Valero

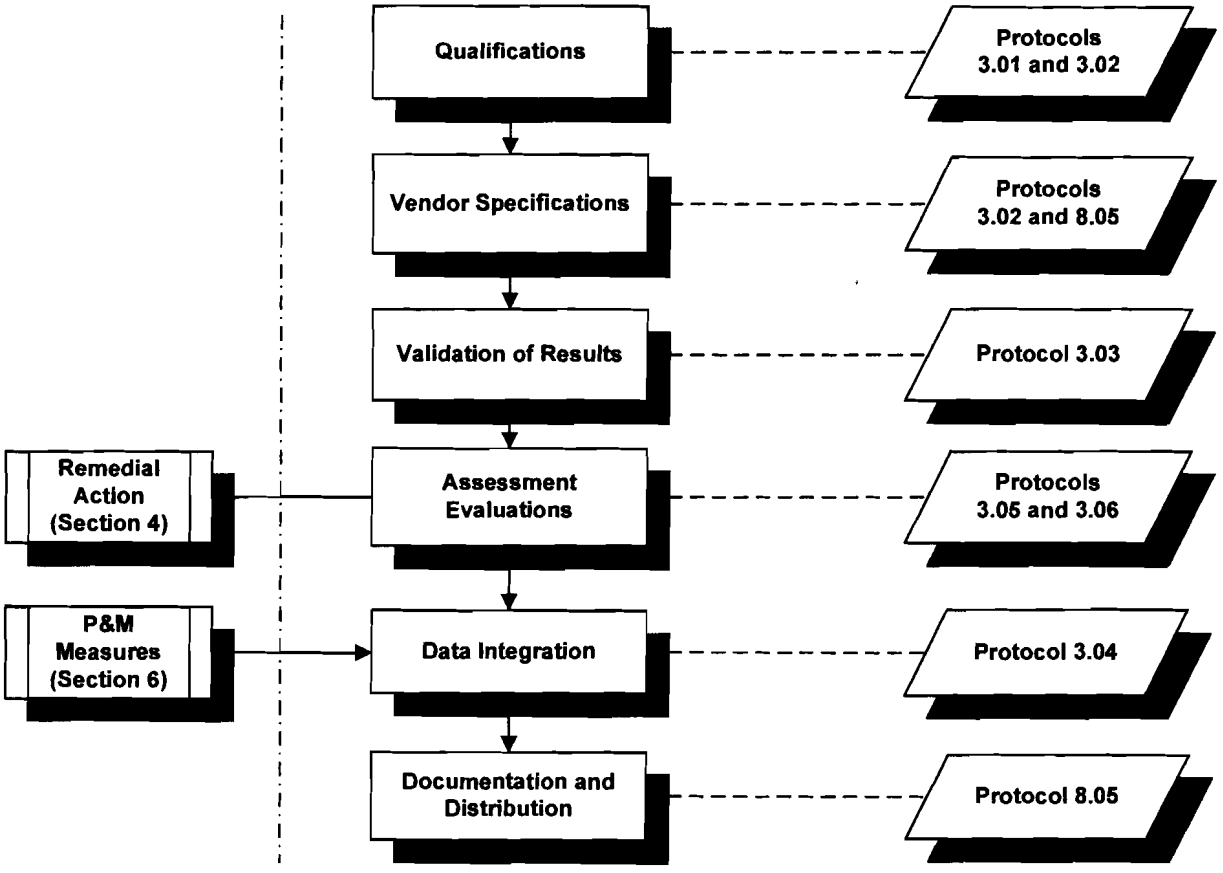
CPF 4-2009-5003M

Exhibit 3

3. Integrity Assessment

This section describes the process by which the Company collects, integrates, categorizes, documents, and distributes the inspection data as illustrated in Figure 3–1~~Figure 3–1~~: Integrity Assessment Process Flowchart.

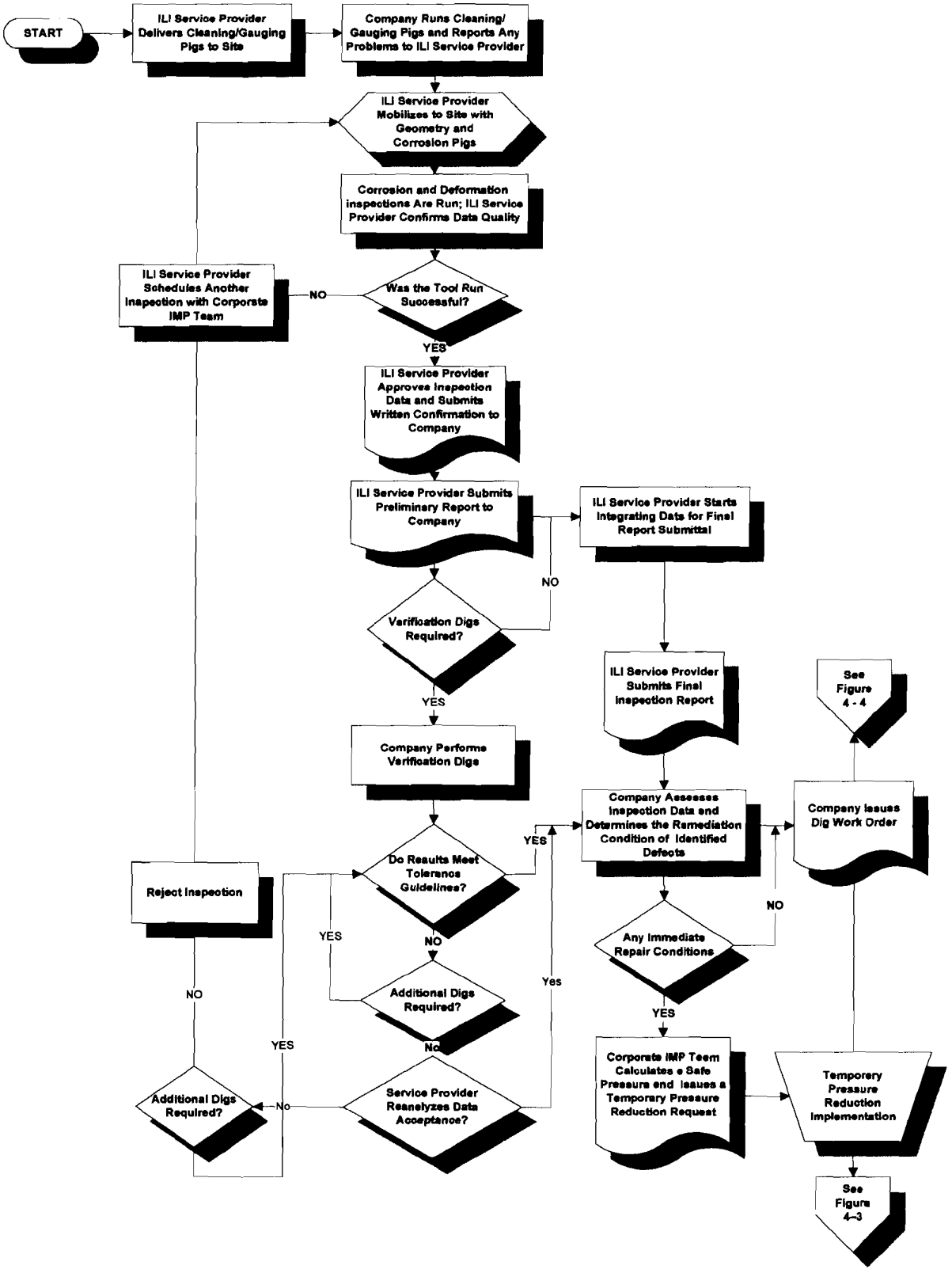
Figure 3–1: Integrity Assessment Process Flowchart



The use of ILI tools is the preferred method by which the Company assesses the integrity of pipeline systems. The Company contracts with a qualified ILI Service Provider (ILI Vendor) using a contract similar to the service agreement in Appendix D: Tool Vendor Requirements for In-Line Inspection Assessments (for Geometry/MFL/INS Tool Runs).

Appendix A: IMP 301: In-Line Inspections provides a formalized process for performing and assessing in-line inspections. The flowchart in Figure 3–2~~Figure 3–2~~: In-Line Inspection and Data Evaluation summarizes this procedure and the Company's process of data evaluation.

Figure 3–2: In-Line Inspection and Data Evaluation



3.1. Qualifications

3.1.1. Company Employees

The Company ensures that personnel assigned to assessment tasks meet employee qualification requirements. The Company plans to continually provide additional training, educational tools, and skills to each of these employees to achieve and maintain current integrity standards. To document these activities, the Company maintains employee training records.

3.1.2. ILI Service Providers

The Company requires all ILI Service Providers to have personnel qualified in the interpretation of ILI inspection results to comply with the requirements of ANSI/ASNT ILI-PQ-2005. In addition, the Company shall have a qualified person per its Operator Qualification Program to perform any covered task.

Prior to the execution of any inspections, the Company may require ILI Service Providers to submit their qualifications for project-related personnel.

3.2. ILI Service Provider Vendor Agreement

The ILI Service Provider Vendor Service Agreement specifies the services, tools, and communication expectations required of the ILI Service Provider. Appendix D: Tool Vendor Requirements for In-Line Inspection Assessments (for Geometry/MFL/INS Tool Runs) provides detailed specifications and tolerances for inspection tools used in the assessment process. The Corporate IMP Team, with assistance from third parties as appropriate, will utilize NACE International Publication 35100 and API Standard 1160 in preparing performance specifications and selecting appropriate in-line inspection tools whenever integrity assessment requires the use of in-line inspection tools.

3.2.1. Specification of ILI Service Provider Services

The following list comprises some of the provisions in the Inspection and Performance Specifications. For the complete list, see Appendix D: Tool Vendor Requirements for In-Line Inspection Assessments (for Geometry/MFL/INS Tool Runs).

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- If the Company confirms longitudinally oriented metal loss or SCC colonies within the pipeline, it may also decide to use an Axial Flaw Detection (AFD) tool to locate and define these areas.
- ILI Service Provider provides a preliminary report 30 days and a final report 90 days after completion of the inspection.

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3.3. Assessment Evaluations

3.3.1. In-Line Inspection Assessments

Several anomaly interaction rules and burst pressure calculations are available when assessing in-line inspection results. The following paragraphs explain how the Company performs anomaly interaction and calculates a safe operating pressure.

3.3.1.1. Anomaly Interaction Criteria

The Anomaly Interaction Rule states that "Individual metal loss indications will interact and be considered as one anomaly, identified as a Cluster, when axial spacing between the metal loss anomaly edges is less than 1 inch and the circumferential spacing is less than 6t."

The interaction criteria described above continues until the assessment inspection reaches an area of sound pipe. The sum length of all grouped metal-loss anomalies becomes the total length of the new interacted feature. The Company uses the metal-loss group length and the maximum depth to calculate the predicted burst pressure for the metal-loss area. The Anomaly Interaction Rule is sufficiently conservative to properly capture the influence of adjacent metal-loss areas.

3.3.1.2. Corrosion Assessment Criteria

The Company chooses to use ASME B31G to make internal pressure calculations on metal-loss anomalies as follows:

- In-line assessment results
- Field measurements for all metal loss anomalies that exceed 10% of the width, length, or depth predicted by the ILI results

The Company uses the following fundamental equations for determining remaining strength of corroded area in pipe:

$$A = 0.893\left(\frac{L_m}{\sqrt{Dt}}\right)$$

Where	L_m	=	measured longitudinal extent of the corroded area (in.)
	D	=	nominal outside diameter of pipe (in.)
	t	=	nominal wall thickness of pipe (in.)

For values of A < or = 4.0:	For Values of A > 4.0:
$P' = 1.1P\left[\frac{1-\frac{2}{3}\left(\frac{d}{t}\right)}{1-\frac{2}{3}\left(\frac{d}{t\sqrt{A^2+1}}\right)}\right]$	$P' = 1.1P\left[1-\frac{d}{t}\right]$

Where	P'	=	calculated safe pressure (psig)
	P	=	MOP or internal design pressure (psig)
	D	=	depth of corroded area (in.)

$$ERF = \frac{P}{P'}$$

Where	P	=	MOP (psig)
	P'	=	calculated safe pressure (psig)
	P_{burst}	=	calculated safe pressure/0.72

3.3.2. Pressure Test Assessments

The Company's preferred method of testing pipeline integrity is through the use of ILI tools. Because some of its pipeline segments are not equipped for in-line inspection, the Company assesses those segments by performing a pressure test.

The integrity assessment of pipelines using pressure testing requires a supplemental evaluation of cathodic protection data (see Appendix A: IMP 303: Corrosion Control Effectiveness Review). Every pressure test used as an assessment has the corrosion control effectiveness verified by the Company. The Company brings up any issues with the Corrosion Control Program at the Preventive and Mitigative Activities Meeting. Through this process, the Company works to prevent active corrosion and minimize the likelihood of failures occurring.

For any failures resulting from the pressure test, the Company determines the cause of failure. For Failure Analysis, see the *Operations, Maintenance, and Emergency Procedures*. Pressure tests can cause the occurrence of a phenomenon called pressure reversals. For years, many suspected that this condition caused test failures; however, direct evidence showing pressure reversals as the sole cause of failure has seldom been obtained. Defect growth appears to be the contributing cause of failure for situations involving pressure reversals and not the reversal itself. In *Benefits and Limitations of Hydrostatic Testing* (John Kiefner and Willard A Maxey), Kiefner states that the likelihood of a pressure test with a target test pressure of 1.25 times MOP to have a 20% pressure reversal is an extremely low probability event. Based on this information, the Company currently does not consider pressure reversals to be a threat to the integrity of the pipeline.

All pressure tests are in accordance with the Company's *Operations, Maintenance, and Emergency Procedures,* which meets or exceeds the requirements set forth in *§195 Subpart E.* The Company files all documentation generated from these procedures and the corrosion control validation process in the Pipeline Integrity Assessment Report.

3.3.3. Other Technology

The tools and methods listed in this section and in Appendix A: IMP 201: Integrity Assessment Selection are internal ILI tools and do not fall under the Other Technology requirement in *49 CFR Part 195.452 (c) (1) (C)*. Currently, the Company chooses not to use any Other Technology in integrity management assessments. If the Company decides to use Other Technology, it will notify PHMSA or the appropriate state regulatory agency 90 days before conducting the test and will develop specific and appropriate procedures for the pertinent technology prior to its implementation.

3.3.4. SCC Program Evaluation

Any time Company personnel uncover a pipeline, they are required to examine the exposed portion for evidence of external corrosion if the pipe is bare or examine to see if the coating is deteriorated. They should also examine the pipe to gather information for SCC analysis. They record information on the Pipeline Information Report/Defect Evaluation Form. The Company then integrates this data into the integrity assessment results per the Company's data evaluation and integration procedures. Refer to Sections 4.6 and 5.2.4.3 of this Plan for more information.

3.4. Validation of Results

The Company has implemented a formal process for validating the results of an ILI inspection. Appendix A: IMP 302: In-Line Inspection Data Evaluation outlines the Company's use of verification digs (see Section 3.4.4~~3.4.4~~) to compare the results provided in the inspection reports to actual field data. The ILI Service Provider may also use this information to calibrate the data used in evaluation only for data collected by on-site ILI Service Provider personnel. The ILI Service Provider evaluation team uses this calibration of data to aid in providing the Company with a more accurate final report. The Company uses the Probability of Exceedance (POE) Analysis (see Section 3.4.5~~3.4.5~~) to verify that no remaining anomalies left in operation should compromise the integrity of the pipeline.

3.4.1. Evaluating Assessment Results

The Company, with assistance from a third party as necessary, is responsible for evaluating results from each integrity assessment and integrating this information with previous assessment run results, cathodic protection reading results, encroachment information and other relevant information. Decisions about repair and/or remediation actions will consider this integrated information in accordance with the Company's Repair and Remediation Criteria (see Figures 4-2 and 4-3 in Section 4: Remedial Action). The Company will compare previous assessment with current assessment and repair/remediation.

1) The Vendor will submit the final report within 90 days of completion of the assessment. The Company reviews assessment records within 180 days of completing the assessment to ensure that discovery of all repair conditions is complete. See Section 3.4.2~~3.4.2~~.
2) Vendor personnel certifying assessment results must have a minimum ANSI/ASNT Level 3 certification.
3) Company personnel reviewing assessment results will have the following:
   a) Minimum of five years experience in operations, engineering, and/or maintenance work or be working under the supervision of, or in conjunction with, an individual qualified per this section.
   b) Working knowledge of *49 CFR Part 195* and detailed knowledge of *§195.450* and *§195.452*.
   c) Detailed knowledge of Company's Pipeline Integrity Management Plan.
   d) Detailed knowledge of Company's in-line inspection specification and ILI Service Provider contract.
   e) Ability to recognize common anomalies and features from Vendor's log.

f) Have an understanding of ANSI/ASME B31G and Section 451.7 of ASME/ANSI B31.4 calculations and their impact on pipeline operating pressures.

g) Ability to recognize anomalies discovered during field digs.

4) Results evaluation for in-line inspections shall include the following:

a) Location along the pipeline

b) Tool tolerances

c) Tool size

d) Orientation and type of each anomaly

e) Comparison to previous assessment results

f) Expected burst pressure

g) Repair/remediation action required and identification of trends showing degradation of the pipe's condition

5) Personnel evaluating pressure testing assessment results shall have the following qualifications and working experience.

a) Minimum of five years experience in operations, engineering, and/or maintenance work or be working under the supervision of, or in conjunction with, an individual qualified per this section.

b) Working knowledge of *49 CFR Part 195* and detailed knowledge of *§195 Subpart E*, *§195.450* and *§195.452*.

c) Detailed knowledge of Company's Pipeline Integrity Management Plan.

d) Detailed knowledge of Company's pressure testing procedure contained in Company's *Operations, Maintenance, and Emergency Procedures.*

e) Ability to inspect and analyze pressure and temperature logs during an ongoing test for satisfactory/unsatisfactory progress of the test.

f) Ability to determine test pressures based on maximum operating pressure requirements.

g) Ability to recognize a successful test carried out in accordance with *§195 Subpart E* and Company's pressure testing procedure.

6) In the event of a pipeline failure while under pressure test, the Company will send a sample of the failed pipe section for metallurgical evaluation as described in the Company's *Operations, Maintenance, and Emergency Procedures.*

The Corporate IMP Team will meet at least annually to review and discuss areas of interest where training and/or conferences may be offered and beneficial to the development of the Corporate IMP Team.

In the event of a change to the Corporate IMP Team (e.g., new team member(s), change in responsibilities, etc.), the Company will conduct a review to assure that all members have the requisite knowledge to perform their responsibilities.

IMP Training may include, but is not limited to the following:

- PHMSA Pipeline Safety regulation training
- Defect assessment and repair training (e.g., RSTRENG, etc.)
- Vendor software training (conducted by vendor)
- Integrity assessment training (e.g., PHMSA conferences and seminars, Clarion Technical Conferences, Technical Toolboxes courses, etc.)

3.4.2. Discovery of a Condition

The Company defines the discovery of a condition as the time at which it has sufficient information about the condition to determine that the condition presents a potential threat to the integrity of the pipeline and affects an HCA. To facilitate discovery, the Company requires ILI Vendors to comply with the following:

- The Company requires the ILI Service Provider to submit a preliminary inspection survey report of areas with metal loss ≥ 50%, deformation defects ≥ 2% depth with metal loss, and deformation defects ≥ 6% depth on top of the pipe within 30 days of inspection.
- The Company requires the ILI Service Provider to submit a final inspection survey report containing all anomalies within 90 days of inspection.
- The Company designated a maximum of 30 days from delivery of the final report to define the discovery of a condition.

  NOTE: The Company will review both preliminary and final Vendor reports within 48 hours after receipt to establish:

  - If potential "immediate repair" conditions exist
  - If a pressure reduction is necessary to further evaluate the discovery of the condition to determine the need for implementing immediate repair/remediation activities. See Section 4.3.1.
  - If the ILI Service Provider anticipates delays in the data processing, it notifies the Company with an anticipated completion date. The Company documents the terms and conditions of delays in reporting in the ILI Service Provider Vendor Service Agreement.

The provisions listed above give Company personnel time to obtain sufficient information about a condition within 180 days of an integrity assessment. The Company maintains contact with the ILI Service Provider throughout this process and tracks key deliverable dates in the In-Line Inspection Tracking Report. In the event that discovery cannot occur within 180 days from the date of the inspection, the Company will take appropriate and incremental preventive action(s) (e.g., implement a pressure reduction and/or increase pipeline patrols, etc.) and notify PHMSA.

3.4.3. Data Acceptance

The Company has an established process for approving an inspection run before it sends the results to the ILI Service Provider evaluation team. After the ILI Service Provider has approved the inspection results with its data acceptance specification, it reports key inspection variables to the Company for tool run acceptance. The ILI Service Provider captures this information on the Site Completion Checklist (as shown in Table 3–1~~Table 3–1~~: Preliminary Acceptance of Inspection Data below), which it then sends to the Corporate IMP Team or appropriate Business Unit. This checklist contains some of the criteria required for an acceptable tool run. The Company compares the information submitted by the ILI Service Provider to the data in Table 3–1~~Table 3–1~~: Preliminary Acceptance of Inspection Data below to determine the success of the tool run.

Either the Company or the ILI Service Provider can deem the tool run unacceptable at any stage of this process. Both the ILI Service Provider and the Company disclose reasons why the run is unacceptable on the Site Completion Checklist.

Table 3–1: Preliminary Acceptance of Inspection Data

Condition	Acceptable	Not Acceptable
Data Quality	Legible, low noise	Not reasonable
Recorded Data Length	Distance matches questionnaire	Distance of questionnaire > 250 ft with discussion
Continuous Section w/o Data	< 5 m (16.4 ft)	> 5 m (16.4 ft)

Condition	Acceptable	Not Acceptable
Total Line Length w/o Data	< 5 m (16.4 ft)	> 5 m (16.4 ft)
Primary ILI Tool Channel Loss	< 3	> 3
Secondary ILI Tool Channel Loss	< 5%	> 10%
Magnetization Level	> 10 and < 30 kA/m for more than 90% of the P/L	< 9 and > 31 kA/m for more than 25% of the P/L
Maximum Velocity	< 3.2 m/s or 7 mph for 90% of the P/L	> 3 m/s or < 1 mph for 25% of the P/L
Optimum Velocity	2 to 3.1m/s (4.5-7 mph)	Open for discussion
Minimum Velocity	≤ 0.5 m/s 1.1 mph for more than 90% of the P/L	> 0.3 m/s of 1 mph for more than 25% of the P/L
Weld Signal	Clearly visible	> 30% not detectible
Geometry Signal	≥ 2 % of Pipe diameter and orientation	≥ 2 % of Pipe diameter not detected, no orientation representation
Calculated Wall Thickness	Between 80% and 133% of nominal w.t. for all specified joint types	Open for discussion
Recorded Pit Depth	≤ 5% for 95% of length of p/l	Open for discussion
Rotation	Positive rotation preferred. Check after run	Open for discussion

3.4.4. Verification Digs

The Company may use verification digs to verify tool accuracy and to approve the inspection prior to receiving the final report. The validation matrix listed in For accuracy of ILI measurement of anomalies, see Appendix D: Tool Vendor Requirements, and for anomaly comparison, use Appendix E of API 1163: Inline Inspection Systems Qualification Standard, where applicable: Vendor Data Tolerance–Validation Matrix outlines acceptable tool tolerances as agreed to in the ILI Service Provider Vendor Service Agreement. The Company communicates and documents any inconsistencies with tool inspection data to the ILI Service Provider by completing a Pipeline Assessment Issue Report and submits a completed report to the ILI Service Provider for corrective action. If verification digs are necessary, the Company will use the following criteria to identify select features to investigate

- External metal loss feature ≥ 35%
- Dent on top of pipe ≥ 6%
- Dent with associated metal loss

The Company can also use other features identified either from the preliminary analysis or during excavation for validation purposes.

While verification digs are beneficial in determining the performance of an ILI tool, some ILI assessments may have few anomalies reported by the ILI Vendor and therefore require no verification digs. This process is acceptable under the following conditions:

- The ILI Vendor has a process to verify that the variables established during the data calibration pull-through are within a specified acceptable range.
- The ILI Vendor runs each tool through a series of pre-run and post-run checks.

For accuracy of ILI measurement of anomalies, see Appendix D: Tool Vendor Requirements, and for anomaly comparison, use Appendix E of API 1163: Inline Inspection Systems Qualification Standard, where applicable...

3.4.5. Probability of Exceedance Analysis

The Company performs a Probability of Exceedance Analysis (POE) analysis to validate the integrity of the pipeline within a year after it has made all repairs. This analysis is a valid approach for the following:

- Reducing the probability anomalies left in service that could compromise the integrity of the pipeline
- Remediating additional anomalies that could be injurious to the safe operation of a pipeline
- Determining pipeline system reassessment intervals

The POE analysis is a statistical method that utilizes tool tolerances, reported corrosion depths, and operating pressure criteria data to evaluate all unremediated anomalies from the ILI log and calculates a probability that an anomaly remaining in the pipeline could be injurious. The POE analysis methods evaluate the probability that the depth of corrosion is greater than 80% of the wall thickness (potential leak) or the predicted anomaly burst pressure is less than 110% of the MOP (potential pressure release).

After evaluating Vendor data, the Corporate IMP Team will determine if a POE is necessary to evaluate whether any outstanding repair/remediation issues would cause a pipeline failure before the next scheduled assessment interval. Conditions requiring a POE would include the following:

- Metal loss anomalies ≥ 35%
- Pipe manufactured prior to1979
- Leak history within the assessment interval
- Excessive corrosion growth rate

The IMP Team may elect to conduct a POE Analysis when conditions do not meet these criteria. For details on the POE process, see Appendix A: IMP 302: In-Line Inspection Data Evaluation.

3.5. Collecting and Integrating Data

The Company has developed P&M Measures Meetings for the purposes of integrating all available integrity-related information. Personnel from all applicable organizational elements of the Company meet to review the results of integrity assessments and the repair criteria required in *49 CFR Part 195.452 (h) (4)*. A list of potential meeting attendees appears in Section 6.1. During this meeting, personnel will review data, including, but not limited to, the following:

- Cathodic protection data
- Maintenance records
- One-Call data
- Leak history
- Previous assessment results
- Information on how a failure would affect a high consequence area
- Other data pertinent to the pipeline segment

Meeting attendees use maps and data along with their inherent knowledge of the pipeline segment to propose additional remediation locations. Meeting attendees also review any new information such as industry reports, incident reports, or conference presentation materials for consideration during this meeting.

3. Integrity Assessment

This section describes the process by which the Company collects, integrates, categorizes, documents, and distributes the inspection data as illustrated in Figure 3–1: Integrity Assessment Process Flowchart.

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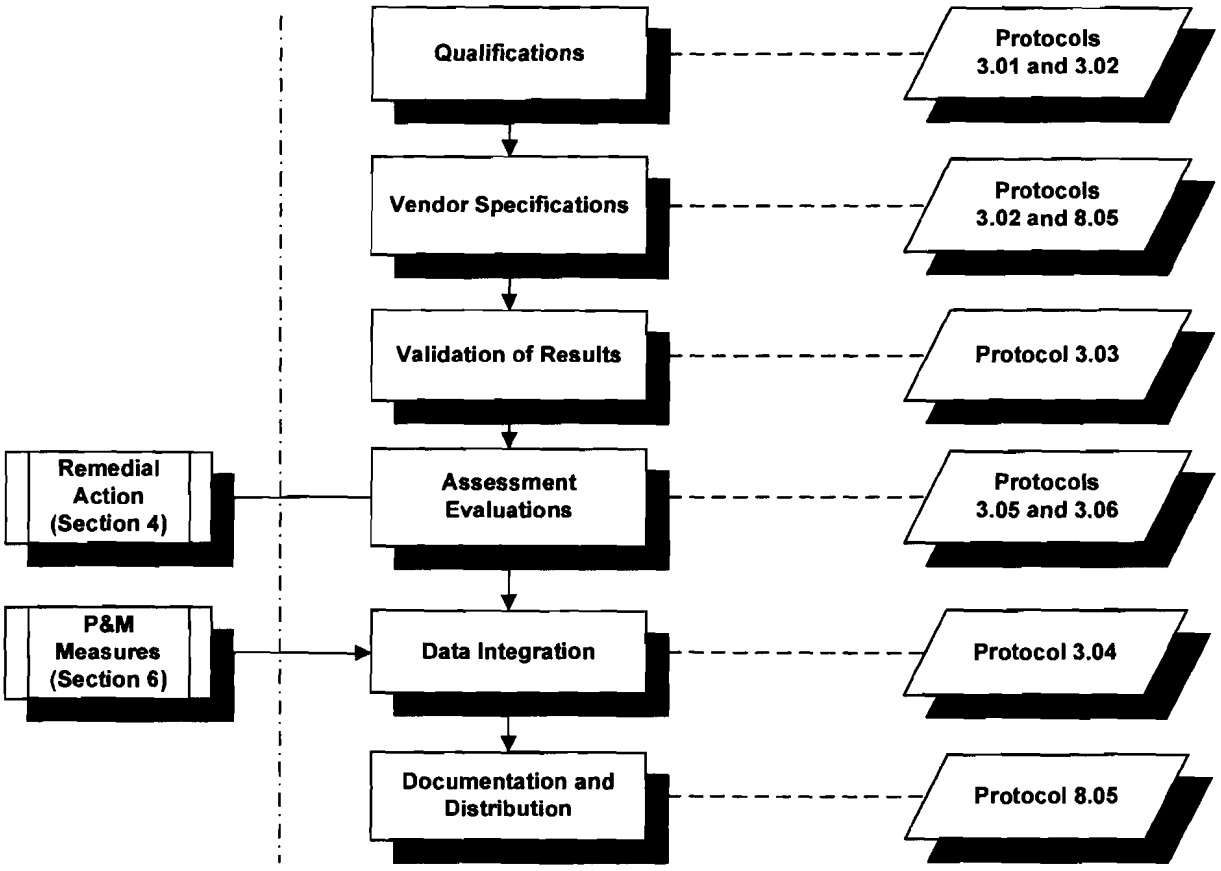

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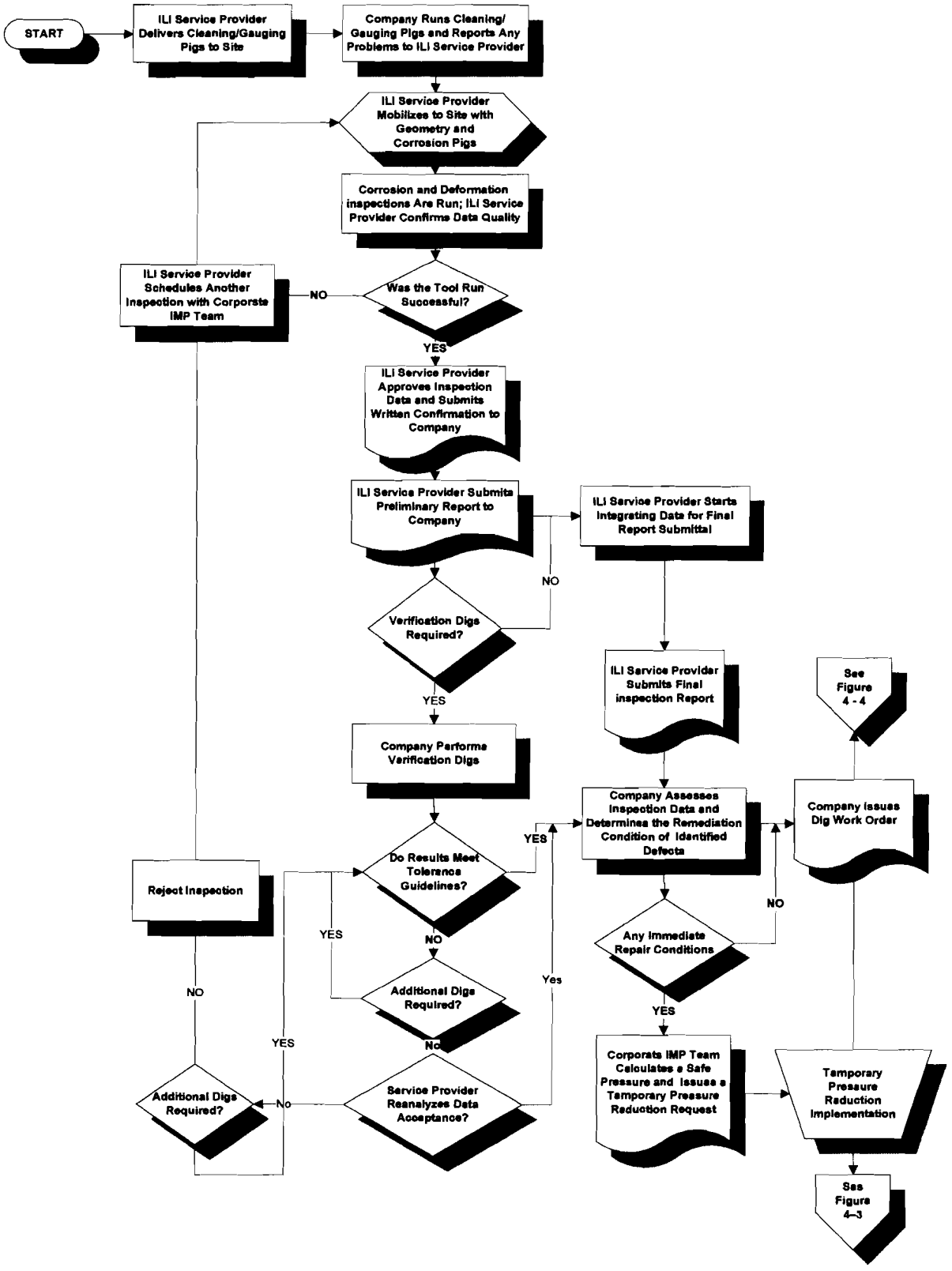

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Any time Company personnel uncover a pipeline, they are required to examine the exposed portion for evidence of external corrosion if the pipe is bare or examine to see if the coating is deteriorated. They should also examine the pipe to gather information for SCC analysis. They record information on the Pipeline Information Report/Defect Evaluation Form. The Company then integrates this data into the integrity assessment results per the Company's data evaluation and integration procedures. Refer to Sections 4.6 and 5.2.4.3 of this Plan for more information.

3.4. Validation of Results

The Company has implemented a formal process for validating the results of an ILI inspection. Appendix A: IMP 302: In-Line Inspection Data Evaluation outlines the Company's use of verification digs (see Section 3.4.4) to compare the results provided in the inspection reports to actual field data. The ILI Service Provider may also use this information to calibrate the data used in evaluation only for data collected by on-site ILI Service Provider personnel. The ILI Service Provider evaluation team uses this calibration of data to aid in providing the Company with a more accurate final report. The Company uses the Probability of Exceedance (POE) Analysis (see Section 3.4.5) to verify that no remaining anomalies left in operation should compromise the integrity of the pipeline.

3.4.1. Evaluating Assessment Results

The Company, with assistance from a third party as necessary, is responsible for evaluating results from each integrity assessment and integrating this information with previous assessment run results, cathodic protection reading results, encroachment information and other relevant information. Decisions about repair and/or remediation actions will consider this integrated information in accordance with the Company's Repair and Remediation Criteria (see Figures 4-2 and 4-3 in Section 4: Remedial Action). The Company will compare previous assessment with current assessment and repair/remediation.

1) The Vendor will submit the final report within 90 days of completion of the assessment. The Company reviews assessment records within 180 days of completing the assessment to ensure that discovery of all repair conditions is complete. See Section 3.4.2.
2) Vendor personnel certifying assessment results must have a minimum ANSI/ASNT Level 3 certification.
3) Company personnel reviewing assessment results will have the following:
   a) Minimum of five years experience in operations, engineering, and/or maintenance work or be working under the supervision of, or in conjunction with, an individual qualified per this section.
   b) Working knowledge of *49 CFR Part 195* and detailed knowledge of *§195.450* and *§195.452.*
   c) Detailed knowledge of Company's Pipeline Integrity Management Plan.
   d) Detailed knowledge of Company's in-line inspection specification and ILI Service Provider contract.
   e) Ability to recognize common anomalies and features from Vendor's log.

f) Have an understanding of ANSI/ASME B31G and Section 451.7 of ASME/ANSI B31.4 calculations and their impact on pipeline operating pressures.

g) Ability to recognize anomalies discovered during field digs.

4) Results evaluation for in-line inspections shall include the following:

a) Location along the pipeline

b) Tool tolerances

c) Tool size

d) Orientation and type of each anomaly

e) Comparison to previous assessment results

f) Expected burst pressure

g) Repair/remediation action required and identification of trends showing degradation of the pipe's condition

5) Personnel evaluating pressure testing assessment results shall have the following qualifications and working experience.

a) Minimum of five years experience in operations, engineering, and/or maintenance work or be working under the supervision of, or in conjunction with, an individual qualified per this section.

b) Working knowledge of *49 CFR Part 195* and detailed knowledge of *§195 Subpart E*, *§195.450* and *§195.452.*

c) Detailed knowledge of Company's Pipeline Integrity Management Plan.

d) Detailed knowledge of Company's pressure testing procedure contained in Company's *Operations, Maintenance, and Emergency Procedures.*

e) Ability to inspect and analyze pressure and temperature logs during an ongoing test for satisfactory/unsatisfactory progress of the test.

f) Ability to determine test pressures based on maximum operating pressure requirements.

g) Ability to recognize a successful test carried out in accordance with *§195 Subpart E* and Company's pressure testing procedure.

6) In the event of a pipeline failure while under pressure test, the Company will send a sample of the failed pipe section for metallurgical evaluation as described in the Company's *Operations, Maintenance, and Emergency Procedures.*

The Corporate IMP Team will meet at least annually to review and discuss areas of interest where training and/or conferences may be offered and beneficial to the development of the Corporate IMP Team.

In the event of a change to the Corporate IMP Team (e.g., new team member(s), change in responsibilities, etc.), the Company will conduct a review to assure that all members have the requisite knowledge to perform their responsibilities.

IMP Training may include, but is not limited to the following:

- PHMSA Pipeline Safety regulation training
- Defect assessment and repair training (e.g., RSTRENG, etc.)
- Vendor software training (conducted by vendor)
- Integrity assessment training (e.g., PHMSA conferences and seminars, Clarion Technical Conferences, Technical Toolboxes courses, etc.)

3.4.2. Discovery of a Condition

The Company defines the discovery of a condition as the time at which it has sufficient information about the condition to determine that the condition presents a potential threat to the integrity of the pipeline and affects an HCA. To facilitate discovery, the Company requires ILI Vendors to comply with the following:

- The Company requires the ILI Service Provider to submit a preliminary inspection survey report of areas with metal loss ≥ 50%, deformation defects ≥ 2% depth with metal loss, and deformation defects ≥ 6% depth on top of the pipe within 30 days of inspection.
- The Company requires the ILI Service Provider to submit a final inspection survey report containing all anomalies within 90 days of inspection.
- The Company designated a maximum of 30 days from delivery of the final report to define the discovery of a condition.

  NOTE: The Company will review both preliminary and final Vendor reports within 48 hours after receipt to establish:

  - If potential "immediate repair" conditions exist
  - If a pressure reduction is necessary to further evaluate the discovery of the condition to determine the need for implementing immediate repair/remediation activities. See Section 4.3.1.
  - If the ILI Service Provider anticipates delays in the data processing, it notifies the Company with an anticipated completion date. The Company documents the terms and conditions of delays in reporting in the ILI Service Provider Vendor Service Agreement.

The provisions listed above give Company personnel time to obtain sufficient information about a condition within 180 days of an integrity assessment. The Company maintains contact with the ILI Service Provider throughout this process and tracks key deliverable dates in the In-Line Inspection Tracking Report. In the event that discovery cannot occur within 180 days from the date of the inspection, the Company will take appropriate and incremental preventive action(s) (e.g., implement a pressure reduction and/or increase pipeline patrols, etc.) and notify PHMSA.

3.4.3. Data Acceptance

The Company has an established process for approving an inspection run before it sends the results to the ILI Service Provider evaluation team. After the ILI Service Provider has approved the inspection results with its data acceptance specification, it reports key inspection variables to the Company for tool run acceptance. The ILI Service Provider captures this information on the Site Completion Checklist (as shown in Table 3–1: Preliminary Acceptance of Inspection Data below), which it then sends to the Corporate IMP Team or appropriate Business Unit. This checklist contains some of the criteria required for an acceptable tool run. The Company compares the information submitted by the ILI Service Provider to the data in Table 3–1: Preliminary Acceptance of Inspection Data below to determine the success of the tool run.

Either the Company or the ILI Service Provider can deem the tool run unacceptable at any stage of this process. Both the ILI Service Provider and the Company disclose reasons why the run is unacceptable on the Site Completion Checklist.

Table 3–1: Preliminary Acceptance of Inspection Data

Condition	Acceptable	Not Acceptable
Data Quality	Legible, low noise	Not reasonable
Recorded Data Length	Distance matches questionnaire	Distance of questionnaire > 250 ft with discussion
Continuous Section w/o Data	< 5 m (16.4 ft)	> 5 m (16.4 ft)
Total Line Length w/o Data	< 5 m (16.4 ft)	> 5 m (16.4 ft)

Condition	Acceptable	Not Acceptable
Primary ILI Tool Channel Loss	< 3	> 3
Secondary ILI Tool Channel Loss	< 5%	> 10%
Magnetization Level	> 10 and < 30 kA/m for more than 90% of the P/L	< 9 and > 31 kA/m for more than 25% of the P/L
Maximum Velocity	< 3.2 m/s or 7 mph for 90% of the P/L	> 3 m/s or < 1 mph for 25% of the P/L
Optimum Velocity	2 to 3.1m/s (4.5-7 mph)	Open for discussion
Minimum Velocity	≤ 0.5 m/s 1.1 mph for more than 90% of the P/L	> 0.3 m/s of 1 mph for more than 25% of the P/L
Weld Signal	Clearly visible	> 30% not detectible
Geometry Signal	≥ 2 % of Pipe diameter and orientation	≥ 2 % of Pipe diameter not detected, no orientation representation
Calculated Wall Thickness	Between 80% and 133% of nominal w.t. for all specified joint types	Open for discussion
Recorded Pit Depth	≤ 5% for 95% of length of p/l	Open for discussion
Rotation	Positive rotation preferred. Check after run	Open for discussion

3.4.4. Verification Digs

The Company may use verification digs to verify tool accuracy and to approve the inspection prior to receiving the final report. The validation matrix listed in For accuracy of ILI measurement of anomalies, see Appendix D: Tool Vendor Requirements, and for anomaly comparison, use Appendix E of API 1163: Inline Inspection Systems Qualification Standard, where applicable: Vendor Data Tolerance–Validation Matrix outlines acceptable tool tolerances as agreed to in the ILI Service Provider Vendor Service Agreement. The Company communicates and documents any inconsistencies with tool inspection data to the ILI Service Provider by completing a Pipeline Assessment Issue Report and submits a completed report to the ILI Service Provider for corrective action. If verification digs are necessary, the Company will use the following criteria to identify select features to investigate

- External metal loss feature ≥ 35%
- Dent on top of pipe ≥ 6%
- Dent with associated metal loss

The Company can also use other features identified either from the preliminary analysis or during excavation for validation purposes.

While verification digs are beneficial in determining the performance of an ILI tool, some ILI assessments may have few anomalies reported by the ILI Vendor and therefore require no verification digs. This process is acceptable under the following conditions:

- The ILI Vendor has a process to verify that the variables established during the data calibration pull-through are within a specified acceptable range.
- The ILI Vendor runs each tool through a series of pre-run and post-run checks.

For accuracy of ILI measurement of anomalies, see Appendix D: Tool Vendor Requirements, and for anomaly comparison, use Appendix E of API 1163: Inline Inspection Systems Qualification Standard, where applicable...

3.4.5. Probability of Exceedance Analysis

The Company performs a Probability of Exceedance Analysis (POE) analysis to validate the integrity of the pipeline within a year after it has made all repairs. This analysis is a valid approach for the following:

- Reducing the probability anomalies left in service that could compromise the integrity of the pipeline
- Remediating additional anomalies that could be injurious to the safe operation of a pipeline
- Determining pipeline system reassessment intervals

The POE analysis is a statistical method that utilizes tool tolerances, reported corrosion depths, and operating pressure criteria data to evaluate all unremediated anomalies from the ILI log and calculates a probability that an anomaly remaining in the pipeline could be injurious. The POE analysis methods evaluate the probability that the depth of corrosion is greater than 80% of the wall thickness (potential leak) or the predicted anomaly burst pressure is less than 110% of the MOP (potential pressure release).

After evaluating Vendor data, the Corporate IMP Team will determine if a POE is necessary to evaluate whether any outstanding repair/remediation issues would cause a pipeline failure before the next scheduled assessment interval. Conditions requiring a POE would include the following:

- Metal loss anomalies ≥ 35%
- Pipe manufactured prior to1979
- Leak history within the assessment interval
- Excessive corrosion growth rate

The IMP Team may elect to conduct a POE Analysis when conditions do not meet these criteria. For details on the POE process, see Appendix A: IMP 302: In-Line Inspection Data Evaluation.

3.5. Collecting and Integrating Data

The Company has developed P&M Measures Meetings for the purposes of integrating all available integrity-related information. Personnel from all applicable organizational elements of the Company meet to review the results of integrity assessments and the repair criteria required in *49 CFR Part 195.452 (h) (4)*. A list of potential meeting attendees appears in Section 6.1. During this meeting, personnel will review data, including, but not limited to, the following:

- Cathodic protection data
- Maintenance records
- One-Call data
- Leak history
- Previous assessment results
- Information on how a failure would affect a high consequence area
- Other data pertinent to the pipeline segment

Meeting attendees use maps and data along with their inherent knowledge of the pipeline segment to propose additional remediation locations. Meeting attendees also review any new information such as industry reports, incident reports, or conference presentation materials for consideration during this meeting.