



Pipeline Integrity Management Program (IMP) Assessment Form and Guidelines

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ALBERTA ENERGY AND UTILITIES BOARD
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N.1 INTRODUCTION

This Pipeline Integrity Management Program Assessment Form has been developed to assist the Alberta Energy and Utilities Board (EUB) in performing assessments of pipeline integrity management programs (IMPs). The form follows the layout of Annex N in *CSA Z662: Oil and Gas Pipeline Systems*. Major sections are numbered in accordance with Annex N, with the exception of Section N.2.

The key objectives of the assessment process are to

- verify that the licensee has a documented pipeline IMP,
- verify that the licensee has identified and addressed the necessary components of a pipeline IMP in relation to its specific pipeline system,
- verify that the licensee has developed integrity plans and procedures in accordance with Annex N, and
- document the results of the assessment to use in EUB field verification of the implementation of the pipeline IMP.

The sections within this form were directed by the topics outlined in Annex N. Using Annex N as a reference would assist the person(s) filling out the form to achieve the best answer. Guidance is provided under each question in the assessment form. This guidance is not intended to prescribe answers, and the answers are not limited to the suggestions provided.

The licensees must identify the type of information and material necessary to fulfill the requirements of Annex N and address any deficiencies as part of the continual improvement of the licensee's IMP. This assessment form should be used as a guide for the licensee to understand the types of information and materials needed to achieve the requirements. The EUB encourages the licensee to submit a completed EUB Pipeline Integrity Assessment Form if chosen by the EUB for an IMP assessment. This will allow the EUB to assess the IMPs of its licensees in a standardized manner.

For a successful program to be implemented, more than one person or one group within the company needs to be part of the assessment process. Any opportunity to have more than one person review or fill this form would be the most effective in capturing the company's IMP.

In this form, "company" and "operator" are the licensee, and "outside operator" is a company operating the pipeline system(s) on behalf of the licensee.

N.2 LICENSEE INFORMATION

Company or operator name			
EUB business associate (BA) code			
Head office address, phone and fax numbers			
Name of primary contact (contact information should be added to the list below)			
Name(s) of person(s) completing form	Position in company	Position in pipeline IMP	Contact information (address, telephone, fax, e-mail)

N.3 DOCUMENTATION AND INFORMATION METHODS

This section describes the methods for collecting, documenting, and integrating information within the IMP.

QUESTION / Guidance Notes	RESPONSE
<p>How is the IMP documented?</p> <p>A description of the document containing the company's overall IMP.</p>	
<p>How are the environmental protection and public safety programs integrated into your IMP?</p> <p>A description of independent public safety and environmental programs integrated into your IMP.</p> <p>Possible items to include in the answer are how environmental protection and public safety are integrated into</p> <ul style="list-style-type: none"> - consequence and risk analysis - operating procedures - incident reporting - change management procedures 	
<p>How are asset changes, such as discontinuation or abandonment of a pipeline, contained in your integrity management documentation system?</p> <p>A description of how asset changes are integrated into your integrity management documentation system.</p> <p>Possible items to include are how asset changes are integrated into</p> <ul style="list-style-type: none"> - consequence and risk analysis - operating procedures - change management procedures 	

N.4 PIPELINE INTEGRITY MANAGEMENT PROGRAM SCOPE

This section provides general information that describes the company's pipeline system(s), including where the pipeline information is maintained and documented. This section also includes a general description of the unique aspects of the pipeline systems.

QUESTION / Guidance Notes	RESPONSE
<p>Provide a brief narrative of the company's pipeline system, describing the capacity, purpose, substances, material, pipeline dimension, and coating type and the physical surroundings along the pipeline route.</p> <p>An overview of the pipeline system.</p> <p>See CSA Z662, Annex B, Section B.5.2.2 for possible items to include in the overview answer.</p>	
<p>What kind of system does your company use to maintain pipeline system information, and where is the system located?</p> <p>A description of the system used to keep pipeline system information and the location where the system is maintained.</p> <p>Possible items to include in the answer:</p> <ul style="list-style-type: none"> - GIS-based system - databases and spreadsheets - maps and as-built information - supervisory control and data acquisition (SCADA) system - local or central offices where information is maintained for the pipeline system 	
<p>How and what unique aspects of the pipeline, such as age, location, substances, and past history, does your company include?</p> <p>A general description of the unique aspects of the pipeline system that are considered when integrating into the IMP. A description of how the unique aspects of the pipeline system are integrated into the IMP.</p> <p>Possible items to include in the answer:</p> <ul style="list-style-type: none"> - the pipeline(s), control valves, and surface facility installations, if so equipped - watercourses in proximity to the pipeline - significant topographical features, such as roadways and railways 	

<ul style="list-style-type: none">- the corporate boundaries of any city, town, or village in proximity- any environmentally sensitive areas or special areas in proximity- the physical and chemical properties of the substance transmitted- consequence and risk analysis- operating procedures- incident reporting- change management procedures	
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N.5 CORPORATE POLICIES, OBJECTIVES, AND ORGANIZATION

This section verifies that the company has set corporate policies and objectives for the pipeline IMP and that there is corporate support for the program. To be effective, pipeline IMPs require a visible and documented commitment from senior management that outlines the company's responsibility to develop, implement, and maintain an adequate and effective pipeline IMP. The company must also identify persons responsible for the pipeline IMP.

QUESTION / Guidance Notes	RESPONSE
<p>Describe your company's policies, objectives, and performance indicators for its IMP.</p> <p>The company's policy should describe a program, its purpose, and its objectives and should contain a commitment to the program's continual improvement.</p> <p>The policy and objectives should include</p> <ul style="list-style-type: none"> - an appropriate purpose for an IMP - a commitment to comply with requirements - a commitment to continual improvement of the IMP - a framework for establishing a review of the objectives - commitments that are communicated and understood by the rest of the company - measurable objectives established for relevant functions and levels within the organization - objectives to be measured through the goals described within the policy - performance indicators, for example, failures reduced by what % in 2006 	
<p>What are the most significant challenges affecting the company's overall performance associated with the IMP?</p> <p>Description of the company's challenges related to the IMP.</p> <p>Possible items to include in the answer:</p> <ul style="list-style-type: none"> - unique workload issues - staffing issues - expertise challenges - training challenges - significant challenges with the condition of the pipeline - communication challenges 	

<p>- integrity management implementation issues</p>	
<p>Who is responsible within your company to communicate the following:</p> <ul style="list-style-type: none"> a) pipeline IMP development and improvement b) records management c) pipeline IMP planning and reporting d) implementation of plans e) integrity performance indicators f) integrity program audits, reviews, and evaluations <p>A list of position and department titles that are relevant to the integrity aspects listed in the question.</p>	
<p>How are the people identified in the question above coordinating the communication throughout the company, including the groups performing the design, construction, operation, and maintenance of the pipeline?</p> <p>This is a description of how the integrity groups communicate essential information throughout the company.</p> <p>Possible items to include in the answer:</p> <ul style="list-style-type: none"> - flow or organizational chart outlining which individuals communicate with groups on IMP - communicating media, such as e-mail, conferences, meetings - communication management plan; - company-wide integrity status reporting, such as performance reviews and trends - company-wide notification system 	

N.6 PIPELINE INTEGRITY MANAGEMENT PROGRAM RECORDS

Management of records is required to operate a pipeline IMP. This section verifies that the company has prepared a method for managing the appropriate records related to pipeline design, construction, operations, and maintenance.

QUESTION / Guidance Notes	RESPONSE
<p>Describe what records are collected regarding design, construction, operation, and maintenance.</p> <p>Describe the types of records collected for the administration of pipeline integrity activities.</p> <p>Consider including the items in <i>CSA Z662</i> and Section N.6.1.</p>	
<p>How does your company manage records for pipeline design, construction, operation, and maintenance?</p> <p>A description of the records system involving the design, construction, operation, and maintenance aspects of the company, including how individuals access the system.</p> <p>Possible items to include in the answer:</p> <ul style="list-style-type: none"> - pipeline system filing - database systems - field information collection system - SCADA archiving operational history 	
<p>How does your company integrate records that originate from any contractors, outside operators, or purchased assets?</p> <p>A description of how third-party records are integrated into the correct record system.</p> <p>Possible items to include in the answer:</p> <ul style="list-style-type: none"> - procedures in integrating third-party documents - contracts that establish the type of information needed for the operator's information system - GIS and risk system access to the company's IMP records system - integration system of operational reports 	

<p>Describe your document control system for creating, updating, retaining, archiving, and retrieving records?</p> <p>A description of the process and procedures for creating, updating, retaining, archiving, and retrieving the company's records.</p> <p>Examples of what could be included in a record's documentation system:</p> <ul style="list-style-type: none"> - archiving system for older records - creation and implementation of record templates - timeline for initiating a record through to entering it into the company's record system - time periods for retaining records - protection for record loss or damage - control of changes to record templates - quality control on the information collected in a record - record delivery to appropriate storage areas - time period for retrieving records - record availability 	
<p>Describe your document control system for creating, updating, retaining, archiving, and retrieving written procedures?</p> <p>A description of the document control system for written procedures.</p> <p>Examples of what could be included in a document control system:</p> <ul style="list-style-type: none"> - adequacy of record or document are approved prior to issue - records or documents are updated as necessary and reapproved - changes to the current revision status of documents are identified - relevant versions of applicable records or documents are available at points of use - documents of external origin are identified and distribution is controlled - use of obsolete documents is prevented and ways to identify these documents, if retained, are set out 	

N.7 COMPETENCY AND TRAINING

This section verifies that the company has developed and implemented competency and training requirements for company personnel, contractors, and consultants that are responsible for performing the elements (design, construction, and operations) of the pipeline IMP. It also verifies how documentation of these competencies are collected and maintained.

QUESTION / Guidance Notes	RESPONSE
<p>How does your company develop and implement competency and training requirements for</p> <p>a) company personnel</p> <p>This is a description of how the company determines when and what training is needed for its employees.</p> <p>Items to consider including in the description:</p> <ul style="list-style-type: none"> - training path for personnel development - review of personnel numbers, promotions and hires, transfers, and training schedules - identification of covered tasks - frequency of training classes based on development training plan - frequency of training determined based on a recertification, if within the company's training plan - frequency of training determined based on a requalification, if within the company's training plan 	
<p>b) contractors</p> <p>This is a description of how the company determines what training is needed for its contractors.</p> <p>Items to consider including in the description:</p> <ul style="list-style-type: none"> - requirements for qualification - certifications - performance evaluations - safety requirements - confirmation of performance in covered task - current codes, standards, and regulations 	

<p>c) consultants</p> <p>This is a description of how the company determines what training is needed for its consultants.</p> <p>Items to consider including in the description:</p> <ul style="list-style-type: none"> - requirements for qualification - certifications - performance evaluations - safety requirements - current codes, standards, and regulations 	
<p>What methodology is used to evaluate the knowledge and skills of employees, contractors, and consultants?</p> <p>A description of how the knowledge and skills of the employees are evaluated.</p> <p>Items that could be considered in the description:</p> <ul style="list-style-type: none"> - qualification programs - performance evaluations in covered tasks - certification programs, if stated in the company's training program, such as H₂S Alive, CPR, Ground Disturbance - lessons learned from failures - examination in covered tasks - practical assessments - retesting intervals - path to further improvement, if issues in performance 	
<p>Who is responsible for developing and implementing training requirements and training frequency?</p> <p>A list of position titles and department titles that is relevant to the training.</p>	
<p>What methodology is used to verify that the competency and training programs are effective?</p> <p>A description of how the training personnel determine whether the company's training programs are</p>	

<p>designed adequately to ensure that the tasks being performed on the pipeline are done by competent employees.</p> <p>Items that could be considered in the description:</p> <ul style="list-style-type: none"> - annual (or higher frequency) meetings on training development and needs - review of training in relation to annual integrity management review and implementation - review of training budget and resources for future - evaluation of training programs against current codes, standards, and regulation - analysis of total performance and assessments results 	
<p>How is competency and training documentation collected and maintained?</p> <p>A description of the steps for tracking, collecting, and maintaining training records.</p> <p>Possible items to include in the description:</p> <ul style="list-style-type: none"> - training records documentation procedures - training matrices - training personnel files - internal training database system - external training database system 	

N.8 CHANGE MANAGEMENT

This section verifies that the company has developed and implemented a change management process and has developed procedures to identify and consider the impact of changes on the pipeline system(s). The process and procedures should include all technical and physical changes to the pipeline design, new construction operations, and maintenance.

QUESTION / Guidance Notes	RESPONSE
<p>How does your company monitor and anticipate changes within its pipeline system that might affect the integrity of the pipeline(s)?</p> <p>A description of how the integrity of the pipeline is monitored and how changes are anticipated.</p> <p>Possible items to consider including:</p> <ul style="list-style-type: none"> - SCADA - results from inspection programs - failure analysis and trending other parts with similar attributes - substance changes and the effects on pipeline materials - deviation from integrity operating and design plan - risk review - how pipeline personnel recognize a potential natural hazard (e.g., training, anticipating conditions, verifying inspection results) 	
<p>What does the change management process consider?</p> <p>A description of all possible scenarios for the pipeline system that would initiate a change management.</p> <p>Consider including the items in Section N.8.1.</p>	
<p>What are the procedures for implementing change management throughout the company?</p> <p>This should describe the procedures and steps performed throughout the company to implement a change management.</p> <p>Possible items to consider including:</p> <ul style="list-style-type: none"> - change management procedures manual 	

<ul style="list-style-type: none"> - change management group responsible for identifying and communicating with affected groups - matrix outlining communication flow and responsibility - a system for documenting and reporting change and the change implementation status - corrective action system 	
<p>How do personnel know when change management procedures must be initiated?</p> <p>A description of how a change management is communicated to the affected personnel to trigger the implementation of the appropriate procedures on the pipeline. A description of how personnel can recognize a change on the pipeline that should initiate a change management.</p> <p>Suggested items to consider:</p> <ul style="list-style-type: none"> - e-mail update system - initiate software system giving notification - deviation from normal operating conditions - communication changes to affected parties - inspection and patrolling frequency changes - substance changes - corrective actions 	
<p>What changes to the design and operation of the pipeline trigger the company to perform an engineering assessment?</p> <p>A description of the changes in design and operation of the pipeline that would involve engineering assessments.</p> <p>Suggested items to consider:</p> <ul style="list-style-type: none"> - substance change, with assessment of pipeline material - installation issues - pressure issues - tie-ins 	

<ul style="list-style-type: none"> - acquisition of other pipelines - hydrotesting results - new integrity challenges - class location changes - activity near the pipeline - deviation from the original design or conditions - deviations from normal operating conditions 	
<p>How is the engineering assessment integrated into the change management process?</p> <p>A description of the engineering assessment procedures that are initiated through the change management process.</p> <p>Suggested items to consider:</p> <ul style="list-style-type: none"> - engineering review process - status review meetings - change controls and triggers communicated to areas affected 	

N.9 FAILURE AND EXTERNAL INTERFERENCE INCIDENT INVESTIGATIONS

This section verifies that the company has developed effective procedures for investigating, reporting, and evaluating failures and external interference incidents. The company may wish to develop procedures specific to its pipeline system(s).

QUESTION / Guidance Notes	RESPONSE
<p>What procedures, including documentation and communication, does your company have for investigating and reporting failures and external interference incidents?</p> <p>A description of the company's failure and external interference incident procedures and how these procedures are coordinated, from the initial failure or external interference incident to changes needed to improve the effectiveness of the IMP.</p> <p>Examples that could be used as a guide for further description:</p> <ul style="list-style-type: none"> - communication procedures to report a failure and external interference incident - failure and external interference incident record and documentation system - failure and external interference incident investigation procedures; - guidelines to reporting incidents to public and regulatory bodies - procedures for triggering analysis to determine changes needed to improve the pipeline IMP 	

N.10 HAZARD IDENTIFICATION AND CONTROLS

This section verifies that the company has identified potential major hazards that could be a threat to the pipeline system(s).

QUESTION / Guidance Notes	RESPONSE
<p>What are the major hazards to the pipeline system that your company has identified?</p> <p>A description of the major hazards to the pipeline system or a pipeline segment that your company has identified.</p> <p>Examples that could be used as a guide for further description:</p> <ul style="list-style-type: none"> - design issues regarding missing information, improper design and engineering, improper material selection - construction issues regarding missing information and improper construction and inspection practices - operator errors, including incorrect operating procedures - occurrence of failure and external interference incidents due to imperfections, such as corrosion, material, manufacturing, and construction - environmental forces - construction activity near the pipeline 	
<p>What methods are used to identify potential major hazards?</p> <p>A description of how potential major hazards to the pipeline system are identified. CSA Z662, Annex B, Section B.5.2.3.2 could be used as a guide to possible methods of hazard identification.</p> <p>Examples that could be used as a guide for further description:</p> <ul style="list-style-type: none"> - comparative methods - structured methods - methods that provide a logical pathway to translate different release or initiating events into possible outcomes - information gathering, such as brainstorming; interviewing; and 	

<p>strengths, weaknesses, opportunities, and threats analysis</p> <ul style="list-style-type: none">- where records or information is incomplete, how potential hazards are determined	
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N.11 RISK ASSESSMENT

This section verifies that the company has evaluated and reduced the risks to its pipeline system(s).

QUESTION / Guidance Notes	RESPONSE
<p>How does your company conduct a risk assessment?</p> <p>A description of the company's method and approach to performing a risk assessment of a pipeline segment or system.</p> <p>This description could include how the measures of risk are selected for the risk assessment and how the risk assessment results are validated. <i>CSA Z662, Annex B</i> could be used as a guide to possible methods of performing a risk assessment.</p> <p>Additional suggestions that could be used as a guide for further description:</p> <ul style="list-style-type: none"> - probability/impact risk rating matrix - risk probability/impact scales - data precision ranking - interviewing - sensitivity analysis - decision tree analysis - dynamic segmentation and analysis - annual frequency and scale of release incidents - likelihood of public harm per release incident - potential extent of environmental damage per release incident - validation of analysis by performing additional observations and analysis about the presence, location, and severity of identified hazards or imperfections - validation of analysis by performing additional observations and analysis of the operating conditions - a selection of a more rigorous approach for the risk analysis and estimates based on high risk levels 	

<p>How does your company document the risk assessment?</p> <p>A description of the documentation and records of the risk assessment.</p>	
<p>What factors does your company consider in determining when to perform a risk reassessment of a specific pipeline system or segment?</p> <p>A description of changes to the pipeline system or discoveries that would trigger a reassessment of the risk to the pipeline.</p> <p>Examples that could be used as a guide for further description:</p> <ul style="list-style-type: none"> - changes in operational conditions - failure and external interference incidents - inspection results - class change or population encroachment - pipeline upgrades - an increase in perceived severity of the consequences associated with a particular hazardous event 	
<p>How does the risk reassessment tie into the change management process?</p> <p>A description of the process of communication those performing the risk reassessment use to initiate or respond to a change management.</p> <p>The description might consider including and expanding on the question listed below:</p> <ul style="list-style-type: none"> - How and what notification system is used to communicate a management of change or risk reassessment? 	

N.12 OPTIONS FOR HAZARD CONTROL AND RISK REDUCTION

This section verifies that the company has in place programs to eliminate or reduce the threats to the pipeline system(s) and reduce the potential consequences of the threats.

QUESTION / Guidance Notes	RESPONSE
<p>What programs have been developed to reduce threats to the pipeline system, including threats of failure incidents, and to reduce the consequence(s) identified from the analysis of potential risks?</p> <p>A description of additional programs or enhancements to existing programs to reduce threats to the pipeline system, including threats of failure incidents, and to reduce the potential consequences.</p> <p>Suggested items to consider:</p> <ul style="list-style-type: none"> - external/internal corrosion program - pigging program - in-line inspection program - repair program - additional inspection and maintenance programs - damage prevention program - public awareness program - training program - emergency response planning 	
<p>Provide in detail an example of a program developed to reduce threats in the following:</p> <p>a) design</p>	
<p>b) construction</p>	
<p>c) operations and maintenance</p>	
<p>d) natural hazards</p>	
<p>Provide sample details of consequence reduction.</p>	

N.13 PIPELINE INTEGRITY MANAGEMENT PROGRAM PLANNING

This section verifies that the company has a management program that includes the planning and scheduling of integrity management activities and a review of the results of such activities. The pipeline IMP should also include pipeline design and construction.

QUESTION / Guidance Notes	RESPONSE
<p>How are the integrity management activities determined and how is scheduling of various activities tabulated, presented, and tracked?</p> <p>A description of the program planning and scheduling of integrity activities. The following are suggested examples that could be used as a guide.</p> <p><u>Tabulated:</u></p> <ul style="list-style-type: none"> - results from inspections triggered by hazard analysis - analyzed inspection results of discovered imperfections or pipeline integrity issues and assigned severity of risk - results from failures and external interference incidents of the operating company and in the pipeline industry as a whole <p><u>Scheduled:</u></p> <ul style="list-style-type: none"> - inspection based on severity of discovered imperfections or pipeline integrity issue - inspection frequency determined by the severity of the risk to the pipeline based on hazard analysis and the certainty of the risk assessment - inspections incorporated into other operational program schedules - based on the evaluation of known conditions, damage, or imperfections <p><u>Presented and Tracked:</u></p> <ul style="list-style-type: none"> - Excel spreadsheets - operational calendars - operational binders containing information on what was performed on the pipeline - internal database system with access from assigned personnel - tracked by assigned personnel 	

<p>What steps are taken for consulting with and informing appropriate personnel about activities that deal with integrity issues and programs?</p> <p>A description could cover</p> <ul style="list-style-type: none"> - reporting procedures being practised by pipeline personnel performing programs on the pipeline - communication plan for integrating gathered integrity information into integrity management system - standard minimum integrity-related data to be collected during all programs - training personnel to recognize an integrity issue while performing activities on the pipeline (abnormal operating conditions) 	
<p>How does your company review and verify that the integrity management activities were effectively completed?</p> <p>A description of how the company reviews and verifies that the integrity plan was properly performed.</p> <p>Consider including the items in Section N.13.4.</p>	

N.14 INSPECTIONS, TESTING, PATROLS, AND MONITORING

This section verifies that the company has developed documented procedures and established timing and frequency intervals for monitoring and inspecting the pipeline(s).

QUESTION / Guidance Notes	RESPONSE
<p>What documented methods and procedures for conducting inspection, testing, patrols, and monitoring pipeline(s) are in place?</p> <p>See the requirements in <i>CSA Z662</i>, Annex N, Clauses 9 and 10, and N.14.</p>	

N.15 EVALUATION OF INSPECTION, TESTING, PATROL, AND MONITORING RESULTS

This section verifies that the company has documented methods to evaluate the results of the inspection, testing, patrol, and monitoring of the pipeline(s) and has processes in place to take the necessary actions to address indications or imperfections that may lead to a pipeline failure.

QUESTION / Guidance Notes	RESPONSE
<p>How is the condition of the pipeline evaluated using engineering assessment methods to determine whether indications or imperfections could lead to failure and how are the corrective actions developed?</p> <p>A description of the method used to determine whether indications or imperfections are injurious or noninjurious to the pipeline using the engineering assessment process. This question also includes how the engineering assessment results are used to develop corrective actions.</p> <p>The description might include and expand on the questions listed below:</p> <ul style="list-style-type: none"> - How do inspection results trigger an evaluation of the condition of the pipeline? - What methods are used to collect data on an indication or imperfection? - What engineering evaluation methods are used (e.g., B31G; DNV-RP-F101; API 1102; CSA Z662, Clauses 4 and 10.8)? - How and when are corrective action procedures initiated by the operating company as a result of the engineering assessment? 	
<p>If natural hazards are present, what programs are in place to monitor the condition of the pipeline?</p> <p>A description of the process involved in monitoring for natural hazards, if present.</p> <p>The description might include and expand on the questions listed below:</p> <ul style="list-style-type: none"> - What types of inspections and patrols are performed? - What types of monitoring programs for slope movement are used? 	

N.16 MITIGATION AND REPAIR

This section verifies that the company has developed and documented corrective actions to mitigate and repair anticipated conditions or imperfections in the pipeline that could cause a failure with significant consequence.

QUESTION / Guidance Notes	RESPONSE
<p>What types of corrective actions are in place for anticipated conditions or imperfections that could cause a failure incident?</p> <p>A description of the corrective action procedures developed by the engineer for known or anticipated conditions or imperfections in order to perform the mitigation and repair on the pipeline.</p> <p>Items to consider include</p> <ul style="list-style-type: none"> - corrective actions designed and available to pipeline personnel as standard procedures if discovery of pipeline integrity threat - adjustments to the operating parameters of the pipeline - repair procedures, such as grinding, pressure containment sleeve, or reinforcement containment sleeve - pipe replacement programs 	
<p>How are the mitigation and repairs on the pipeline documented and made available to the appropriate personnel?</p> <p>A description of the repair reports that may be put into an internal system that is available to personnel responsible for pipeline integrity.</p>	

N.17 PIPELINE INTEGRITY MANAGEMENT PROGRAM REVIEW AND EVALUATION

This section verifies that the company has developed a review and evaluation process to determine the effectiveness of its pipeline integrity management program.

QUESTION / Guidance Notes	RESPONSE
<p>How does your company perform reviews, and evaluations to determine the effectiveness of the pipeline IMP?</p> <p>A description of what methods and procedures are implemented when performing a review of the IMP and the process used to evaluate whether the IMP is effective by determining the successes and failures within the program.</p> <p>The description might include and expand on the questions listed below:</p> <ul style="list-style-type: none"> - How is the accuracy of the program evaluated? - When are the IMP reviews conducted? - How are the planned activities evaluated in accordance with the plans and procedures? - What is involved in the auditing process? - How are corrective actions identified and implemented? - How are nonconformances identified in a timely manner? - How were the recommendations from the previous IMP review and evaluation addressed? - What is involved in undertaking a performance review of the management system for the IMP? - What is the company's continual improvement process? 	
<p>How does your company select areas within the pipeline integrity management program for a review and evaluation of effectiveness?</p> <p>A description of when reviews should be performed on a pipeline system and the criteria used to select the system. The description should include the rationale and method for choosing a pipeline system as a relevant sample to verify the effectiveness of the IMP.</p>	

<p>The items below could be used as a guide in describing how a pipeline system is chosen for a review and evaluation:</p> <ul style="list-style-type: none"> - a process for identifying a pipeline system as a sample of the IMP - an examination of the previous IMP prompting an audit - an assessment of significant change in the operating condition of a pipeline system - an analysis of performance indicators - an analysis of potential occurrence of external interferences and failures incidents - an analysis of recent failures suggesting an IMP audit on a particular pipeline system 	
<p>How are the results of the review and evaluation of the IMP documented?</p> <p>A description of what is documented during the review and evaluation.</p> <p>The items below could be used as a guide for describing what is included in the review and evaluation documentation:</p> <ul style="list-style-type: none"> - integrity management policy and program - record of responsible individuals in the IMP - all required IMP activities - all corrective action items and major and minor nonconformances - risk criteria used - record of the risk results and implications - audit results - IMP review results 	
<p>How are the results of the reviews and evaluations integrated into the continual improvement of the IMP?</p> <p>A description on how the IMP is updated based on the results of the reviews and evaluations to increase the effectiveness of the program.</p> <p>The description might include and expand on the questions listed below:</p>	

<ul style="list-style-type: none">- How are the corrective and preventive actions used in the management review?- How are the company's policies and procedures adapted to the findings of the review?- What would constitute a change in the company's objectives based on the findings?	
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N.18 COMPANY MANAGEMENT RESPONSE

This completed form confirms that [Company] meets the requirements of CSA Z662, *Annex N: Pipeline Integrity Management Program*.

[Company] does not meet requirements of CSA Z662, *Annex N: Pipeline Integrity Management Program*.

Name (Print): _____ Title: _____

Signature: _____ Date: _____