | NOPV |

Explanatory Notes for Table 2B

1. For most NOPV issues in the “Process Design” or “Technical Justification” categories, a compliance order should be proposed directing correction of the identified noncompliance. A civil penalty should also be proposed commensurate with the risks represented by the noncompliance. The Risk Category assignment from Step 1 and the information provided by the Region on the Violation Report will be used by the Compliance Officer to determine the amount of the proposed civil penalty. For NOPV issues in the “Process Implementation” category, a compliance order should be proposed if such action is deemed necessary to correct the implementation errors that occurred. Otherwise, only a civil penalty should be proposed.
2. When there are **significant** omissions or technical errors resulting in a **high likelihood** that significant integrity threats may be overlooked or risks not addressed, the recommended enforcement tool is an NOPV. High risk would be an omission or technical error whose assigned Risk Category from Step 1 is either A, B, or C. Examples of such probable violations might be:
 - Operator’s process does not require and the operator does not compare ILI results with previous tool run results.
 - Operator’s risk analysis process does not contain risk factors to address seam integrity, yet the operator has substantial pre-70 ERW pipe.
 - Operator uses non-conservative default values in its risk model in lieu of its actual corrosion control data when its lines have a history of corrosion related releases.

Example citations for “significant omissions or technical errors” could include:

Liquid IM

195.452(g) *..”an operator must analyze all available information about the integrity of the entire pipeline”;*

195.452 (i) (2)...”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”; or

195.452(f) *”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”.*

Gas IM

192.917(b) ... *”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.”

192.917(c) ... “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.”

192.907 “an operator of a covered pipeline segment must develop and follow a written integrity management program that contains all the elements described in § 192.911 and that addresses the risks on each covered transmission pipeline segment. The initial integrity management program must consist, at a minimum, of a framework that describes the process for implementing each program element, how relevant decisions will be made and by whom, a time line for completing the work to implement the program element, and how information gained from experience will be continuously incorporated into the program. The framework will evolve into a more detailed and comprehensive program. An operator must make continual improvements to the program.”

3. A NOA with Region closure or a LOC should be used the first time an issue is observed. If the same issue is observed in a subsequent inspection, an NOA closed by an Order Directing Amendment is the appropriate enforcement action.
4. “Key” means a potentially significant impact on program decisions and HCA protection. An example might be failing to justify ERW pipe is not susceptible to seam failure when an operator has significant pre-70 ERW pipe. For less significant technical justifications and assumptions, an NOA is recommended unless the issue was raised in a previous inspection, in which case an NOA closed by an Order Directing Amendment is the appropriate action.
5. There are some parts of Table 2B that are different for hazardous liquid operator inspections from first round gas transmission operator inspections. These are described below:
 - For the first round of gas transmission IM inspections, the right column of Table 2B is not applicable. This column deals with prior offenses and does not apply for the first round of gas IM inspections.
 - For situations where an operator implemented its documented IM processes, but did not document or keep records that such implementation occurred (the last row of Table 2B) the guidance for hazardous liquid operator inspections is to use an NOPV or a Warning Letter (if the records issue is a minor one). For first round gas transmission operator inspections, this situation should be addressed using a Warning Letter.

STEP 3 – Prepare Notice Letter(s) and Violation Report

The Violation Report form and instructions, and sample Notice Letter templates are available from the Pipeline and Hazardous Materials Safety Administration Pipeline intranet.

If one or more of the probable violations or inadequate procedures deals with the incomplete consideration of risk factors, then the proposed compliance order or NOA must explicitly direct the operator to consider all risk factors in revising its information/risk analysis, periodic evaluations, assessment plans, and determining necessary preventive and mitigative measures.

Regulatory citations in the Notice Letter and Violation Report should be at the lowest (i.e., most detailed) requirement appropriate for the issue observed.

STEP 4 – Document Issue and Risk Category Determinations on Protocol form and Enforcement Tool in IMDB

As described in Step 1, for each issue identified on the protocol form, the following information should be clearly documented and associated with each issue:

- Issue Category
- Area Finding (identified automatically unless “Other” is selected for an Issue Category)
- Risk Category

Figures 1 and 2 illustrate how to document this information.

In addition, to record the disposition of each inspection issue, the enforcement action for each issue should be entered into the Integrity Management Database (IMDB) (See Figure 3). This step is available only after the protocol results form has been uploaded and the results imported into the database. If no enforcement action is taken, provide a brief description of why in the “Comment” column (e.g., Minor documentation issue resolved during inspection).

Step-by-step, illustrated instructions for entering enforcement decisions in IMDB are provided as the last attachment to this guidance.

Enforcement Type Selection Form

| Issue Categories: | | | | |
|-------------------|---|----------------|--|------------------------|
| Issue Category: | Issue Category Description: | Risk Category: | Enforcement Type: | Enforcement Comments: |
| 5.02.01 | Risk weighting factors were not adequately validated or justified | E | WL | |
| 5.04.02 | The process did not adequately risk-rank based on segments that can affect HCAs or other appropriate subdivisions of the pipeline | E | None | Corrected by operator. |
| 7.01.01 | An adequate periodic evaluation process that meets rule requirements was not adequately developed or documented | B | NOA | |
| 7.02.01 | All relevant information was not adequately considered or adequate justifications were not developed for reassessment intervals | E | <div style="border: 1px solid gray; padding: 2px;"> <div style="background-color: #d3d3d3; padding: 2px;">-- select --</div> <div style="padding: 2px;">-- select --</div> <div style="padding: 2px;">LOC</div> <div style="background-color: #000080; color: white; padding: 2px;">WL</div> <div style="padding: 2px;">NOA</div> <div style="padding: 2px;">NOPV</div> <div style="padding: 2px;">None</div> </div> | |
| 8.01.05 | Adequate actions were not identified to improve the IM program | E | <div style="border: 1px solid gray; padding: 2px;"> <div style="background-color: #d3d3d3; padding: 2px;">-- select --</div> </div> | |

Figure 3
Entering Enforcement Actions in IMDB

ATTACHMENTS

Table 1A - Risk Category Guidance Table for Gas Transmission IM

| Gas IM Area Finding | Risk Category | | | | |
|--|--|--|--|--|---|
| | A | B | C | D | E |
| A. HCA Identification | | | | | |
| AF A.1 Failure to adequately identify covered segments; or failure to define adequate process requirements for identification of covered segments (such as improper determination of potential impact circles, identified sites, locations of buildings or areas, locations of pipelines, etc) | Likely that a systemic problem caused by an inadequate program or poor implementation results in widespread occurrence of covered segments not being identified. | Likely that an inadequate program or poor implementation results in a meaningful quantity of covered segments not being identified. | Likely that an inadequate program or poor implementation results in very few/isolated or indeterminate covered segments not being identified. | NA | Unlikely any specific covered segments missed but the program did not address all required elements. |
| AF A.2 Failure to properly use new pipeline information to update the identification of covered or failure to require that new information be used to update covered segments | NA | Likely that the failure to periodically update the identification of covered segments results in widespread occurrence of missing covered segments and the condition exists for over one year. | Likely that the failure to periodically update the identification of covered segments results in a meaningful quantity of missing covered segments and the condition exists for over one year. | Likely that the failure to periodically update the identification of covered segments results in very few/isolated or indeterminate missing covered segments and the condition exists for over one year. | Unlikely any specific covered segments missed for over a year but the segment identification update process was incomplete or inadequate. |

| Gas IM Area Finding | Risk Category | | | | |
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| | A | B | C | D | E |
| AF A.3 Failure to adequately require or consider new population or building data to update the identification of covered segments | NA | Likely that the failure to use new information to update the identification of covered segments results in widespread occurrence of covered segments not being identified and the condition exists for over one year. | Likely that the failure to use new information to update the identification of covered segments results in a meaningful quantity of covered segments not being identified and the condition exists for over one year. | Likely that the failure to use new information to update the identification of covered segments results in very few/isolated or indeterminate covered segments not being identified and the condition exists for over one year. | Unlikely any specific covered segments missed for over a year but the HCA identification update process was incomplete or inadequate. |
| AF A.4 Failure to adequately consider or include all applicable pipelines in the HCA identification process | Likely that an inadequate program or poor implementation results in widespread occurrence of covered segments not being identified. | Likely that an inadequate program or poor implementation results in a meaningful quantity of covered segments not being identified. | Likely that an inadequate program or poor implementation results in very few/isolated or indeterminate covered segments not being identified. | NA | Unlikely any specific covered segments missed but the program did not consider all required segments. |
| AF A.5 Failure to require or complete HCA identification process when bringing additional line(s) into service | NA | Likely widespread occurrence of covered segments not being identified and the condition exists for over one year. | Likely meaningful quantity of covered segments not being identified and the condition exists for over one year. | Likely very few/isolated or indeterminate covered segments not being identified and the condition exists for over one year. | Unlikely any specific covered segments missed for over a year but the HCA identification process was not required to be performed or not completed on additional lines as required. |
| AF A.6 Failure to adequately document completion of required tasks specified in the process or failure to document revisions to the process for identification of covered segment. | NA | NA | NA | NA | Operator did not document completion of required tasks specified in the process or revisions to the HCA identification process. |
| AF A.7 Failure to adequately complete HCA identification process by December 17, 2004 | NA | HCA identification was not completed within one year of the required date. | HCA identification process was not completed within six months of the required date. | HCA identification process was not completed within one month of the required date. | HCA identification process was not completed within one week of the required date. |

| B. Baseline Assessment Plan | | | | | |
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| AF B.1 Failure to complete a baseline assessment on 100% of the covered segments within the required rule timeframe | Widespread occurrence of baseline assessments for covered segments not being completed within the rule requirements. | Meaningful quantity of baseline assessments for covered segments not being completed within the rule requirements. | Very few/isolated or indeterminate baseline assessments for covered segments not completed within the rule requirements. | NA | Unlikely that specific covered segments missed the deadline but minor discrepancies identified with the scheduling and completion of baseline assessments such as not completing the assessments within 90 days of the scheduled date. |
| AF B.2 Failure to complete assessments for at least half the covered segments by the required deadline for completing 50% | Widespread occurrence of assessments for covered segments in the top 50% not completed within rule requirements. | Meaningful quantity of assessments for covered segments in the top 50% not completed within rule requirements. | Very few/isolated or indeterminate assessments for covered segments in the top 50% not completed within rule requirements. | NA | Unlikely that specific covered segments missed the deadline but minor discrepancies identified with the scheduling and completion of baseline assessments such as not completing the assessments within 90 days of the scheduled date. |
| AF B.3 Inappropriate credit taken for prior assessment(s) | NA | Widespread occurrence of prior assessments inappropriately credited for covered segments and correct assessments not completed within the rule requirements. | Meaningful quantity of prior assessments inappropriately credited for covered segments and correct assessments not completed within the rule requirements. | Very few/isolated or indeterminate prior assessments inappropriately credited for covered segments and correct assessments not completed within the rule requirements. | Prior assessments inappropriately credited but correct assessments were or are scheduled to be completed within the rule requirements. |

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| AF B.4 Failure to adequately prioritize covered segments for baseline assessments (e.g., used no risk evaluation or inadequate risk evaluation) | NA | Operator did not perform a risk-based prioritization of covered segments for the baseline assessment plan schedule; OR Likely that inadequate program or poor implementation results in widespread occurrence of assessments for high-risk covered segments being inappropriately scheduled. | Likely that inadequate program or poor implementation results in a meaningful quantity of assessments for high-risk covered segments being inappropriately scheduled. | Likely that an inadequate program or poor implementation results in very few/isolated or indeterminate assessments for high-risk covered segments being inappropriately scheduled. | Unlikely that assessments for any high-risk covered segments inappropriately scheduled but prioritization process had minor inadequacies. |
| AF B.5 Failure to specify or justify the correct assessment tool/method | Likely widespread occurrence of assessment methods not being appropriate for segment-specific threats for covered segments. | Likely a meaningful quantity of assessment methods not being appropriate for segment-specific threats for covered segments. | Likely very few/isolated or indeterminate assessment methods not being appropriate for segment-specific threats for covered segments. | NA | Process used to specify assessment tools inadequate but unlikely that any threats in covered segments did not have an appropriate assessment method specified. |
| AF B.6 Failure to update the BAP and/or complete assessments on new covered segments within rule requirements | NA | Widespread occurrence of new covered segments not being included in the baseline assessment plan and/or assessments not completed within the rule requirements. | Meaningful quantity of new covered segments not being included in the baseline assessment plan and/or assessments not completed within the rule requirements. | Very few/isolated occurrence(s) of new covered segments not being included in the baseline assessment plan and/or assessments not completed within the rule requirements. | Minor discrepancies identified with the updating of the baseline assessment plan but unlikely that new covered segments were overlooked or assessments not completed within the rule requirements. |
| AF B.7 Failure to adequately define BAP requirements and/or develop a BAP in accordance with rule requirements | No attempt was made to develop a baseline assessment plan; OR Widespread occurrence of HCA-affecting segments not being included in the baseline assessment plan. | Meaningful quantity of HCA-affecting segments not being included in the baseline assessment plan. | Very few/isolated or indeterminate HCA-affecting segments not being included in the baseline assessment plan; AND/OR One or more rule required elements not included in the BAP | NA | Minor discrepancies identified with development of the baseline assessment plan (such as a failure to have a detailed near term schedule) but unlikely that HCA-affecting segments were overlooked. |

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| AF B.8 Failure to require and/or implement adequate measures to address environmental and safety risks during assessments | NA | NA | No effort by the operator to address environmental and safety risks during assessments. | Environmental and safety risks were not adequately addressed for a meaningful quantity of assessments. | Environmental and safety risks were adequately addressed for most completed assessments but program requirements were inadequate to ensure that these risks would be appropriately addressed in the future. |
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| C. Risk Analysis | | | | | |
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| AF C.1 Failure to adequately identify or analyze significant risk factors (including interactive threats); or failure to justify excluding relevant segment risk factors such as susceptibility to SCC or low-frequency ERW pipe | Inadequate or no consideration of one or more significant risk factors results in significantly inaccurate risk analysis results for a high percentage of covered segments. | Inadequate or no consideration of one or more significant risk factors results in significantly inaccurate risk analysis results for a meaningful quantity of covered segments. | Inadequate or no consideration of one or more significant risk factors results in significantly inaccurate risk analysis results for very few/isolated or indeterminate covered segments. | N/A | Unlikely that the inadequate consideration of certain risk factors results in significantly inaccurate risk analysis results for covered segments. |
| AF C.2 Failure to develop or implement an adequate risk analysis process | Risk analysis approach inadequate in one or more areas results in significantly inaccurate risk analysis results for a high percentage of covered segments, or significantly compromises other program elements that depend on risk analysis input (such as identification of P&M measures) | Risk analysis approach inadequate in one or more areas results in significantly inaccurate risk analysis results for a meaningful quantity of covered segments, or moderately compromises other program elements that depend on risk analysis input (such as identification of P&M measures) | Risk analysis approach inadequate in one or more areas results in significantly inaccurate risk analysis results for very few/isolated or indeterminate covered segments, or potentially compromises other program elements that depend on risk analysis input (such as identification of P&M measures) | N/A | Unlikely that inadequacies in the risk analysis process compromise other program elements or result in significantly inaccurate risk analysis results for covered segments |
| AF C.3 Failure to adequately require and/or implement collection, integration and evaluation of all relevant and available input data for the risk analysis | Relevant and available input data not adequately considered for one or more significant areas or risk factors results in significantly inaccurate risk analysis results for a high percentage of covered segments. | Relevant and available input data not adequately considered for one or more significant areas or risk factors results in significantly inaccurate risk analysis results for a meaningful quantity of covered segments. | Relevant and available input data not adequately considered for one or more significant areas or risk factors resulting in significantly inaccurate risk analysis results for very few/isolated or indeterminate covered segments. | N/A | Unlikely that input data collection or data integration deficiencies results in significantly inaccurate risk analysis results for covered segments. |

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| AF C.4 Failure to use, validate or justify an appropriate risk analysis algorithm to produce results (e.g., justification for weighting factors and key model assumptions) | Inadequate methods used to combine input information in one or more areas of the risk analysis results in significantly inaccurate risk analysis results for a high percentage of covered segments. | Inadequate methods used to combine input information in one or more areas of the risk analysis results in significantly inaccurate risk analysis results for a meaningful quantity of covered segments. | Inadequate methods used to combine input information in one or more areas of the risk analysis results in significantly inaccurate risk analysis results for very few/isolated or indeterminate covered segments. | N/A | Unlikely that inadequacies in the methods to combine risk analysis input information result in significantly inaccurate risk analysis results for covered segments. |
| AF C.5 Failure to include all covered segments in the risk analysis | NA | Failure to include many covered segments in the risk analysis | Failure to include several covered segments in the risk analysis | Failure to include very few/isolated covered segment(s) in the risk analysis. | Unable to verify that all covered segments were included in the risk analysis |
| AF C.6 Failure to adequately identify or analyze significant facility risk factors | NA | Inadequate consideration of significant facility risk factors results in significantly inaccurate risk analysis results for a high percentage of covered facilities. | Inadequate consideration of significant facility risk factors results in significantly inaccurate risk analysis results for a meaningful quantity of covered facilities. | Inadequate consideration of significant facility risk factors resulting in significantly inaccurate risk analysis results for very few/isolated or indeterminate covered facilities. | Unlikely that facility risk has been properly analyzed. |
| AF C.7 Failure to require or adequately maintain the risk analysis up to date. | NA | Risk analysis not adequately up to date in one or more areas results in significantly inaccurate risk analysis results for a high percentage of covered segments. | Risk analysis not adequately up to date in one or more areas results in significantly inaccurate risk analysis results for a meaningful quantity of covered segments. | Risk analysis not adequately up to date in one or more areas results in significantly inaccurate risk analysis results for very few/isolated or indeterminate covered segments. | Unlikely that inadequacies in maintaining the risk analysis up-to-date result in significantly inaccurate results but program requirements inadequate to ensure risk analysis maintained up-to-date. |

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| <p>AF C.8 Failure to adequately document the threat evaluation process, data gathering/integration process, risk analysis process, implementation, validation, and/or results</p> | <p>NA</p> | <p>NA</p> | <p>Documentation was inadequate and very little useful information could be obtained for use in the risk analysis, future assessment scheduling, preventive and mitigative analysis, or periodic evaluations.</p> | <p>Documentation was inadequate and only some useful information could be obtained for use in the risk analysis, future assessment scheduling, preventive and mitigative analysis, or periodic evaluations.</p> | <p>Unlikely that application of risk analysis results to date was adversely affected but documentation of the threat evaluation, risk analysis program requirements, implementation, and/or risk results was inadequate.</p> |
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| D. Direct Assessment | | | | | |
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| AF D.1 Failure to develop and/or implement adequate plans to address external corrosion direct assessment (ECDA) | Likely widespread occurrence of immediate repair conditions overlooked in covered segments due to inadequate program development or implementation. | Likely a meaningful quantity of immediate repair conditions overlooked in covered segments due to inadequate program development or implementation; AND/OR Likely a widespread occurrence of one year and/or monitored repair conditions overlooked in covered segments due to inadequate program development or implementation. | Likely very few/isolated or indeterminate immediate repair conditions overlooked in covered segments due to inadequate program development or implementation; AND/OR Likely a meaningful quantity of one year and/or monitored repair conditions overlooked in covered segments due to inadequate program development or implementation. | Likely very few/isolated or indeterminate one year and/or monitored repair conditions overlooked in covered segments due to inadequate program development or implementation. | Quality of program or its implementation inadequate but unlikely that immediate, one year, or monitored repair conditions (as defined by 192.933) undetected. |
| AF D.2 Failure to develop and/or implement adequate plans to address internal corrosion direct assessment (ICDA) | Likely widespread occurrence of immediate repair conditions overlooked in covered segments due to inadequate program development or implementation. | Likely a meaningful quantity of immediate repair conditions overlooked in covered segments due to inadequate program development or implementation; AND/OR Likely a widespread occurrence of one year and/or monitored repair conditions overlooked in covered segments due to inadequate program development or implementation. | Likely very few/isolated or indeterminate immediate repair conditions overlooked in covered segments due to inadequate program development or implementation; AND/OR Likely a meaningful quantity of one year and/or monitored repair conditions overlooked in covered segments due to inadequate program development or implementation. | Likely very few/isolated or indeterminate one year and/or monitored repair conditions overlooked in covered segments due to inadequate program development or implementation. | Quality of program or its implementation inadequate but unlikely that immediate, one year, or monitored repair conditions undetected. |

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| <p>AF D.3 Failure to develop and/or implement adequate plans to address stress corrosion cracking direct assessment (SCCDA)</p> | <p>Likely widespread occurrence of immediate repair conditions overlooked in covered segments due to inadequate program development or implementation.</p> | <p>Likely a meaningful quantity of immediate repair conditions overlooked in covered segments due to inadequate program development or implementation; AND/OR Likely a widespread occurrence of one year and/or monitored repair conditions overlooked in covered segments due to inadequate program development or implementation.</p> | <p>Likely very few/isolated or indeterminate immediate repair conditions overlooked in covered segments due to inadequate program development or implementation; AND/OR Likely a meaningful quantity of one year and/or monitored repair conditions overlooked in covered segments due to inadequate program development or implementation.</p> | <p>Likely very few/isolated or indeterminate one year and/or monitored repair conditions overlooked in covered segments due to inadequate program development or implementation.</p> | <p>Quality of program or its implementation inadequate but unlikely that immediate, one year, or monitored repair conditions undetected.</p> |
| <p>AF D.4 Failure to adequately perform pre-assessment activities for ECDA and/or ICDA; and/or data collection and evaluation for SCCDA</p> | <p>Likely widespread occurrence of immediate repair conditions overlooked in covered segments due to inadequate program development or implementation.</p> | <p>Likely a meaningful quantity of immediate repair conditions overlooked in covered segments due to inadequate program development or implementation; AND/OR Likely a widespread occurrence of one year and/or monitored repair conditions overlooked in covered segments due to inadequate program development or implementation.</p> | <p>Likely very few/isolated or indeterminate immediate repair conditions overlooked in covered segments due to inadequate program development or implementation; AND/OR Likely a meaningful quantity of one year and/or monitored repair conditions overlooked in covered segments due to inadequate program development or implementation.</p> | <p>Likely very few/isolated or indeterminate one year and/or monitored repair conditions overlooked in covered segments due to inadequate program development or implementation.</p> | <p>Quality of program or its implementation inadequate but unlikely that immediate, one year, or monitored repair conditions undetected.</p> |

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| <p>AF D. 5 Failure to adequately perform indirect examination for ECDA and/or ICDA</p> | <p>Likely widespread occurrence of immediate repair conditions overlooked in covered segments due to inadequate program development or implementation.</p> | <p>Likely a meaningful quantity of immediate repair conditions overlooked in covered segments due to inadequate program development or implementation; AND/OR Likely a widespread occurrence of one year and/or monitored repair conditions overlooked in covered segments due to inadequate program development or implementation.</p> | <p>Likely very few/isolated or indeterminate immediate repair conditions overlooked in covered segments due to inadequate program development or implementation; AND/OR Likely a meaningful quantity of one year and/or monitored repair conditions overlooked in covered segments due to inadequate program development or implementation.</p> | <p>Likely very few/isolated or indeterminate one year and/or monitored repair conditions overlooked in covered segments due to inadequate program development or implementation.</p> | <p>Quality of program or its implementation inadequate but unlikely that immediate, one year, or monitored repair conditions undetected.</p> |
| <p>AF D.6 Failure to adequately perform direct examination for ECDA and/or ICDA; and/or failure to complete an adequate assessment for SCCDA</p> | <p>Likely widespread occurrence of immediate repair conditions overlooked in covered segments due to inadequate program development or implementation.</p> | <p>Likely a meaningful quantity of immediate repair conditions that were overlooked in covered segments due to inadequate program development or implementation; AND/OR Likely widespread occurrence of one year and/or monitored repair conditions overlooked in covered segments due to inadequate program development or implementation.</p> | <p>Likely very few/isolated or indeterminate immediate repair conditions overlooked in covered segments due to inadequate program development or implementation; AND/OR Likely a meaningful quantity of one year and/or monitored repair conditions overlooked in covered segments due to inadequate program development or implementation.</p> | <p>Likely very few/isolated or indeterminate one year and/or monitored repair conditions overlooked in covered segments due to inadequate program development or implementation.</p> | <p>Quality of program or its implementation inadequate but unlikely that immediate, one year, or monitored repair conditions undetected.</p> |
| <p>AF D.7 Failure to adequately determine reassessment intervals from post assessment activities for ECDA,ICDA, and/or SCCDA</p> | <p>NA</p> | <p>Reassessment intervals not justified for many covered segments and intervals appeared to be beyond acceptable timeframes by more than 6 months; or intervals exceeded rule required maximums.</p> | <p>Reassessment intervals not justified for several covered segments and intervals appeared to be beyond acceptable timeframes by more than 6 months; or intervals exceeded rule required maximums.</p> | <p>Reassessment intervals not justified for very few/isolated covered segments and intervals appeared to be beyond acceptable timeframes by more than 6 months; or intervals exceed rule required maximums.</p> | <p>Unlikely that any segments had excessive intervals, but: Reassessment intervals not justified; AND/OR Program inadequate and may cause excessive intervals in the future.</p> |

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| AF D.8 Failure to adequately perform post assessment activities to develop performance measures and validation data for ECDA ICDA, and/or SCCDA. | NA | NA | No attempt to develop or implement performance measures or validation data. | Activities inadequate and likely contributed to low quality DA results | Activities inadequate but unlikely that this problem contributes to low quality DA results. |
| AF D.9 Failure to document or apply more restrictive criteria on an initial ECDA and/or ICDA assessment | Likely widespread occurrence of immediate repair conditions overlooked in covered segments due to the failure to use more restrictive criteria | Likely a meaningful quantity of immediate repair conditions overlooked in covered segments due to the failure to use more restrictive criteria; AND/OR Likely widespread occurrence of one year and/or monitored repair conditions overlooked in covered segments due to the failure to use more restrictive criteria. | likely very few/isolated or uncertain immediate repair conditions overlooked in covered segments due to the failure to use more restrictive criteria; AND/OR Likely a meaningful quantity of one year and/or monitored repair conditions overlooked in covered segments due to the failure to use more restrictive criteria. | Likely very few/isolated or indeterminate one year and/or monitored repair conditions overlooked in covered segments due to the failure to use more restrictive criteria. | Failure to use more restrictive criteria but unlikely that immediate, one year, or monitored repair conditions (as defined in 192.933) undetected. |
| AF D.10 Failure to apply knowledge gained from ECDA, ICDA or SCCDA assessments to similar pipelines in both covered and non covered segments. | Likely widespread occurrence of immediate repair conditions overlooked in covered and non covered segments due to failure to apply knowledge gained from completed DAs. | Likely a meaningful quantity of immediate repair conditions overlooked in covered and non covered segments due to failure to apply knowledge gained from completed DAs; AND/OR Likely widespread occurrence of one year and/or monitored repair conditions overlooked in covered and non covered segments due to failure to apply knowledge gained from completed DAs. | Likely very few/isolated or indeterminate immediate repair conditions overlooked in covered and non covered segments due to failure to apply knowledge gained from completed DAs; AND/OR Likely a meaningful quantity of one year and/or monitored repair conditions overlooked in covered and non covered segments due to failure to apply knowledge gained from completed DAs. | Likely very few/isolated or indeterminate one year and/or monitored repair conditions overlooked in covered and non covered segments due to failure to apply knowledge gained from completed DAs. | Failure to apply knowledge gained from completed DAs but unlikely that immediate, one year, or monitored repair conditions (as defined in 192.933) undetected. |

| E. Remediation | | | | | |
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| AF E.1 Failure to adequately require or use qualified vendors or individuals to perform or review assessments. | Assessment(s) completed or reviewed using non-qualified vendors or individuals likely result in widespread occurrence of immediate repair conditions going undetected. | Assessment(s) completed or reviewed using non-qualified vendors or individuals likely result in a meaningful quantity of immediate repair conditions going undetected; AND/OR Assessment(s) completed or reviewed using non-qualified vendors or individuals likely resulting in widespread occurrence of one year and/or monitored repair conditions going undetected. | Assessment(s) completed or reviewed using non-qualified vendors or individuals likely result in very few/isolated or indeterminate immediate repair conditions going undetected; AND/OR Assessment(s) completed or reviewed using non-qualified vendors or individuals likely result in a meaningful quantity of one year and/or monitored repair conditions going undetected. | Assessment(s) completed or reviewed using non-qualified vendors or individuals likely result in very few/isolated or indeterminate one year and/or monitored repair conditions going undetected. | Assessment(s) completed or reviewed using non-qualified vendors or individuals but it was unlikely that immediate, one year, or monitored repair conditions undetected; AND/OR Unlikely that assessment(s) were completed or reviewed using non-qualified vendors or individuals but qualification requirements were not established in the IM program for vendors or individuals performing or reviewing assessments. |

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| <p>AF E.2 Failure of the program to adequately define discovery; or failure to perform timely discovery of a rule-required repair condition</p> | <p>Widespread occurrence of discovery of immediate repair conditions excessively late for covered segments (e.g. > 14 days beyond the time inspectors determined the condition should have been discovered)</p> | <p>Meaningful quantity of discovery of immediate repair conditions excessively late for covered segments (e.g. > 14 days beyond the time inspectors determined the condition should have been discovered); AND/OR Widespread occurrence of discovery of one year and/or monitored repair conditions excessively late for covered segments (e.g. > 30 days beyond the time inspectors determined the condition should have been discovered)</p> | <p>Very few/isolated or indeterminate occurrence(s) of immediate repair conditions excessively late for covered segments (e.g. > 14 days beyond the time inspectors determined the condition should have been discovered); AND/OR Meaningful quantity of discovery of one year and/or monitored repair conditions excessively late for covered segments (e.g. > 30 days beyond the time inspectors determined the condition should have been discovered)</p> | <p>Very few/isolated or indeterminate occurrence(s) of one year and/or monitored repair conditions excessively late for covered segments (e.g. > 30 days beyond the time inspectors determined the condition should have been discovered)</p> | <p>Inadequate process for specifying discovery but unlikely that any rule-required conditions discovered significantly late or beyond the time inspectors determined condition should have been discovered.</p> |
| <p>AF E.3 Failure to require or complete reviews of assessment results in a quality manner (e.g., inadequate or no consideration for tool tolerance, lack of validation digs, etc); or failure to adequately integrate other available data and information with assessment results</p> | <p>Likely widespread occurrence of immediate repair conditions overlooked in covered segments due to inadequate review of integrity assessment results.</p> | <p>Likely a meaningful quantity of immediate repair conditions overlooked in covered segments due to inadequate review of integrity assessment results; AND/OR Likely widespread occurrence of one year and/or monitored repair conditions overlooked in covered segments due to inadequate review of integrity assessment results.</p> | <p>Likely very few/isolated or indeterminate immediate repair conditions overlooked in covered segments due to inadequate review of integrity assessment results; AND/OR Likely a meaningful quantity of one year and/or monitored repair conditions overlooked in covered segments due to inadequate review of integrity assessment results.</p> | <p>Likely very few/isolated or indeterminate one year and/or monitored repair conditions overlooked in covered segments due to inadequate review of integrity assessment results.</p> | <p>Quality of assessment results review inadequate but unlikely that immediate, one year, or monitored repair conditions undetected.</p> |

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| AF E.4 Failure to adequately require or conduct hydrostatic pressure test in accordance with requirements and/or failure to obtain root cause information on test failures | Widespread occurrence of hydrostatic tests for covered segments that did not meet the time or pressure requirements of Subpart J. | Meaningful quantity of hydrostatic tests for covered segments that did not meet the time or pressure requirements of Subpart J. | Very few/isolated or indeterminate hydrostatic tests for covered segments that did not meet the time or pressure requirements of Subpart J. | One or more occurrences where root cause information was not sought following a hydrostatic test failure. | Unlikely that any hydrostatic test did not meet Subpart J, but the process or associated documents that specified the hydrostatic pressure test failed to address minor requirements (e.g., documentation problems, resolution of inconsistent data). |
| AF E.5 Failure to use the assessment method specified in the BAP | NA | Assessment methods did not follow the BAP and were not appropriate for segment-specific threats for many covered segments. | Assessment methods did not follow the BAP and were not appropriate for segment-specific threats for a meaningful quantity of covered segments. | Assessment methods did not follow the BAP and were not appropriate for segment-specific threats for very few/isolated covered segments. | Tools/methods used did not follow the BAP prescribed method but unlikely that any segment specific threats were overlooked. |
| AF E.6 Use of “other technology” without proper notification. | NA | Use of “other technology” and assessment methods were not appropriate for segment-specific threats for many covered segments. | Use of “other technology” and assessment methods were not appropriate for segment-specific threats for a meaningful quantity of covered segments. | Use of “other technology” and assessment methods were not appropriate for segment-specific threats for very few/isolated covered segments. | No notification made regarding the use of “other technology” but unlikely that any segment specific threats were overlooked. |

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| <p>AF E.7 Failure to require or complete repairs of an anomaly within required timeframes, failure to take a pressure reduction or other means to assure safety, or failure to document the safety basis when repairs are delayed beyond required timeframes.</p> | <p>Widespread occurrence of failure to repair immediate repair anomalies in covered segments (excessively beyond rule requirements, e.g. > 14 days).</p> | <p>Meaningful quantity of failures to repair immediate repair anomalies in covered segments (excessively beyond rule requirements, e.g. > 14 days); AND/OR Widespread occurrence of failure to remediate one year and/or monitored conditions in covered segments (excessively beyond rule requirements, e.g. > 30 days).</p> | <p>Very few/isolated failure(s) to repair immediate repair anomalies in covered segments (excessively beyond rule requirements, e.g. > 14 days); AND/OR Meaningful quantity of failures to remediate one year and/or monitored conditions in covered segments (excessively beyond rule requirements, e.g. > 30 days).</p> | <p>Very few/isolated failure(s) to remediate one year and/or monitored conditions in covered segments (excessively beyond rule requirements, e.g. > 30 days).</p> | <p>Process for specifying repair timeframes inadequate, repairs were late, pressure reduction not taken, or failure to document safety basis for delayed repairs; however, no specific anomaly was repaired significantly beyond rule requirements.</p> |
| <p>AF E.8 Failure to adequately require or implement appropriate pressure reduction when required.</p> | <p>Inadequate program or poor implementation resulted in widespread occurrence of inadequate pressure reductions for immediate repair anomalies in covered segments.</p> | <p>Inadequate program or poor implementation resulted in a meaningful quantity of inadequate pressure reductions for immediate repair anomalies in covered segments; AND/OR Inadequate program or poor implementation results in widespread occurrence of inadequate pressure reductions for one year and/or monitored conditions when repair time requirements not met.</p> | <p>Inadequate program or poor implementation resulted in an very few/isolated inadequate pressure reductions for immediate repair anomalies in covered segments; AND/OR Inadequate program or poor implementation results in a meaningful quantity of inadequate pressure reductions for one year and/or monitored conditions when repair time requirements not met.</p> | <p>Inadequate program or poor implementation results in very few/isolated occurrence(s) of inadequate pressure reductions for one year and/or monitored conditions when repair time requirements not met.</p> | <p>Unlikely that any specific instance occurred where required pressure reduction was not taken but process does not ensure adequate pressure reductions are taken when required.</p> |

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| <p>AF E.9 Failure to notify PHMSA (or failure to require notification) in cases when repair deadlines are not met and pressure reductions are not taken, or the pressure reduction exceeds 365 days.</p> | <p>NA</p> | <p>Inadequate program or poor implementation results in widespread occurrences where required notifications not made.</p> | <p>Inadequate program or poor implementation results in a meaningful quantity of occurrences of required notifications not made.</p> | <p>Inadequate program or poor implementation results in very few/isolated occurrence(s) where one or a few required notifications not made.</p> | <p>Operator did not have adequate process or program requirement to notify PHMSA when repair deadlines not met and pressure reductions not subsequently taken, or when a pressure reduction exceeded 365 days; but unlikely that any required notifications were actually missed.</p> |
| <p>AF E.10 Failure to adequately document implementation of program requirements, remediation activities or results</p> | <p>NA</p> | <p>NA</p> | <p>Documentation inadequate and very little useful information could be obtained for use in future risk analysis, preventive and mitigative analysis, or periodic evaluations.</p> | <p>Documentation inadequate and only some useful information could be obtained for use in future risk analysis, preventive and mitigative analysis, or periodic evaluations.</p> | <p>Documentation of program requirements, remediation activities, and/or results inadequate, but unlikely that future risk analysis, preventive and mitigative analysis, or periodic evaluations adversely affected.</p> |

| F. Continual Evaluation and Assessment | | | | | |
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| AF F.1 Failure to require, perform, or document periodic evaluations of pipeline integrity (including non-routine evaluations when conditions warrant) | NA | <p>Failure to conduct periodic evaluations; OR</p> <p>Failure to have a process requiring periodic evaluations; OR</p> <p>Failure to adequately consider many or all of the rule required elements for periodic evaluation; OR</p> <p>Failure to adequately apply results for many covered segments.</p> | <p>Failure to adequately consider several of the rule-required elements for periodic evaluations; OR</p> <p>Failure to adequately apply results for several covered segments.</p> | <p>Failure to adequately consider at least one of the rule-required elements for periodic evaluations; OR</p> <p>Failure to adequately apply results for very few/isolated covered segments.</p> | Unable to determine if periodic evaluation was adequate due to poor documentation or poor process description. |
| AF F.2 Failure to complete reassessments within rule-required timeframes; or reassessments performed more than six months beyond the scheduled date. | NA | Widespread occurrence of reassessments not completed within rule-required timeframes. | Meaningful quantity of reassessments not completed within rule-required timeframes. | Very few/isolated occurrence(s) of reassessments not being completed within rule-required timeframes. | Unlikely that a reassessment not completed within rule required timeframes, but minor discrepancies identified with the scheduling and completion of reassessments such as not completing the assessments within six months of the scheduled date. |
| AF F.3 Failure to require, establish or justify appropriate reassessment intervals | NA | Reassessment intervals not justified for many covered segments and intervals appear to be beyond acceptable timeframes by more than 6 months, or intervals exceeded rule required maximums. | Reassessment intervals not justified for a meaningful quantity of covered segments and intervals appear to be beyond acceptable timeframes by more than 6 months, or intervals exceeded rule required maximums. | Reassessment intervals not justified for very few/isolated covered segments and intervals appear to be beyond acceptable timeframes by more than 6 months, or intervals exceed rule-required maximums. | Unlikely that any segments had excessive intervals, but: Reassessment intervals not justified; AND/OR Program inadequate and may cause excessive intervals in the future. |

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| AF F.4 Failure to specify adequate requirements for assessment method selection; and/or failure to specify the correct assessment tool for reassessments; and/or failure to justify the method selected | NA | Reassessment methods likely not appropriate for segment-specific threats for many covered segments. | Reassessment methods likely not appropriate for segment-specific threats for a meaningful quantity of covered segments. | Reassessment methods likely not appropriate for segment-specific threats for very few/isolated or indeterminate covered segments. | Process used to specify reassessment tools inadequate but unlikely that any threats in covered segments did not receive an appropriate reassessment. |
| AF F.5 Failure to require or complete the submittal of an interval variance when the re-assessment interval exceeds rule specified maximums | NA | NA | NA | Examples identified where re-assessment interval scheduled to, or did exceed rule specified maximums and notification to PHMSA was not made. | No examples identified where re-assessment interval scheduled to, or did exceed rule specified maximums, but no program requirement to request a variance or notify PHMSA. |
| AF F.6 Failure to require that periodic evaluation results be documented, or failure to document periodic evaluation results | NA | NA | Documentation inadequate and very little useful information could be obtained for use in future assessment scheduling, preventive and mitigative analysis, or periodic evaluations. | Documentation inadequate and only some useful information could be obtained for use in future assessment scheduling, preventive and mitigative analysis, or periodic evaluations. | Documentation of periodic evaluation results inadequate and needs to be improved to fully meet the integrity management program requirements. |

| G. Confirmatory Direct Assessment (CDA) | | | | | |
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| AF G.1 Failure to restrict the use of CDA to external and internal corrosion | NA | Likely widespread occurrence of CDA being used to address threats other than external and internal corrosion. | Likely a meaningful occurrence of CDA being used to address threats other than external and internal corrosion. | Likely very few/isolated occurrence(s) of CDA being used to address threats other than external and internal corrosion. | Process used to specify CDA application inadequate but unlikely that any threats in covered segments did not have an appropriate assessment method specified. |
| AF G.2 Failure to develop and/or implement adequate CDA plans | Likely widespread occurrence of immediate repair conditions overlooked in covered segments due to inadequate program development or implementation. | Likely a meaningful quantity of immediate repair conditions overlooked in covered segments due to inadequate program development or implementation; AND/OR Likely a widespread occurrence of one year and/or monitored repair conditions overlooked in covered segments due to inadequate program development or implementation. | Likely very few/isolated or indeterminate immediate repair conditions that were overlooked in covered segments due to inadequate program development or implementation; AND/OR Likely a meaningful quantity of one year and/or monitored repair conditions overlooked in covered segments due to inadequate program development or implementation. | Likely very few/isolated or indeterminate one year and/or monitored repair conditions overlooked in covered segments due to inadequate program development or implementation. | Quality of program or its implementation was inadequate but unlikely that immediate, one year, or monitored repair conditions undetected. |

| H. Preventive and Mitigative Actions | | | | | |
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| AF H.1 Failure to establish and/or implement an adequate preventive and mitigative process. | Likely that inadequate program or poor implementation results in significant P&M measures for a widespread occurrence of covered segments being overlooked. | Likely that inadequate program or poor implementation results in significant P&M measures for a meaningful quantity of covered segments being overlooked. | Likely that inadequate program or poor implementation resulted in significant P&M measures for very few/isolated or indeterminate covered segments being overlooked. | NA | Inadequate program but unlikely that significant preventive or mitigative actions were or will be overlooked. |
| AF H.2 Failure to adequately consider or implement preventive and mitigative actions regarding threats from third party damage, outside force, or corrosion. | Likely that an inadequate program or poor implementation results in significant P&M measures for a widespread occurrence of covered segments being overlooked. | Likely that inadequate program or poor implementation results in significant P&M measures for a meaningful quantity of covered segments being overlooked. | Likely that inadequate program or poor implementation resulted in significant P&M measures for very few/isolated or indeterminate covered segments being overlooked. | NA | Inadequate program but unlikely that significant preventive or mitigative actions were or will be overlooked. |
| AF H.3 Failure to adequately consider risk analysis in making preventive and mitigative decisions | Likely that inadequate program or poor implementation results in significant P&M measures for a widespread occurrence of covered segments being overlooked. | Likely that inadequate program or poor implementation results in significant P&M measures for a moderate occurrence of covered segments being overlooked. | Likely that inadequate program or poor implementation results in significant P&M measures for very few/isolated or indeterminate covered segments being overlooked. | NA | Inadequate program but unlikely that significant preventive or mitigative actions were or will be overlooked. |
| AF H.4 Failure to consider or implement additional preventive and mitigative measures to protect HCAs from pipelines operating at <30% SMYS and/or non-pipeline facilities | NA | Likely that inadequate program or poor implementation results in significant P&M measures for a widespread occurrence of covered segments being overlooked. | Likely that inadequate program or poor implementation results in significant P&M measures for a meaningful quantity of covered segments being overlooked. | Likely that inadequate program or poor implementation results in significant P&M measures for very few/isolated or indeterminate covered segments being overlooked. | Inadequate program but unlikely that significant preventive or mitigative actions were or will be overlooked. |

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| AF H.5 Failure to justify the exclusion of significant preventive and mitigative measures | Likely that inadequate program or poor implementation results in significant P&M measures for a widespread occurrence of covered segments being overlooked. | Likely that inadequate program or poor implementation results in significant P&M measures for a meaningful quantity of covered segments being overlooked. | Likely that inadequate program or poor implementation results in significant P&M measures for very few/isolated or indeterminate covered segments being overlooked. | NA | Unlikely any significant preventive or mitigative actions inappropriately excluded, but program not adequate to ensure appropriate decisions will be made in the future. |
| AF H.6 Failure to implement significant preventive and mitigative measures in a timely manner | NA | Inadequate program or poor implementation results in significant P&M measures for many covered segments not implemented in a timely manner. | Inadequate program or poor implementation results in significant P&M measures for a meaningful quantity of covered segments not implemented in a timely manner. | Inadequate program or poor implementation resulted in significant P&M measures for very few/isolated or indeterminate covered segments not implemented in a timely manner. | Unlikely that implementation of any specific preventive or mitigative action was not timely, but program not adequate to ensure adequate future timely implementation. |
| AF H.7 Failure to adequately require, document, or complete the required evaluations regarding automatic shutoff valves or remote control valves. | NA | NA | Likely that inadequate evaluation of automatic or remote shutoff valves (e.g., not addressing required risk factors) results in many HCAs receiving significantly reduced levels of protection. | Likely that inadequate evaluation of automatic or remote shutoff valves (e.g., not addressing required risk factors) results in very few/isolated or indeterminate HCAs receiving significantly reduced levels of protection. | Operator evaluations inadequate or documentation inadequate, but unlikely that any HCAs received or will receive significantly reduced levels of protection. |
| AF H.8 Failure to adequately document preventive and mitigative program implementation and/or preventive and mitigative decisions | NA | NA | Documentation was inadequate and very little useful information could be obtained for use in future assessment scheduling, preventive and mitigative analysis, or periodic evaluations. | Documentation was inadequate and only some useful information could be obtained for use in future assessment scheduling, preventive and mitigative analysis, or periodic evaluations. | Unlikely that future assessment schedules or preventive and mitigative analyses were adversely affected but documentation of program implementation, and/or preventive and mitigative decisions was inadequate. |

| I. Performance Measures | | | | | |
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| AF I.1 Failure to adequately develop, document, track, and/or analyze required performance metrics | NA | NA | No attempt to implement a performance evaluation program. | Program did not address one or more required performance metrics in its program; AND/OR Program was inadequate and likely contributes to low quality integrity management processes. | Inadequate performance evaluation program (e.g., inadequate metrics, not effective at identifying needed actions) but unlikely that this problem contributes to low quality integrity management programs. |
| AF I.2 Failure of the program to require filing of performance metrics; and/or failure to file required performance metrics | NA | NA | NA | Required performance metrics were not submitted to PHMSA and/or applicable States on more than one occasion. | Required performance metrics were not submitted to PHMSA and/or applicable States on one occasion; AND/OR Program requirements did not adequately address reporting requirements for performance metrics |
| AF I.3 For performance based plans, failure to adequately develop, track, and/or analyze required performance metrics | NA | NA | No attempt to implement a performance evaluation program. | Program inadequate and likely contributes to low quality integrity management processes | Inadequate performance evaluation program (e.g., inadequate metrics, not effective at identifying needed actions) but unlikely this problem contributes to low quality integrity management programs. |
| AF I.4 Failure to develop an adequate performance evaluation program including failure to include goals, internal audits or reviews, and/or adequate metrics | NA | NA | No attempt to implement a performance evaluation program. | Program was inadequate and likely contributes to low quality integrity management processes | Inadequate performance evaluation program (e.g., inadequate metrics, not effective at identifying needed actions) but unlikely this problem contributes to low quality integrity management programs. |

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| AF I.5 Failure to implement actions identified by the performance evaluation program | NA | NA | Likely that inadequate program or poor implementation results in widespread occurrence of significant corrective actions not implemented to protect covered segments, or significant IM program/process improvements not implemented that would impact many HCAs. | Likely that inadequate program or poor implementation results in occurrences (less than widespread) of significant corrective actions not implemented to protect covered segments, or program/process improvements not implemented that would impact HCAs (less than characterized as “many”). | Unlikely that inadequate program or poor implementation resulted in significant corrective actions not implemented, or significant program/process improvements not implemented. However, program is inadequate to effectively implement corrective actions and improvements in the future. |
| AF I.6 Failure to require or implement periodic updates of the performance metrics or other evaluation methods as systems and conditions change (such as root cause analysis information on failures and events) | NA | NA | Likely that inadequate updating of performance evaluation program results in low quality in many or several IM processes, or widespread occurrence of significant corrective actions overlooked for covered segments. | Likely that inadequate updating of the performance evaluation program results in low quality in very few/isolated IM processes, or significant corrective actions overlooked for covered segments (less than a widespread occurrence). | Unlikely that a significant IM process problem or corrective action deficiency is linked to failure to update the performance metrics or program evaluation process. However, the program is inadequate, and could lead to problems in the future. |

| J. Record Keeping | | | | | |
|---|----|----|---|--|---|
| AF J.1 Failure to specify or implement necessary record keeping requirements (e.g. adequately documenting decision making activities) | NA | NA | Inadequate record keeping results in extensive problems documenting decision-making activities to the point where the effectiveness of the integrity management program is in question. | Inadequate record keeping results in some problems documenting decision-making activities to the point where the effectiveness of one or two integrity management program elements is in question. | Unlikely the effectiveness of IM program(s) were affected but record keeping program requirements and/or implementation inadequate and need to be improved to fully meet the integrity management program requirements. |

| K. Management of Change | | | | | |
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| AF K.1 Failure to develop and/or implement an adequate management of change process (including failure to document the reason for changes and failure to address the required attributes for the change process) | NA | No attempt to implement an adequate management of change process. | Management of change process inadequate and likely contributes to significant integrity management problems within the operator's covered segments. | Management of change process inadequate and likely contributes to low quality integrity management processes. | Inadequate management of change process but unlikely that this problem contributes to low quality integrity management programs. |
| AF K.2 Failure to consider (in the management of change process) the impact of pipeline changes on the integrity management program | NA | NA | Failure to consider pipeline changes in the management of change process likely contributes to significant widespread integrity management problems within the operator's covered segments. | Failure to consider pipeline changes in the management of change process likely contributes to isolated integrity management problems within the operator's covered segments. | Program fails to consider pipeline changes in the management of change process but unlikely this problem contributed to specific integrity management problems within the operator's covered segments. |
| AF K.3 Failure to adequately require or implement notification(s) to PHMSA and/or State or local authorities for significant changes to IM program, program implementation, and/or schedules. | NA | NA | NA | Significant changes to the IM program where the operator did not notify PHMSA and/or applicable State or local authorities in a timely manner. | No specific failure to notify PHMSA and/or States/locals but program requirements inadequate to ensure that future significant IM program changes would be reported as required |

| L. Quality Assurance | | | | | |
|---|----|---|--|---|---|
| AF L.1 Failure to develop and/or implement an adequate quality assurance program (e.g., failure to define authorities and responsibilities, failure to perform periodic reviews of the integrity management program, or failure to invoke quality requirements for outside contractors) | NA | No attempt to implement an adequate quality assurance program. | Quality assurance program inadequate and likely contributes to significant integrity management problems within the operator's covered segments | Quality assurance program inadequate and likely contributes to low quality integrity management processes or poor performance by outside contractors | Inadequate quality assurance program but unlikely that this problem contributes to low quality integrity management programs. |
| AF L.2 Failure to adequately identify, track, and/or implement timely corrective actions in response to identified problems | NA | No attempt to implement any corrective actions in response to widespread problems uncovered by the quality assurance process. | Corrective actions process inadequate and likely contributes to significant integrity management problems within the operator's covered segments | Corrective actions process inadequate and likely contributes to low quality integrity management processes or isolated problems within the operator's covered segments | Inadequate corrective action process but unlikely this problem contributes to low quality integrity management programs or any specific problem on a covered segment. |
| AF L.3 Failure to adequately require, document, and/or implement qualification requirements for personnel as specified in the rule and B31.8S. | NA | No attempt to implement a personnel qualification program as required. | Personnel qualification program inadequate and likely contributes to significant integrity management problems within the operators covered segments | Personnel qualification program inadequate and likely contributes to low quality integrity management processes or isolated problems within the operator's covered segments | Inadequate personnel qualification program but unlikely this problem contributes to low quality integrity management programs or any specific problem on a covered segment. |
| AF L.4 Failure to address in an appropriate manner non-mandatory requirements in industry standards that are invoked by the IM rule. | NA | NA | No attempt to address non-mandatory requirements in industry standards invoked by the IM rule. | Approach taken to address non-mandatory requirements in industry standards inadequate and many important requirements overlooked. | Approach taken to address non-mandatory requirements in industry standards inadequate but unlikely that many important requirements overlooked. |

| M. Communications | | | | | |
|---|----|----|---|---|--|
| AF M.1 Failure to develop and/or implement an adequate external communications program. | NA | NA | External communications plan inadequate and leads to widespread integrity management problems within the operator's covered segments (e.g., third party damage) | External communications plan inadequate and leads to isolated integrity management problems within the operator's covered segments (e.g., third party damage) | Inadequate external communications plan but unlikely that problem contributes to low quality integrity management programs or any specific problem on a covered segment. |
| AF M.2 Failure to develop and/or implement an adequate internal communications program | NA | NA | Internal communications plan inadequate and leads to widespread integrity management problems within the operator's covered segments (e.g., operator error) | Internal communications plan inadequate and leads to isolated integrity management problems within the operator's covered segments (e.g., operator error) | Inadequate internal communications plan but unlikely this problem contributes to low quality integrity management programs or any specific problem on a covered segment. |

| N. Submittal of Program Documents | | | | | |
|---|----|----|----|---|--|
| AF N.1 Failure to require or make integrity management program documents available to PHMSA and applicable States | NA | NA | NA | No provision in operator's program to address this requirement, and the operator did not provide documents when requested by PHMSA or applicable State/local authority. | No provision in the operator's program to address this requirement but the operator did provide documents when requested by PHMSA or applicable State/local authority. |

Table 1B - Risk Category Guidance Table for Hazardous Liquid IM

| Liquid IM Area Finding | Risk Category | | | | |
|---|--|--|--|---|--|
| | A | B | C | D | E |
| 1. Segment Identification | | | | | |
| AF 1.1 Failure to adequately identify segments affecting HCAs; or failure to define adequate process requirements for segment identification (e.g., analysis of spills, spread, HVLs, water transport, location of HCAs, etc) | Likely that a systemic problem caused by an inadequate program or poor implementation results in widespread occurrence of HCA-affecting segments not being identified. | Likely that an inadequate program or poor implementation results in a meaningful quantity of HCA-affecting segments not being identified. | Likely that an inadequate program or poor implementation results in very few/isolated or indeterminate occurrence(s) of HCA-affecting segments not being identified. | NA | Unlikely that specific HCA-affecting segments missed but program does not address all required elements. |
| AF 1.2 Failure to require or properly update the locations of HCAs and/or update the identification of segments that could affect HCAs | NA | Likely that failure to periodically update identification of HCA-affecting segments results in widespread occurrence of missing HCA-affecting segments and the condition exists for over one year. | Likely that failure to periodically update identification of HCA-affecting segments results in a meaningful quantity of missing HCA-affecting segments and the condition exists for over one year. | Likely that failure to periodically update identification of HCA-affecting segments results in very few/isolated or indeterminate occurrence(s) of missing HCA-affecting segments and the condition exists for over one year. | Unlikely that specific HCA-affecting segments missed for over a year but segment identification update process incomplete or inadequate. |
| AF 1.3 Failure to require the use of or adequately consider local knowledge, field input, and other sources to update HCA information | NA | Likely that failure to use other sources to update HCA information results in widespread occurrence of HCA-affecting segments not being identified and the condition exists for over one year. | Likely that failure to use other sources to update HCA information results in a meaningful quantity of HCA-affecting segments not being identified and the condition exists for over one year. | Likely that failure to use other sources to update HCA information results in very few/isolated or indeterminate HCA-affecting segments not being identified and the condition exists for over one year. | Unlikely that specific HCA-affecting segments missed for over a year but the segment identification update process incomplete or inadequate. |

| Liquid IM Area Finding | Risk Category | | | | |
|--|---|---|---|---|--|
| | A | B | C | D | E |
| AF 1.4 Failure to adequately consider or include all applicable pipelines in the segment identification process, including failure to identify segments that could affect HCAs for idle pipe | Likely that inadequate program or poor implementation results in widespread occurrence of segments not being identified as HCA-affecting. | Likely that inadequate program or poor implementation results in a meaningful quantity of segments not being identified as HCA-affecting. | Likely that inadequate program or poor implementation results in very few/isolated or indeterminate segments not being identified as HCA-affecting. | NA | Unlikely that specific HCA-affecting segments missed but program did not consider all required segments. |
| AF 1.5 Failure to require or complete segment identification process as required when bringing additional line(s) into service | NA | Likely widespread occurrence of HCA-affecting segments not being identified and the condition exists for over one year. | Likely a meaningful quantity of HCA-affecting segments not being identified and the condition exists for over one year. | Likely very few/isolated or indeterminate HCA-affecting segments not being identified and the condition exists for over one year. | Unlikely that specific HCA-affecting segments missed for over a year but segment identification process not required to be performed or not completed on additional lines as required. |
| AF 1.6 Failure to adequately document completion of required tasks specified in the segment identification process or revisions to the process. | NA | NA | NA | NA | Operator did not document all required tasks or revisions to the segment identification process. |
| AF 1.7 Failure to require or adequately analyze facilities for potential HCA impact | NA | Likely inadequate program or poor implementation results in widespread occurrence of facilities not being identified as HCA-affecting. | Likely inadequate program or poor implementation results in a meaningful quantity of facilities not being identified as HCA-affecting. | Likely inadequate program or poor implementation results in very few/isolated facilities not being identified as HCA-affecting. | Unlikely that a specific HCA-affecting facility was overlooked, but HCA identification process for facilities incomplete or inadequate. |

| 2. Baseline Assessment Plan | | | | | |
|---|--|--|--|---|---|
| AF 2.1 Failure to complete a baseline assessment on 100% of the HCA affected segment(s) within the required rule timeframe | Widespread occurrence of baseline assessments for HCA-affecting segments not being completed within the rule requirements. | Meaningful quantity of baseline assessments for HCA-affecting segments not being completed within the rule requirements. | Very few/isolated occurrence(s) of baseline assessments for HCA-affecting segments not being completed within the rule requirements. | NA | Unlikely that a specific HCA-affecting segment missed the deadline but minor discrepancies identified with the scheduling and completion of baseline assessments such as not completing the assessments within 90 days of the scheduled date. |
| AF 2.2 Failure to complete assessments for at least half the HCA-affecting segments by the required deadline for completing 50% | Widespread occurrence of assessments for HCA-affecting segments in the top 50% not being completed within rule requirements. | Meaningful quantity of assessments for HCA-affecting segments in the top 50% not being completed within rule requirements. | Very few/isolated occurrence(s) of assessments for HCA-affecting segments in the top 50% not being completed within rule requirements. | NA | Unlikely that a specific HCA-affecting segment missed the deadline but minor discrepancies identified with the scheduling and completion of baseline assessments such as not completing the assessments within 90 days of the scheduled date. |
| AF 2.3 Inappropriate credit taken for prior assessment(s) | NA | Widespread occurrence of prior assessments inappropriately credited for HCA-affecting segments and correct assessments not completed within rule requirements. | Meaningful quantity of prior assessments inappropriately credited for HCA-affecting segments and correct assessments not completed within rule requirements. | Very few/isolated occurrence(s) where prior assessments inappropriately credited for HCA-affecting segments and correct assessments not completed within rule requirements. | Prior assessments inappropriately credited but correct assessments were, or are, scheduled to be completed within rule requirements. |

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| AF 2.4 Failure to adequately prioritize segments for baseline assessments (e.g., used no risk evaluation or inadequate risk evaluation) | NA | Operator did not perform risk-based prioritization of segments for baseline assessment plan schedule; OR Likely that inadequate program or poor implementation results in widespread occurrence of assessments for high-risk segments being inappropriately scheduled. | Likely that inadequate program or poor implementation results in a meaningful quantity of assessments for high-risk HCA-affecting segments being inappropriately scheduled. | Likely that inadequate program or poor implementation result in very few/isolated or indeterminate assessments for high-risk HCA-affecting segments being inappropriately scheduled. | Unlikely that assessments for any high-risk HCA-affecting segments inappropriately scheduled, but minor inadequacies in prioritization process. |
| AF 2.5 Failure to specify or justify the correct assessment tool/method | Likely widespread occurrence of assessment methods not being appropriate for segment-specific threats for HCA-affecting segments. | Likely a meaningful quantity of assessment methods not being appropriate for segment-specific threats for HCA-affecting segments. | Likely very few/isolated occurrence(s) of assessment methods not being appropriate for segment-specific threats for HCA-affecting segments. | NA | Process used to specify assessment tools inadequate but unlikely that an appropriate assessment method not specified for any threats in HCA-affecting segments. |
| AF 2.6 Failure to update the BAP and/or complete assessments on new HCA-affecting segments within rule requirements, including failure to perform an assessment on idle pipe before returning it to service | NA | Widespread occurrence of new HCA-affecting segments not being included in the baseline assessment plan and/or assessments not completed within rule requirements. | Meaningful quantity of new HCA-affecting segments not being included in the baseline assessment plan and/or assessments not completed within rule requirements. | Very few/isolated new HCA-affecting segments not included in the baseline assessment plan and/or assessments not completed within rule requirements. | Minor discrepancies identified with updating of the baseline assessment plan but unlikely that new HCA-affecting segments overlooked or assessments not completed within rule requirements. |
| AF 2.7 Failure to adequately define the BAP process and/or develop a BAP in accordance with rule requirements. | No attempt made to develop a baseline assessment plan; OR Widespread occurrence of HCA-affecting segments not included in the baseline assessment plan. | Meaningful quantity of HCA-affecting segments not included in the baseline assessment plan. | Very few/isolated or indeterminate HCA-affecting segments not included in the baseline assessment plan; AND/OR One or more rule required elements not included in the BAP | NA | Minor discrepancies identified with development of the baseline assessment plan (such as a failure to have a detailed near term schedule) but unlikely that HCA-affecting segments overlooked. |

| 3. Integrity Assessment Review | | | | | |
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| AF 3.1 Failure to adequately require or use qualified vendors or individuals to perform or review assessments. | Assessments completed or reviewed using non-qualified vendors or individuals likely results in widespread occurrence of immediate repair conditions going undetected. | Assessments completed or reviewed using non-qualified vendors or individuals likely results in a meaningful quantity of immediate repair conditions going undetected; AND/OR Assessments completed or reviewed using non-qualified vendors or individuals likely results in widespread occurrence of 60-day and/or 180-day repair conditions going undetected. | Assessment(s) completed or reviewed using non-qualified vendors or individuals likely results in very few/isolated or indeterminate occurrence(s) of immediate repair conditions going undetected; AND/OR Assessments completed or reviewed using non-qualified vendors or individuals likely results in a meaningful quantity of 60-day and/or 180-day repair conditions going undetected. | Assessment(s) completed or reviewed using non-qualified vendors or individuals likely results in very few/isolated or indeterminate occurrence(s) of 60-day and/or 180-day repair conditions going undetected. | Assessment(s) completed or reviewed using non-qualified vendors or individuals but unlikely that immediate, 60-day, or 180-day repair conditions went undetected; AND/OR Unlikely that assessment(s) completed or reviewed using non-qualified vendors or individuals but qualification requirements not established in the IM program for vendors or individuals performing or reviewing assessments |

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| <p>AF 3.2 Failure of the program to adequately define discovery; or failure to perform timely discovery of a rule-required repair condition</p> | <p>Widespread occurrence of discovery of immediate repair conditions excessively late for HCA-affecting segments (e.g. > 14 days beyond the time the condition should have been discovered)</p> | <p>Meaningful quantity of discovery of immediate repair conditions excessively late for HCA-affecting segments (e.g. > 14 days beyond the time the condition should have been discovered); AND/OR Widespread occurrence of discovery of 60-day and/or 180-day repair conditions was excessively late for HCA-affecting segments (e.g. > 30 days beyond the time condition should have been discovered)</p> | <p>Very few/isolated or indeterminate discovery of immediate repair conditions excessively late for HCA-affecting segments (e.g. > 14 days beyond the time the condition should have been discovered); AND/OR Meaningful quantity of discovery of 60-day and/or 180-day repair conditions excessively late for HCA-affecting segments (e.g. > 30 days beyond the time condition should have been discovered)</p> | <p>Very few/isolated or indeterminate discovery of 60-day and/or 180-day repair conditions excessively late for HCA-affecting segments (e.g. > 30 days beyond the time condition should have been discovered)</p> | <p>Process for specifying discovery inadequate but unlikely that any rule-required condition was/will be discovered significantly late or beyond the time the condition should be discovered.</p> |
| <p>AF 3.3 Failure to adequately require or identify/classify repair conditions from assessment results, including:</p> <ul style="list-style-type: none"> • Inadequate or no consideration for tool tolerance, • Deficient validation technique • Inadequate or incorrect vendor specifications • Failure to adequately integrate other available data and information with assessment results | <p>Likely widespread occurrence of immediate repair conditions overlooked in HCA-affecting segments due to inadequate specifications or review of integrity assessment results.</p> | <p>Likely a meaningful quantity of immediate repair conditions overlooked in HCA-affecting segments due to inadequate specifications or review of integrity assessment results; AND/OR Likely widespread occurrence of 60-day and/or 180-day repair conditions overlooked in HCA-affecting segments due to inadequate specifications or review of integrity assessment results.</p> | <p>Likely very few/isolated or indeterminate immediate repair conditions overlooked in HCA-affecting segments due to inadequate specifications or review of integrity assessment results; AND/OR Likely a meaningful quantity of 60-day and/or 180-day repair conditions overlooked in HCA-affecting segments due to inadequate specifications or review of integrity assessment results.</p> | <p>Likely very few/isolated or indeterminate 60-day and/or 180-day repair conditions overlooked in HCA-affecting segments due to inadequate specifications or review of integrity assessment results.</p> | <p>Quality of tool vendor specifications or assessment results review inadequate but unlikely that immediate, 60-day, or 180-day repair conditions undetected.</p> |

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| AF 3.4 Failure to adequately require or conduct hydrostatic pressure test in accordance with requirements and/or failure to obtain root cause information on test failures | Widespread occurrence of hydrostatic tests for HCA-affecting segments not meeting the time or pressure requirements of Subpart E. | Meaningful quantity of hydrostatic tests for HCA-affecting segments not meeting the time or pressure requirements of Subpart E. | Very few/isolated or indeterminate hydrostatic tests for HCA-affecting segments not meeting the time or pressure requirements of Subpart E. | One or more occurrences where root cause information not sought following a hydrostatic test failure. | Unlikely that any hydrostatic test did not meet Subpart E, but the process or associated documents that specify the hydrostatic pressure test fail to address minor requirements (e.g., documentation problems, resolution of inconsistent data). |
| AF 3.5 Failure to use the assessment method specified in the BAP | NA | Assessment methods did not follow the BAP and were not appropriate for segment-specific threats for many HCA-affecting segments. | Assessment methods did not follow the BAP and were not appropriate for segment-specific threats for a meaningful quantity of HCA-affecting segments. | Assessment methods did not follow the BAP and were not appropriate for segment-specific threats for very few/isolated HCA-affecting segments. | Tools/methods did not follow the BAP-prescribed method but unlikely that any segment specific threats were overlooked. |
| AF 3.6 Use of “other technology” without proper notification. | NA | Use of “other technology” and assessment methods were not appropriate for segment-specific threats for many HCA-affecting segments. | Use of “other technology” and assessment methods were not appropriate for segment-specific threats for a meaningful quantity of HCA-affecting segments. | Use of “other technology” and assessment methods were not appropriate for segment-specific threats very few/isolated HCA-affecting segments. | No notification made regarding the use of “other technology” but unlikely that any segment specific threats were overlooked. |

| 4. Remedial Action | | | | | |
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| AF 4.1 Failure to require, schedule or complete repairs of an anomaly within required timeframes | Widespread occurrence of failure to repair immediate repair anomalies in HCA-affecting segments (excessively beyond rule requirements, e.g. > 14 days). | Meaningful quantity of failure to repair immediate repair anomalies in HCA-affecting segments (excessively beyond rule requirements, e.g. > 14 days); AND/OR Widespread occurrence of failure to remediate 60 or 180-day conditions in HCA-affecting segments (excessively beyond rule requirements, e.g. > 30 days). | Very few/isolated or indeterminate failure to repair immediate repair anomalies in HCA-affecting segments (excessively beyond rule requirements, e.g. > 14 days); AND/OR Meaningful quantity of failure to remediate 60 or 180-day conditions in HCA-affecting segments (excessively beyond rule requirements, e.g. > 30 days). | Very few/isolated or indeterminate failure to remediate 60 or 180-day conditions in HCA-affecting segments (excessively beyond rule requirements, e.g. > 30 days). | Process for specifying repair schedules inadequate or repairs late, but no specific anomaly repaired significantly beyond rule requirements. |
| AF 4.2 Failure to adequately require or implement appropriate pressure reduction when required | Inadequate program or poor implementation results in widespread occurrence of inadequate pressure reductions for immediate repair anomalies in HCA-affecting segments. | Inadequate program or poor implementation results in a meaningful quantity of inadequate pressure reductions for immediate repair anomalies in HCA-affecting segments; AND/OR Inadequate program or poor implementation results in widespread occurrence of inadequate pressure reductions for 60 and 180-day conditions when repair time requirements not met. | Inadequate program or poor implementation results in very few/isolated or indeterminate inadequate pressure reductions for immediate repair anomalies in HCA-affecting segments; AND/OR Inadequate program or poor implementation results in a meaningful quantity of inadequate pressure reductions for 60 and 180-day conditions when repair time requirements not met. | Inadequate program or poor implementation results in very few/isolated or indeterminate occurrence(s) of inadequate pressure reductions for 60 and 180-day conditions when repair time requirements not met. | Unlikely that any specific instance occurred where required pressure reduction not taken but process does not ensure adequate pressure reductions are taken when required. |

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| <p>AF 4.3 Failure to notify PHMSA or require notification when repair deadlines were not met and pressure reductions were not taken, or when a pressure reduction exceeded 365 days.</p> | <p>NA</p> | <p>Inadequate program or poor implementation results in widespread occurrence where required notifications not made.</p> | <p>Inadequate program or poor implementation results in a meaningful quantity of occurrences where required notifications not made.</p> | <p>Inadequate program or poor implementation results in very few/isolated occurrence(s) where required notifications were not made.</p> | <p>Operator did not have an adequate process or program requirement to notify PHMSA when repair deadlines not met and pressure reductions not subsequently taken, or when a pressure reduction exceeded 365 days; however, it was unlikely that any required notifications were missed.</p> |
| <p>AF 4.4 Failure to adequately document implementation of program requirements, remediation activities and/or results</p> | <p>NA</p> | <p>NA</p> | <p>Documentation inadequate and very little useful information could be obtained for use in future risk analysis, preventive and mitigative analysis, or periodic evaluations.</p> | <p>Documentation inadequate and only some useful information could be obtained for use in future risk analysis, preventive and mitigative analysis, or periodic evaluations.</p> | <p>Unlikely that future risk analysis, preventive and mitigative analysis or periodic evaluations were adversely affected but documentation of program requirements, remediation activities, and/or results were inadequate.</p> |

| 5. Risk Analysis | | | | | |
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| AF 5.1 Failure to adequately identify or analyze significant risk factors; or failure to justify excluding relevant segment risk factors such as susceptibility to SCC or low-frequency ERW pipe | Inadequate or no consideration of one or more significant risk factors results in significantly inaccurate risk analysis results for a high percentage of HCA-affecting segments. | Inadequate or no consideration of one or more significant risk factors results in significantly inaccurate results for a meaningful quantity of HCA-affecting segments. | Inadequate or no consideration of one or more significant risk factors results in significantly inaccurate risk analysis results for very few/isolated or indeterminate HCA-affecting segments. | N/A | Unlikely that inadequate consideration of certain risk factors results in significantly inaccurate risk analysis results. |
| AF 5.2 Failure to develop or implement an adequate risk analysis process. | Risk analysis approach inadequacies in one or more areas result in significantly inaccurate results for a high percentage of HCA-affecting segments, or significantly compromise other program elements that depend on risk analysis input (such as identification of preventive and mitigative measures). | Risk analysis approach inadequacies in one or more areas result in significantly inaccurate results for a meaningful quantity of HCA-affecting segments, or moderately compromise other program elements that depend on risk analysis input (such as identification of preventive and mitigative measures). | Risk analysis approach inadequacies in one or more areas result in significantly inaccurate risk analysis results for very few/isolated or indeterminate covered segments, or potentially compromise other program elements that depend on risk analysis input (such as identification of preventive and mitigative measures). | N/A | Unlikely that inadequacies in the risk analysis process compromise other program elements or result in significantly inaccurate risk analysis results for HCA-affecting segments. |
| AF 5.3 Failure to adequately require or consider all relevant and available input data for the risk analysis, including failure to incorporate field knowledge or failure to perform data review for quality and accuracy | Relevant and available input data not considered for one or more significant areas or risk factors resulting in significantly inaccurate results for a high percentage of HCA-affecting segments. | Relevant and available input data not considered for one or more significant areas or risk factors resulting in significantly inaccurate results for a meaningful quantity of HCA-affecting segments. | Relevant and available input data not considered for one or more significant areas or risk factors resulting in significantly inaccurate risk analysis results for very few/isolated or indeterminate HCA-affecting segments. | N/A | Unlikely that input data deficiencies result in significantly inaccurate risk analysis results. |

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| AF 5.4 Failure to use, validate or justify an appropriate risk analysis algorithm to produce results (e.g., justification for weighting factors and key model assumptions, risk model segmentation) | Inadequate methods used to combine input information in one or more areas of the risk analysis resulting in significantly inaccurate results for a high percentage of HCA-affecting segments. | Inadequate methods used to combine input information in one or more areas of the risk analysis resulting in significantly inaccurate results for a meaningful quantity of HCA-affecting segments. | Inadequate methods used to combine input information in one or more areas of the risk analysis resulting in significantly inaccurate risk analysis results for very few/isolated or indeterminate HCA-affecting segments. | N/A | Unlikely that inadequacies in the methods to combine risk analysis input information result in significantly inaccurate risk analysis results. |
| AF 5.5 Failure to include all HCA-affecting segments in the risk analysis | NA | Failure to include multiple HCA-affecting segments in the risk analysis. | Failure to include a meaningful quantity of HCA-affecting segments in the risk analysis. | Failure to include very few/isolated or indeterminate HCA-affecting segment(s) in the risk analysis. | Unable to verify all HCA-affecting segments were included in the risk analysis. |
| AF 5.6 Failure to adequately identify or analyze significant facility risk factors | NA | Inadequate consideration of significant facility risk factors resulting in significantly inaccurate results for a high percentage of HCA-affecting facilities. | Inadequate consideration of significant facility risk factors resulting in significantly inaccurate results for a meaningful quantity of HCA-affecting facilities. | Inadequate consideration of significant facility risk factors resulting in significantly inaccurate results for very few/isolated or indeterminate HCA-affecting facilities. | Facility risk not properly analyzed, but results unlikely to be significantly inaccurate. |
| AF 5.7 Failure to adequately maintain the risk analysis up to date. | NA | Risk analysis not adequately up to date in one or more areas resulting in significantly inaccurate results for a high percentage of HCA-affecting segments. | Risk analysis not adequately up to date in one or more areas resulting in significantly inaccurate results for a meaningful quantity of HCA-affecting segments. | Risk analysis not adequately up to date in one or more areas resulting in significantly inaccurate results for very few/isolated or indeterminate HCA-affecting segments. | Unlikely that inadequacies in maintaining risk analysis process up to date result in significantly inaccurate results. |
| AF 5.8 Failure to adequately document risk analysis process, implementation, and/or results | NA | NA | Risk analysis documentation inadequate and very little useful information could be obtained for use in future updates and application of the risk analysis results. | Risk analysis documentation inadequate and only some useful information could be obtained for use in future updates and applications of risk analysis results. | Documentation of program requirements, implementation, and/or results inadequate but unlikely that application of risk analysis results adversely affected. |

| 6. Preventive and Mitigative Actions | | | | | |
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| AF 6.1 Failure to establish and/or implement an adequate preventive and mitigative process. | Likely that inadequate program or poor implementation results in significant P&M measures being overlooked for a widespread occurrence of HCA-affecting segments. | Likely that inadequate program or poor implementation results in significant P&M measures being overlooked for a meaningful quantity of HCA-affecting segments. | Likely that inadequate program or poor implementation results in significant P&M measures being overlooked for very few/isolated or indeterminate HCA-affecting segments. | NA | Inadequate program but unlikely that significant preventive or mitigative actions were or will be overlooked. |
| AF 6.2 Failure to adequately consider risk analysis in making preventive and mitigative decisions | Likely that inadequate program or poor implementation results in significant P&M measures being overlooked for a widespread occurrence of HCA-affecting segments. | Likely that inadequate program or poor implementation results in significant P&M measures being overlooked for a meaningful quantity of HCA-affecting segments. | Likely that inadequate program or poor implementation results in significant P&M measures being overlooked for very few/isolated or indeterminate HCA-affecting segments being overlooked. | NA | Inadequate program but unlikely that significant preventive or mitigative actions were or will be overlooked. |
| AF 6.3 Failure to consider or implement additional preventive and mitigative measures to protect HCAs from non-pipeline facilities | NA | Likely that inadequate program or poor implementation results in significant P&M measures being overlooked for a widespread occurrence of HCA-affecting segments. | Likely that inadequate program or poor implementation results in significant P&M measures being overlooked for a meaningful quantity of HCA-affecting segments. | Likely that inadequate program or poor implementation results in significant P&M measures being overlooked for very few/isolated or indeterminate HCA-affecting segments. | Inadequate program but unlikely that significant preventive or mitigative actions were or will be overlooked. |
| AF 6.4 Failure to justify the exclusion of significant preventive and mitigative measures | Likely that inadequate program or poor implementation results in significant P&M measures being overlooked for a widespread occurrence of HCA-affecting segments. | Likely that inadequate program or poor implementation results in significant P&M measures being overlooked for a meaningful quantity of HCA-affecting segments. | Likely that inadequate program or poor implementation results in significant P&M measures being overlooked for very few/isolated or indeterminate HCA-affecting segments. | NA | Unlikely that any significant preventive or mitigative action inappropriately excluded, but program not adequate to ensure appropriate decisions will be made in the future. |

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| AF 6.5 Failure to implement significant preventive and mitigative measures in a timely manner | NA | Inadequate program or poor implementation results in significant P&M measures not being implemented in a timely manner for many HCA-affecting segments | Inadequate program or poor implementation resulted in significant P&M measures not being implemented in a timely manner for a meaningful quantity of HCA-affecting segments. | Inadequate program or poor implementation results in significant P&M measures not being implemented in a timely manner for very few/isolated or indeterminate HCA-affecting segments. | Unlikely that implementation of any specific preventive or mitigative action was not timely, but program not adequate to ensure adequate future timely implementation. |
| AF 6.6 Failure to adequately require, complete, or document the required leak detection evaluations. | NA | Operator made no attempt to complete the leak detection evaluation. | Likely that inadequate leak detection evaluation (e.g., not addressing required risk factors) results in many HCAs receiving significantly deficient levels of protection. | Likely that inadequate leak detection evaluation (e.g., not addressing required risk factors) results in a meaningful quantity of HCAs receiving significantly deficient levels of protection. | Operator evaluations inadequate but unlikely that any HCAs receive significantly deficient levels of protection. |
| AF 6.7 Failure to adequately require, complete, or document the required EFRD evaluations. | NA | Operator made no attempt to complete the EFRD evaluation. | Likely that inadequate EFRD evaluation (e.g., not addressing required risk factors) results in many HCAs receiving significantly deficient levels of protection. | Likely that inadequate EFRD evaluation (e.g., not addressing required risk factors) results in a meaningful quantity of HCAs receiving significantly deficient levels of protection. | Operator evaluations inadequate but unlikely that any HCAs receive significantly deficient levels of protection. |
| AF 6.8 Failure to complete adequate documentation of preventive and mitigative program implementation and/or preventive and mitigative decisions | NA | NA | Documentation inadequate and very little useful information could be obtained for use in future assessment scheduling, preventive and mitigative analysis, or periodic evaluations. | Documentation inadequate and only some useful information could be obtained for use in future assessment scheduling, preventive and mitigative analysis, or periodic evaluations. | Unlikely that future assessment schedules or preventive and mitigative analyses adversely affected, but documentation of program implementation, and/or preventive and mitigative decisions inadequate. |

| 7. Continual Evaluation and Assessment | | | | | |
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| AF 7.1 Failure to require, perform, or document periodic evaluations of pipeline integrity (including non-routine evaluations when conditions warrant). | NA | <p>Failure to conduct periodic evaluations; OR</p> <p>Failure to have a process requiring periodic evaluations; OR</p> <p>Failure to adequately consider many or all of the rule required elements for periodic evaluation; OR</p> <p>Failure to adequately apply results for many covered segments.</p> | <p>Failure to adequately consider several of the rule-required elements for periodic evaluations; OR</p> <p>Failure to adequately apply results for a meaningful quantity of HCA-affecting segments.</p> | <p>Failure to adequately consider at least one of the rule-required elements for periodic evaluations; OR</p> <p>Failure to adequately apply results for very few/isolated HCA-affecting segments.</p> | Unable to determine if periodic evaluations were adequate due to poor documentation. |
| AF 7.2 Failure to complete reassessments within rule-required timeframes (including the “not to exceed” allowance, if applicable); or reassessments performed more than six months beyond the scheduled date. | NA | Widespread occurrence of reassessments not being completed within rule-required timeframes. | Meaningful quantity of reassessments not being completed within rule-required timeframes. | Very few/isolated occurrence(s) of reassessments not being completed within rule-required timeframes. | Unlikely that any reassessments not completed within rule required timeframes, but minor discrepancies with the scheduling and completion of reassessments such as not completing the assessments within six months of the scheduled date. |
| AF 7.3 Failure to require, establish or justify appropriate reassessment intervals | NA | Reassessment intervals not justified for many HCA-affecting segments and intervals appear to be beyond acceptable timeframes by more than 6 months. | Reassessment intervals not justified for a meaningful quantity of HCA-affecting segments and intervals appear to be beyond acceptable timeframes by more than 6 months. | Reassessment intervals not justified for very few/isolated or indeterminate HCA-affecting segments and intervals appear to be beyond acceptable timeframes by more than 6 months. | Unlikely that any segments had excessive intervals, but: <ul style="list-style-type: none"> • Reassessment intervals not justified; AND/OR • Program inadequate and may cause excessive intervals in the future. |

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| AF 7.4 Failure to specify adequate requirements for assessment method selection; and/or, failure to specify the correct assessment tool for reassessments; and/or, failure to justify the method selected | NA | Likely that reassessment methods not appropriate for segment-specific threats for many HCA-affecting segments. | Likely that reassessment methods not appropriate for segment-specific threats for a meaningful quantity of HCA-affecting segments. | Likely that reassessment methods not appropriate for segment-specific threats for very few/isolated or indeterminate HCA-affecting segments. | Process used to specify reassessment tools inadequate, but unlikely that any threats in HCA-affecting segments did/will not receive an appropriate reassessment. |
| AF 7.5 Failure to require or complete the submittal of an interval variance when the re-assessment interval exceeds the rule-allowed maximum | NA | NA | NA | Examples identified where re-assessment interval was scheduled to, or did exceed the rule-allowed maximum and notification to PHMSA was not made. | No examples identified where re-assessment interval was scheduled to, or did exceed the rule-allowed maximum but there was no program requirement to request a variance or notify PHMSA. |
| AF 7.6 Failure to require or complete adequate documentation of the periodic evaluation results | NA | NA | Documentation inadequate and very little useful information could be obtained for use in future assessment scheduling, preventive and mitigative analysis, or periodic evaluations. | Documentation inadequate and only some useful information could be obtained for use in future assessment scheduling, preventive and mitigative analysis, or periodic evaluations. | Documentation inadequate and needs to be improved to fully meet the integrity management program requirements. |

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| <p>AF 7.7 Failure to develop and/or implement adequate ECDA plan</p> | <p>Likely widespread occurrence of immediate repair conditions overlooked in HCA-affecting segments due to inadequate plan development or implementation.</p> | <p>Likely a meaningful quantity of immediate repair conditions that were overlooked in HCA-affecting segments due to inadequate plan development or implementation; AND/OR Likely a widespread occurrence of 60 day and/or 180 day repair conditions overlooked in HCA-affecting segments due to inadequate plan development or implementation.</p> | <p>Likely very few/isolated or indeterminate immediate repair conditions overlooked in HCA-affecting segments due to inadequate plan development or implementation; AND/OR Likely a meaningful quantity of 60 day and/or 180 day repair conditions overlooked in HCA-affecting segments due to inadequate plan development or implementation.</p> | <p>Likely very few/isolated or indeterminate 60 day and/or 180 day repair conditions overlooked in HCA-affecting segments due to inadequate plan development or implementation.</p> | <p>Quality of plan or its implementation inadequate but unlikely that immediate, 60 day, or 180 day repair conditions undetected.</p> |
| <p>AF 7.8 Failure to adequately define and/or implement pre-assessment activities for ECDA</p> | <p>Likely widespread occurrence of immediate repair conditions overlooked in HCA-affecting segments due to inadequate pre-assessment program development or implementation.</p> | <p>Likely a meaningful quantity of immediate repair conditions overlooked in HCA-affecting segments due to inadequate pre-assessment program development or implementation; AND/OR Likely widespread occurrence of 60 day and/or 180 day repair conditions overlooked in HCA-affecting segments due to inadequate pre-assessment program development or implementation.</p> | <p>Likely very few/isolated or indeterminate immediate repair conditions overlooked in HCA-affecting segments due to inadequate pre-assessment program development or implementation; AND/OR Likely a meaningful quantity of 60 day and/or 180 day repair conditions overlooked in HCA-affecting segments due to inadequate pre-assessment program development or implementation.</p> | <p>Likely very few/isolated or indeterminate 60 day and/or 180 day repair conditions overlooked in HCA-affecting segments due to inadequate pre-assessment program development or implementation.</p> | <p>Quality of pre-assessment program or its implementation inadequate but unlikely that immediate, 60 day, or 180 day repair conditions undetected.</p> |

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| <p>AF 7.9 Failure to adequately define and/or implement indirect examination for ECDA</p> | <p>Likely widespread occurrence of immediate repair conditions overlooked in HCA-affecting segments due to inadequate indirect examination program development or implementation.</p> | <p>Likely a meaningful quantity of immediate repair conditions overlooked in HCA-affecting segments due to inadequate indirect examination program development or implementation; AND/OR Likely widespread occurrence of 60 day and/or 180 day repair conditions overlooked in HCA-affecting segments due to inadequate indirect examination program development or implementation.</p> | <p>Likely very few/isolated or indeterminate immediate repair conditions overlooked in HCA-affecting segments due to inadequate indirect examination program development or implementation; AND/OR Likely a meaningful quantity of 60 day and/or 180 day repair conditions overlooked in HCA-affecting segments due to inadequate indirect examination program development or implementation.</p> | <p>Likely very few/isolated or indeterminate 60 day and/or 180 day repair conditions overlooked in HCA-affecting segments due to inadequate indirect examination program development or implementation.</p> | <p>Quality of indirect examination program or its implementation was inadequate but unlikely that immediate, 60 day, or 180 day repair conditions undetected.</p> |
| <p>AF 7.10 Failure to adequately define and/or implement direct examination for ECDA</p> | <p>Likely widespread occurrence of immediate repair conditions overlooked in HCA-affecting segments due to inadequate direct examination program development or implementation.</p> | <p>Likely a meaningful quantity of immediate repair conditions overlooked in HCA-affecting segments due to inadequate direct examination program development or implementation; AND/OR Likely widespread 60 day and/or 180 day repair conditions overlooked in HCA-affecting segments due to inadequate direct examination program development or implementation.</p> | <p>Likely very few/isolated or indeterminate immediate repair conditions overlooked in HCA-affecting segments due to inadequate direct examination program development or implementation; AND/OR Likely a meaningful quantity of 60 day and/or 180 day repair conditions overlooked in HCA-affecting segments due to inadequate program development or implementation.</p> | <p>Likely very few/isolated or indeterminate 60 day and/or 180 day repair conditions overlooked in HCA-affecting segments due to inadequate direct examination program development or implementation.</p> | <p>Quality of direct examination program or implementation inadequate but unlikely that immediate, 60 day, or 180 day repair conditions undetected.</p> |

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| AF 7.11 Failure to adequately define and/or implement requirements to determine reassessment intervals for ECDA | NA | Reassessment intervals not justified for many HCA-affecting segments and intervals appear to be beyond acceptable timeframes by more than 6 months; or intervals exceeded rule required maximums. | Reassessment intervals not justified for a meaningful quantity of HCA-affecting segments and intervals appeared to be beyond acceptable timeframes by more than 6 months; or intervals exceeded rule required maximums. | Reassessment intervals not justified for very few/isolated or indeterminate HCA-affecting segments and intervals appeared to be beyond acceptable timeframes by more than 6 months; or intervals exceed rule-required maximums. | Unlikely that any segments had excessive intervals, but: Reassessment intervals not justified; AND/OR Program was inadequate and may cause excessive intervals in the future. |
| AF 7.12 Failure to adequately define and/or implement post assessment activities to develop performance measures and validation data for ECDA | NA | NA | No attempt to develop or implement performance measures or validation data. | Performance Measures and/or validation data inadequate and likely contribute to low quality ECDA results | Performance Measures and/or validation data inadequate but unlikely that this problem contributes to low quality ECDA results. |
| AF 7.13 Failure to define and/or implement adequate post assessment requirements for ECDA (for issues not addressed in AF 7.11 and AF 7.12) | Likely widespread occurrence of immediate repair conditions overlooked in HCA-affecting segments due to inadequate post assessment program development or implementation. | Likely a meaningful quantity of immediate repair conditions overlooked in HCA-affecting segments due to inadequate post assessment program development or implementation; AND/OR Likely widespread 60 day and/or 180 day repair conditions overlooked in HCA-affecting segments due to inadequate post assessment program development or implementation. | Likely very few/isolated or indeterminate immediate repair conditions overlooked in HCA-affecting segments due to inadequate post assessment program development or implementation; AND/OR Likely a meaningful quantity of 60 day and/or 180 day repair conditions overlooked in HCA-affecting segments due to inadequate post assessment program development or implementation. | Likely very few/isolated or indeterminate 60 day and/or 180 day repair conditions overlooked in HCA-affecting segments due to inadequate post assessment program development or implementation. | Quality of the post assessment program or its implementation inadequate but unlikely that immediate, 60 day, or 180 day repair conditions undetected. |

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| <p>AF 7.14 Failure to document or apply more restrictive criteria on an initial ECDA assessment</p> | <p>Likely widespread occurrence of immediate repair conditions overlooked in HCA-affecting segments due to failure to use more restrictive criteria</p> | <p>Likely a meaningful quantity of immediate repair conditions overlooked in HCA-affecting segments due to failure to use more restrictive criteria; AND/OR Likely widespread occurrence of 60 day or 180 day repair conditions overlooked in HCA-affecting segments due to failure to use more restrictive criteria.</p> | <p>Likely very few/isolated or indeterminate immediate repair conditions overlooked in HCA-affecting segments due to failure to use more restrictive criteria; AND/OR Likely a meaningful quantity of 60 day or 180 day repair conditions overlooked in HCA-affecting segments due to failure to use more restrictive criteria.</p> | <p>Likely very few/isolated or indeterminate 60 day or 180 day repair conditions overlooked in HCA-affecting segments due to failure to use more restrictive criteria.</p> | <p>Failure to use more restrictive criteria but unlikely that immediate, 60 day, or 180 day repair conditions undetected.</p> |
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| 8. Performance Evaluation | | | | | |
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| AF 8.1 Failure to develop or document an adequate performance evaluation program including failure to include goals, internal audits or reviews, and/or adequate metrics | NA | NA | No attempt to implement a performance evaluation program. | Program was inadequate and likely contributes to low quality integrity management processes | Inadequate performance evaluation program (e.g., inadequate metrics, not effective at identifying needed actions) but unlikely this problem contributes to low quality integrity management programs. |
| AF 8.2 Failure to implement actions identified by the performance evaluation program | NA | NA | Likely that an inadequate program or poor implementation results in widespread significant corrective actions not implemented to protect HCAs; or significant IM program/process improvements not implemented that would impact many HCA-affecting segments. | Likely that an inadequate program or poor implementation resulted in a moderate occurrence of significant corrective actions not implemented to protect HCAs; or program/process improvements not implemented that would impact several HCA-affecting segments. | Unlikely that inadequate program or poor implementation results in significant corrective actions not implemented, or significant program/process improvements not implemented. However program is inadequate to effectively implement corrective actions and improvements in the future. |
| AF 8.3 Failure to require or implement periodic updates of the performance evaluation program or performance metrics as systems and conditions change, such as root cause analysis information on failures and events. | NA | NA | Likely that inadequate updating of the performance evaluation program results in low quality in many or several IM processes, or a widespread occurrence of significant corrective actions being overlooked for HCA-affecting segments. | Likely that inadequate updating of the performance evaluation program results in low quality in one or a few IM processes, or a meaningful quantity of significant corrective actions being overlooked for HCA-affecting segments. | Unlikely that a significant IM process problem or corrective action deficiency is linked to failure to update the performance metrics or program evaluation process. However program is inadequate, and could lead to problems in the future. |

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| <p>AF 8.4 Failure to adequately develop, document, and/or communicate an adequate IM program (this finding addresses a generic IM program documentation, communication, or process formality problem)</p> | <p>No attempt to develop, document, or communicate an IM program.</p> | <p>Likely that inadequate documentation or communication of the IM program results in widespread occurrence of low quality or inconsistent implementation of required IM elements.</p> | <p>Likely that inadequate documentation or communication of the IM program results in a meaningful occurrence of low quality or inconsistent implementation of required IM elements.</p> | <p>Likely that inadequate documentation or communication of the IM program results in very few/isolated occurrence(s) of low quality or inconsistent implementation of required IM elements.</p> | <p>Unlikely that a significant IM program implementation problem is linked to inadequate documentation or communication of the IM program. However overall program documentation is inadequate and could lead to problems in the future.</p> |
| <p>AF 8.5 Failure to adequately perform program effectiveness evaluations, identify adequate actions to improve performance and/or identify deficiencies indicative of an IM programmatic breakdown</p> | <p>NA</p> | <p>NA</p> | <p>Likely that poor implementation results in widespread significant corrective actions not implemented to protect HCAs; or significant IM program/process improvements not implemented that would impact many HCA-affecting segments.</p> | <p>Likely that poor implementation results in a meaningful quantity of significant corrective actions not implemented to protect HCAs; or program/process improvements not implemented that would impact several HCA-affecting segments.</p> | <p>Unlikely that poor implementation results in significant corrective actions not implemented, or significant program/process improvements not implemented. However program is inadequate to effectively implement corrective actions and improvements in the future.</p> |

Specific Instructions for Entering Enforcement Actions for Inspection Issues into IMDB

1. Prior to entering enforcement results in IMDB, the protocol results must first be imported into the database. Complete instructions for performing this step can be found on-line in the Library of IMDB Tutorials.

Library

- [IMDB Tutorials](#)
- [FAQ](#)
- [Protocols](#)
- [IIM Web Site](#)

Reports and Queries

- [IM Program Status](#)
- [Round 2 Progress](#)
- [Summary Statistics](#)
- [Correlation Report](#)
- [Inspection Query Tool](#)

confidential. In addition, supplemental inspection also for internal use only by federal or state published in the federal register, such as advisory material outside of the state or federal jurisdiction information from other government organizations (Congressional Staff) should be referred to PH Development, for IM).

HELP WITH USE OF IMDB

11/01/2006: Training Module: How to Import Protocol Results
[ImportProtocolResults.htm](#) (918 bytes)
[VIEW](#) [DOWNLOAD/SAVE...](#) | File #20601

2. After importing the protocol results, the inspection record shows a link to those results.

| | |
|--------------------------|--|
| <i>Visit Type</i> | Inspection |
| <i>Lead Office</i> | Southwest Region |
| <i>Inspection Status</i> | Completed (Results imported.) |
| <i>Inspection Dates</i> | Sep 25-Nov 3, 2006 |

3. Click on the “Results” link to view the Inspection Results page with a Summary of Potential Issues for this inspection.

Inspection Results

[Inspection Page](#) |
 [IMDB Home Page](#) |
 [Southwest Region Page](#) |
 [IM Program Status](#) |
 [Log Out!](#) |
 [Edit Enforcement Inform](#)

Summary of Potential Issues

| No. | Protocol Item | Issue Summary |
|-----|---------------|--|
| 1. | 1.03 | The Inspection Team had concerns that the HCA "could affect" analysis had not adequately considered pipeline leak condition (seeper) vs. the analyzed rapid full volume release assumptions. A basis |

4. Scroll to the bottom of this page to view the Potential Issue Categorization section of the page.

| | | |
|-----|------|--|
| 20. | 8.06 | 2007. IMP related information is frequently located in 2 locations – the IMPM and the Appendices. Efforts are needed to ensure the information is internally consistent; and when processes are further detailed in an Appendix, it should be adequately referenced in the main body of the IMPM. An example is in IMPM Section 7.4.5.2.2 the pressure reduction is to be calculated at the anomaly location, but Appendix E lacked this detail. It is noted that this example has been rectified by updating the information included in Appendix E section E.1.2. |
|-----|------|--|

Potential Issue Categorization

| No. | ID | Category | Area Finding | RC | Enforcement Type | Enforcement Comments |
|-----|---------|--|--------------|----|------------------|----------------------|
| 1. | 1.03.05 | Release volumes for a range of possible leak sizes that could result in a larger release than assumed, including slow leaks below SCADA detection thresholds, leaking for long time periods were not adequately considered | AF 1.1 | E | | |
| 2. | 1.07.01 | All segments that could affect HCAs in the buffer zone intersection analysis methodology were not adequately identified | AF 1.1 | E | | |
| 3. | 3.01.01 | A process was not adequately developed to qualify personnel reviewing assessment results | AF 3.1 | E | | |
| 4. | 3.02.02 | Vendor specifications did not require timely discovery and reporting of rule required repair conditions to the operator (particularly timely reporting of immediate repair conditions) | AF 3.2 | E | | |

5. At the bottom of this page, click on the "Edit Enforcement Information..." link:

| | | | |
|---|--------|---|--|
| gram | AF 8.3 | E | |
| required tasks including documentation, nts | AF 8.4 | E | |

[tus](#) |
 [Log Out!](#) |
 [Edit Enforcement Information...](#)

6. The Enforcement Type Selection Form is now open for capturing the Enforcement Type and any Enforcement Comments for each inspection issue.

Enforcement Type Selection Form

| Issue Categories: | | | | |
|-------------------|--|----------------|-------------------|-----------------------|
| Issue Category: | Issue Category Description: | Risk Category: | Enforcement Type: | Enforcement Comments: |
| 1.03.05 | Release volumes for a range of possible leak sizes that could result in a larger release than assumed, including slow leaks below SCADA detection thresholds, leaking for long time periods were not adequately considered | E | -- select -- ▾ | |

7. Choose the Enforcement Type by clicking on the dropdown menu of choices and highlighting one.

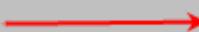
| Issue Categories: | | | | |
|-------------------|--|----------------|---|--|
| Issue Category: | Issue Category Description: | Risk Category: | Enforcement Type: | |
| 1.03.05 | Release volumes for a range of possible leak sizes that could result in a larger release than assumed, including slow leaks below SCADA detection thresholds, leaking for long time periods were not adequately considered | E | <div style="border: 1px solid black; padding: 2px;"> NOA ▾ -- select -- LOC WL NOA NOPV/CO NOPV/CP NOPV/CO/CP None </div> | |
| 1.07.01 | All segments that could affect HCAs in the buffer zone intersection analysis methodology were not adequately identified | E | | |

8. Enforcement Comments is a text field that can be used to provide clarification and explanation. If an “Enforcement Type” of “None” is selected, a brief explanation why no action was taken should be provided in the “Enforcement Comments” field.

| Issue Category Description: | Risk Category: | Enforcement Type: | Enforcement Comments: |
|--|----------------|-------------------|------------------------|
| Release volumes for a range of possible leak sizes that could result in a larger release than assumed, including slow leaks below SCADA detection thresholds, leaking for long time periods were not adequately considered | E | None | Correction by Operator |

9. When finished, click on the Submit button at the bottom of the form to save the enforcement information.

| | | | |
|---------|--|---|-----|
| 3.01.01 | A process was not adequately developed to qualify personnel reviewing assessment results | E | NOA |
|---------|--|---|-----|



10. To view the saved enforcement information, scroll again to the bottom of the Inspection Results Page to the Potential Issue Categorization section of the page.

| pressure reduction is to be calculated at the anomaly location, but Appendix E lacked this detail. It is noted that this example has been rectified by updating the information included in Appendix E section E.1.2. | | | | | | |
|---|---------|--|--------------|----|------------------|------------------------|
| Potential Issue Categorization | | | | | | |
| No. | ID | Category | Area Finding | RC | Enforcement Type | Enforcement Comments |
| 1. | 1.03.05 | Release volumes for a range of possible leak sizes that could result in a larger release than assumed, including slow leaks below SCADA detection thresholds, leaking for long time periods were not adequately considered | AF 1.1 | E | NOA | |
| 2. | 1.07.01 | All segments that could affect HCAs in the buffer zone intersection analysis methodology were not adequately identified | AF 1.1 | E | None | Corrected by Operator. |

11. If it later becomes necessary to change the enforcement action associated with any inspection issue (e.g., to be consistent with the issued Notice Letter), simply repeat the above steps and make the necessary changes.