Basin Electric Power Cooperative
Transmission Pipeline
Integrity Management Plan

Basin Electric Power Cooperative (BEPC) recognizes the importance of operating and maintaining their transmission line to insure public safety. In addition to insuring public safety, safe operation of their natural gas transmission facilities may reduce overall maintenance and operating cost. To assure this goal, BEPC has established and fully supports this Integrity Management Plan for their transmission facilities.

This plan covers BEPC, Operator ID (32145), natural gas transmission lines. Specifically, this plan covers the following pipelines:

1. 10" pipeline running from the Northern Border Pipeline starting approximately 2 miles South and 1 mile West of Verdon, SD and terminating at the Groton Generation Station, located approximately 5 miles South of Groton, SD
2. 10" pipeline running from the Northern Border Pipeline starting approximately 1 mile East and 0.7 mile North of Astoria, SD and terminating at the Deer Creek Station located approximately 6 miles East and 2 miles South of White, SD.

The Vice President – Plant Operations, BEPC is responsible for the overall implementation and conduct of this integrity management plan (IMP). The Vice President – Plant Operations will provide all resources necessary for the effective implementation of the IMP.

The Manager – Distributed Generation is responsible for the day–to–day implementation of this plan. Unless identified otherwise, the Manager – Distributed Generation is also responsible for the development, implementation, evaluation, recordkeeping and revision of all sections of the plan. Further, the Manager – Distributed Generation will utilize subject matter experts to evaluate the existing data and recommend appropriate courses of action. Subject matter experts may include BEPC Headquarters personnel, BEPC Station personnel and Contract personnel who, by training or experience, possess the background, knowledge and experience to accurately evaluate the data. In addition, the Manager – Distributed Generation will be responsible for insuring that all necessary plans are developed and implemented.

A "transmission line" is defined in 49 CFR 192.3. To further clarify this definition: a transmission line is any pipeline that operates at a pressure at or above that pressure necessary to generate 20% or more of Specified Minimum Yield Strength (SMYS) of the pipe; or transports gas from a gathering line or storage facility to a distribution center, storage facility, or large volume customer that is not downstream from a distribution center.

To adequately address all elements of an IMP, BEPC has developed the following plan. This plan is divided into fifteen sections, one for each element of the program. Each section is to be utilized to accomplish the specific task addressed in that section.

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Section 1
Identification of High Consequence Areas

The first step in an integrity management program is to identify areas of the pipeline that pose the greatest possibility of loss of life should a failure occur (HCA). On behalf of BEPC, the Generation Department will have ultimate responsibility for classification of "high consequence areas" on transmission lines owned by BEPC. The following procedure is to be used to accomplish this:

IDENTIFICATION OF HIGH CONSEQUENCE AREAS

High Consequence Areas (HCAs) are determined using one of the following methods—

(1) An area defined as
- i. A Class 3 location under §192.5; or
- ii. A Class 4 location under §192.5; or
- iii. Any area in a Class 1 or Class 2 location where the potential impact radius is greater than 660 feet (200 meters), and the area within a potential impact circle contains 20 or more buildings intended for human occupancy; or
- iv. Any area in a Class 1 or Class 2 location where the potential impact circle contains an identified site.

(2) The area within a potential impact circle containing—
- i. 20 or more buildings intended for human occupancy, unless the exception in paragraph (4) applies; or
- ii. An identified site.

Both HCA identification methods use the Potential Impact Radius (PIR) of the pipeline. The PIR is defined as the radius of a circle within which the potential failure of a pipeline could have significant impact on people or property. The PIR (ft) is determined by the formula:

$$PIR = 0.69 * (d^2 * p)^{1/2}$$

where "d" is the nominal outside diameter of the pipeline (inches) and "p" is the MAOP of the pipeline (PSIG).

0.69 is the factor for natural gas. This number will vary for other gases. Operators transporting gas other than natural gas or natural gas with a heat content greater than 1000 BTU/SCF must use section 3.2 of ASME B31.8 to calculate the impact radius formula.

Both methods require the operator to evaluate identified sites. Identified sites are areas that meet one of the three following criteria:

- An outside area or open structure that is occupied by twenty (20) or more persons on at least fifty (50) days in any twelve (12) month period. These days need not be consecutive. Examples are: Beaches, playgrounds, campgrounds, stadiums or areas outside of rural buildings such as churches.

- A building that is occupied by twenty (20) or more persons on at least five (5) days a week for ten (10) weeks in any twelve (12) month period. The days and weeks need not be consecutive. Examples are religious facilities, office buildings, recreational buildings, and general stores.

- A facility occupied by persons who are confined, are of impaired mobility or would be difficult to evacuate. Examples are nursing homes, prisons, schools and daycare facilities.

The rule allows BEPC to select either of the two methods to identify HCAs along a covered pipeline. The method used to determine HCAs on a pipeline can be different for separate pipelines or both methods can be used on different segments of the same pipeline. The method used on each segment of the pipeline must be documented.

The Generation Department will have ultimate responsibility for classification of "high consequence areas" on transmission lines owned or operated by BEPC. The following procedure is to be used to accomplish this:

IDENTIFICATION OF HIGH CONSEQUENCE AREAS

The initial step in determining HCAs is preparing the maps using BEPC's GIS system. The transmission lines are placed into the GIS system and an overlay of these lines are placed over aerial photos of the area the transmission pipeline runs through. The 660 foot buffer zone as well as the PIR for the pipeline is added to the map. The maps are reviewed for potential HCAs using the criteria for the method BEPC deems most appropriate for that segment of pipeline.

Method 1: Class Location

Class locations are determined by the number and type of buildings within the 660 foot buffer of either side of the centerline for one continuous mile of the pipeline. Criteria for class locations are given below:

Class 1	Off shore or 10 or fewer buildings.
Class 2	11-46 buildings.
Class 3	more than 46 buildings.
Class 4	Building with 4 or more stories above ground are prevalent.

A building is defined as a structure intended for human occupancy. Each apartment in an apartment building would be counted as a building for HCA determination.

The process for evaluating the pipeline for HCAs using class location is:

1. Maps are reviewed by office and field personnel searching for class locations or identified sites per the definition in 192.5. Areas are noted on the maps as possible HCA locations.

2. The Sheriff's Department(s) in the affected locations and the State Fire Marshal will be contacted by letter sent via U.S. Postal Service "certified mail return receipt requested" requesting assistance in identifying HCA's. Information to be included in the letter will be a statement outlining the purpose of the request, information on the definition of a "high consequence area," and a map showing the "pipeline corridor." Return receipts and Sheriff's Department(s) and State Fire Marshal replies will be maintained. All pertinent input received from the local authorities will be annotated on the maps. The maps along with any documents will be retained in the Pipeline Integrity Management file as documentation.

3. If a public official with safety or emergency response or planning responsibilities informs the company that they do not have the information to identify an identified site, the company will use other sources, as appropriate, to try and identify these sites. Other sources are:

    a) Visible markers – signs

    b) The site is licensed or registered by a Federal, State or local government agency

    c) The site is on a list (including on an internet web site) or map maintained by or available from a Federal, State or local government agency and available to the general public

4. Locations determined as possible HCAs will be verified in the field by BEPC personnel. This is accomplished by having the gas transmission pipeline locations verified by BEPC. The employee will drive each pipeline to verify location of the pipeline according to the pipeline markers, pinpoint pipeline location using GPS or line locators as necessary.

5. Sites identified on the maps as class 3 and 4 locations are verified by completion of a building count by BEPC personnel. "Identified Sites" in class 1 and 2 locations or buildings meeting the criteria as "Identified Sites" are reviewed using building counts or taking measurements to the buildings from the pipeline to determine if they are within the pipelines PIR. Buildings falling within 18 inches of the PIR distance will be re-measured, if there is a reason to believe the initial measurement may have some error introduced into it; i.e. obstacles that may affect

the accuracy of the distance obtained with a measuring tape. This may be the use of surveying equipment such as a distance meter (Total Station) or some other method that will ensure an accurate horizontal distance from the pipeline centerline to the building. Verified HCAs will be documented on the aerial map printouts and included on the GIS mapping system. Documentation of the occupancy levels of the building and distances to building will be documented.

Method 2: PIR

The process for evaluating the pipeline for HCAs using the pipeline PIR is:

1. Maps are reviewed by office and field personnel searching for identified sites. Areas are noted on the maps as possible HCA locations.

2. The Sheriff's Department(s) in the affected locations and the State Fire Marshal will be contacted by letter sent via U.S. Postal Service "certified mail return receipt requested" requesting assistance in identifying HCA's. Information to be included in the letter will be a statement outlining the purpose of the request, information on the definition of a "high consequence area," and a map showing the "pipeline corridor." Return receipts and Sheriff's Department(s) and State Fire Marshal replies will be maintained. All pertinent input received from the local authorities will be annotated on the maps. The maps along with any documents will be retained in the Pipeline Integrity Management file as documentation.

3. If a public official with safety or emergency response or planning responsibilities informs the company that they do not have the information to identify an identified site, the company will use other sources, as appropriate, to try and identify these sites. Other sources are:

    d) Visible markers – signs

    e) The site is licensed or registered by a Federal, State or local government agency

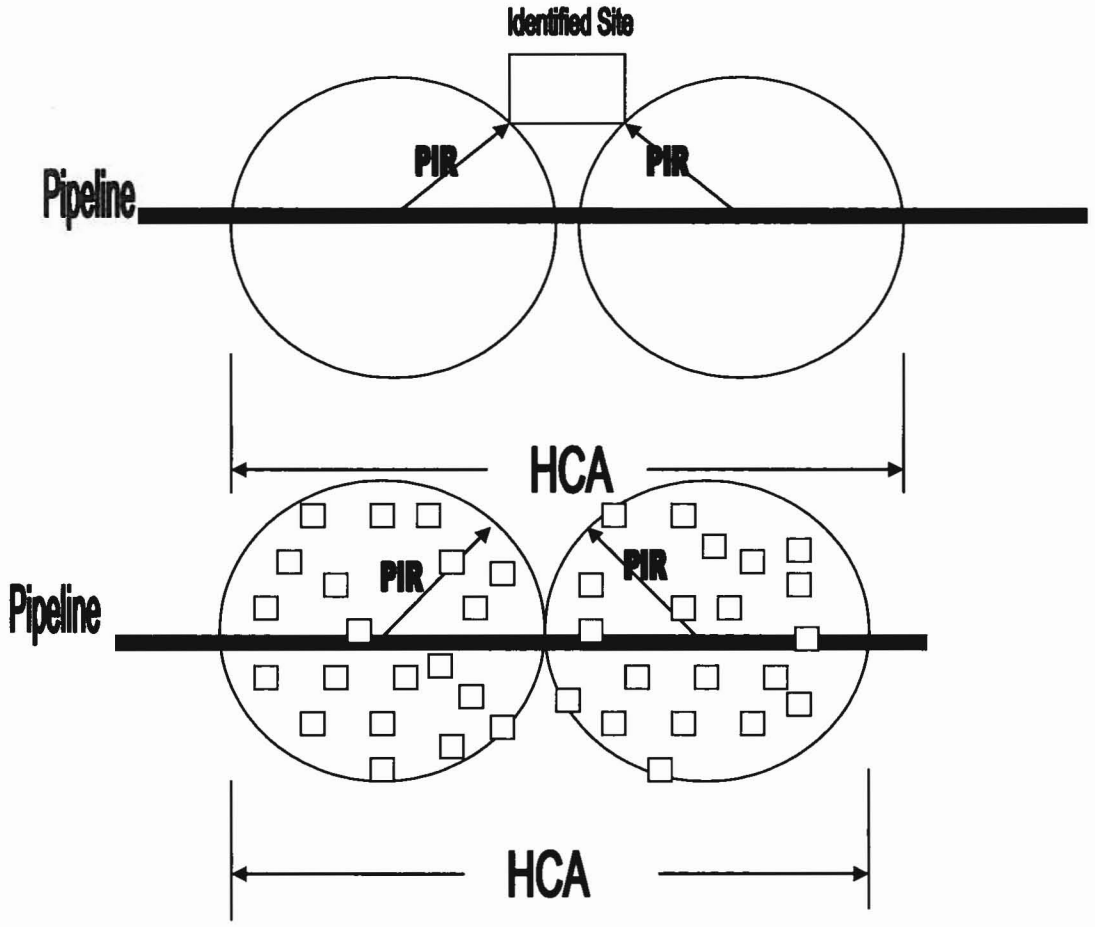
    f) The site is on a list (including on an internet web site) or map maintained by or available from a Federal, State or local government agency and available to the general public

4. Locations determined as possible HCAs will be verified in the field by BEPC personnel. This is accomplished by having the gas transmission pipeline locations verified by BEPC The employee will drive each pipeline to verify location of the pipeline according to the pipeline markers, pinpoint pipeline location using GPS or line locators as necessary

5. Measurements of the pipelines PIR are completed in the areas shown on the maps as potential "Identified Areas". Building counts and verification of "Identified

Sites" are completed along the pipeline. Measurement criteria are the same as in Method 1 above. Sites verified as HCAs are noted on the aerial maps and the extent of the HCA is located via stationing along the pipeline or use of sub-meter GPS.

The length of the HCA extends from the outermost edges of the first to the outermost edge of the last contiguous potential impact circle. The diagram below illustrates this. These locations will be located either by stationing along the pipeline or by the use of a sub-meter GPS unit. The HCA length can be adjusted as per 192.5 (c) for class 2, 3, and 4 areas



BEPC has chosen to apply method 2 for HCA determination. Method 1 can still be used as BEPC deems appropriate. BEPC does not have any pipelines with a PIR greater than 660 feet. Any changes to this status will be reflected in the IMP as they occur.

BEPC has the option of placing entire segments of pipeline into an HCA. If entire segments of pipeline are declared an HCA evaluation of the segment using method 1 or method 2 is not necessary.

Annual reviews of the transmission pipelines by company personnel will be conducted under the direction of the Generation Department. The review will verify past data and determine if any new HCAs have developed or existing HCAs have been altered due to changes in the pipeline system. Issues that will be considered include:

1) Changes in Maximum Allowable Operating Pressure (MAOP),
2) Pipeline Modifications affecting pipeline diameter,
3) Changes in the commodity transported in the pipeline,
4) Identification of new construction in the vicinity of the pipeline,
5) Changes in the use of existing buildings,
6) Installation of new pipeline,
7) Change in pipeline class location or class location boundary,
8) Pipeline reroutes
9) Corrections to erroneous pipeline center line data

The Generation Department will perform the above procedure annually on each transmission pipeline to discover any new "identified sites" located near the pipeline that would be considered an HCA. New HCA's will be incorporated into the baseline assessment plan within one (1) year of discovery as prescribed in 49 CFR 192.905. Baseline assessment will be conducted under the direction of the Generation Department on all newly identified high consequence areas within ten (10) years of identification as prescribed in 49 CFR 192.921 (f) and (g).

HCAs will be listed in Exhibit "A" of the IMP.

Exhibit A

No High Consequence Areas have been identified for the Groton Generation Station as of (Insert date of last survey for each pipeline).

No High Consequence Areas have been identified for the Deer Creek Station as of (Insert date of last survey for each pipeline).

Section 2
Threat Identification and Risk Assessment

Once an HCA is identified, a Threat Identification and Risk Analysis will be performed.

The first step in developing a risk assessment is identifying potential threats to integrity. These threats may be grouped into four (4) major classifications. The four main groups are:

a. Time-Dependent threats such as internal/external corrosion and Stress corrosion cracking.
b. Stable threats such as fabrication or construction defects.
c. Time-Independent threats such as third party damage and outside force.
d. Human Error.

The Threats to pipeline integrity are:

Time Dependent

- External Corrosion
- Internal Corrosion
- Stress Corrosion Cracking

Stable

- Manufacturing Related Defects - Manufacturing Threat
  - Defective pipe seam
  - Defective pipe
- Welding/Fabrication Related
  - Defective girth weld
  - Defective fabrication weld
  - Wrinkle bend or buckle
  - Stripped threads/broken pipe coupling failure
- Equipment
  - Gasket O-ring failure
  - Control/Relief equipment malfunction
  - Seal/pump packing failure
  - Miscellaneous

Time Independent

- Third Party/Mechanical Damage
  - Damage inflicted by 1st, 2nd, 3rd parties (instantaneous/immediate failure)
  - Previously damaged pipe (delayed failure mode)
  - Vandalism

- Incorrect Operations
  - Incorrect operational procedure

- Weather Related & Outside Force
  - Cold weather
  - Lighting
  - Heavy rains or floods
  - Earth Movements

To accomplish identification of potential threats, all data outlined in ASME B31.8S, Table 1, "Data Elements for Prescriptive Pipeline Integrity Program" shall be gathered. This information may be gathered from project Work Orders, maintenance and repair reports, leak survey reports and local employees that have "first-hand" knowledge of the covered pipeline (Subject Matter Experts).

The data elements are:

Attribute Data

Pipe wall thickness
Diameter
Seam type and joint factor
Manufacturer
Manufacturing Date
Material properties
Equipment properties

Construction

Date Installed
Bending method
Joining method, process & Inspection results
Depth of Cover
Crossings/casings
Pressure test
Field coating methods
Soil, backfill
Inspection reports
Cathodic Protection installed
Coating type

Operational

Gas Quality
Flow Rate
Normal maximum & minimum Operating pressures
Leak/failure history
Coating condition
CP system performance
Pipe Wall Temperature
Pipe Inspection Reports

OD/ID corrosion monitoring
Pressure fluctuations
Regulator/relief performance
Encroachments
Repairs
Vandalism
External Forces

Inspection

Pressure tests
In-line inspections
Bell Hole inspections
Geometry tool inspections
CP inspections [Close Material properties Interval Surveys (CSI)]
Coating condition inspections (DCVG)
Audits and reviews

A key element of the integrity management framework is the integration of all pertinent information when performing risk assessments. Such information can impact the understanding of important risks to a pipeline system. Risk Assessment (RA) is an analytical process by which BEPC will determine the types of adverse events or conditions that might impact a pipeline's integrity. It also determines the likelihood or probability of those events or conditions that will lead to loss of integrity, and the nature and severity of the consequences that might occur following a failure.

Risk is the mathematical product of the likelihood (probability) and the consequences of a failure, or both.

The output of this RA Section is to identify the location-specific events and/or conditions that could lead to a pipeline failure, and an understanding of the likelihood and consequences of an event. It will also include the nature and location of the most significant risks to the pipeline.

Managing pipeline integrity is an integrated and iterative process and this section provides for a continuous review of BEPC's threat identification and risk analysis process.

I. Risk Assessment Objectives

Risk assessment provides a measure that evaluates both the potential impact of different incident types and the likelihood that such events may occur. Risk results are used to identify locations for integrity assessments and resulting mitigative action. BEPC's RA plan will examine both primary risk factors (likelihood and consequences) to avoid focusing solely on the most visible or frequently occurring problems while ignoring potential events that could cause significantly greater damage. For application to BEPC's pipeline and facilities, the risk assessment plan has established the following objectives:

i. Prioritization of pipelines/segments for scheduling integrity assessments and mitigating action.
ii. Assessment of the benefits derived from mitigation actions.
iii. Determination of the most effective mitigation measures for the identified threats.
iv. Assessment of the integrity impact from modified inspection intervals.
v. Assessment of the use of or need for alternative inspection methodologies.
vi. More effective resource allocation.

II. Risk Assessment Approach Methodology

Risk Assessment methods can be applied based on the available data and the nature of the threats. BEPC's Risk Assessment (RA) process provides for an analytic method to utilize various data inputs thereby creating estimates to facilitate the decision making process.

A. Establish Risk Priority

The establishment of risk priorities will be determined by risk assessment methods used in conjunction with knowledgeable, experienced personnel (subject matter experts and people familiar with the facilities) that regularly review the data input, assumptions, and results of the risk assessment. The RA results shall be documented in BEPC's integrity management program.

An integral part of the risk assessment approach methodology is incorporation of additional data elements of changes to facility data. To ensure regular updates, BEPC's IMP provides for incorporation of the RA process into existing field reporting, engineering, and facility mapping processes along with incorporation of additional processes as required to maintain an effective IMP.

Organization of integrity assessments for pipeline segments will be based, in part, on risk value to be comprised of a number reflecting the overall likelihood of failure and a number reflecting the consequences. The multiplication of the relative likelihood and consequences provides BEPC with its relative risk for the segment, and a relative priority for its assessment.

B. Risk Assessment Approach

There are a number of risk assessment approaches presented in the ASME B31.8S document with each comprised of certain complexities, sophistication, and data requirements. BEPC based its RA plan primarily on the *Subject Matter Experts (SMEs)* approach. To strengthen its RA plan BEPC also is incorporating, in part, the *Relative Assessment Model*. The *Relative Assessment Model* builds on pipeline experiences, addressing the known threats that have historically impacted BEPC's pipeline operations. BEPC's Risk Assessment Approach model utilizes weighting factors for each major threat and consequences to provide sufficient data to meaningfully assess them.

The method of describing risk is comprised of the following:

$$Risk_i = P_i \times C_i \text{ for a single threat}$$

$$Risk = \Sigma_{i=1} (P_i \times C_i) \text{ for threat categories 1 to 9}$$

$$\text{Total Segment Risk} = P_i \times C_i + P_2 \times C_2 + \ldots\ldots + P_9 \times C_9$$

where

P = failure likelihood

C = failure consequence

1 to 9 = failure threat category (Refer to Table A for failure threat categories.)

Risk Weighting Factors

1-Low;

2-Medium Low;

3-Medium;

4-Medium High;

5-High

III. Risk Analysis

A. Risk Analysis Program

BEPC's Risk Analysis Program is based on the Prescriptive-based program and its associated re-inspection intervals and elements contained in the Non-mandatory Appendix A, of the ASME B31.8S manual as adopted by PHMSA.

B. Prescriptive-Based

The Prescriptive-based integrity management program will be used to prioritize each pipeline segment.

C. Risk Assessment Characteristics

1. Attributes
2. Resources
3. Operating/Mitigation History
4. Predictive Capability
5. Risk Confidence
6. Feedback
7. Documentation
8. "What If"
9. Weighting Factors
10. Structure
11. Segmentation

D. Risk Estimates

Application of any type of risk analysis methodology shall be considered as an element of continuous process. BEPC will use annual as its system-wide risk re-evaluation interval once an HCA is identified.

IV. Data Collection for Risk Assessment

A. Prioritization for Prescriptive-Based

Refer to Section III of BEPC's RA plan above.

V. Integrity Assessment and Mitigation

This section will be reviewed and further defined, as appropriate, at such time BEPC identifies a high risk segment. The action steps for future review will be as follows:

1. Generation Department will be responsible for developing and writing the Integrity Assessment and Mitigation section.
2. The section will be approved by the Vice President – Plant Operations.
3. The section will be in place prior to BEPC taking Integrity Assessment and Mitigation action that may affect the integrity of the identified pipe segment.
4. The section will include, among other pertinent identified elements, risk drivers for each high risk segment; recalculation of each segment's risk after integrity assessment and mitigation actions.

VI. Validation of Risk Analysis Results

A. Reassessment & Modification

Risk assessment shall be performed periodically within regular intervals, and when substantial changes occur to the pipeline. BEPC has established that its base RA re-evaluation will coincide with its annual review of its Emergency Procedures. The results of the RA re-evaluation shall be factored into future risk assessments, to assure that the analytical process reflects the latest understanding of the pipe condition.

B. Risk Validation Process

The risk validation process can be accomplished by performing or conducting inspections, examinations, and evaluations at locations indicated as either high risk or low risk to determine if the risk methods are correctly characterizing the risks.

Validation can also be achieved by considering other information regarding the condition of the pipeline segment and condition determined during maintenance activities or prior to remedial efforts.

Section 3
Baseline Assessment

Currently there are no High Consequence Areas (HCA) identified on either the Groton Generation Station or Deer Creek Station pipelines. Should any HCAs be identified in the future, a Baseline Assessment Plan will be developed.

A Baseline assessment plan will be written by the Generation Department within one (1) year of discovery for the first HCA. Additional HCAs will be added to the Baseline Assessment Plan within one (1) year of their discovery. Baseline assessments will be completed on newly identified High Consequence Areas within 10 years of discovery.

Baseline Assessment plan will include:

a. Identification of HCA (Name of facility, location, other identifying information)
b. Date of Discovery of HCA
c. Identification of all potential threats to the covered segment.
d. Assessment method selected for each covered segment
e. Schedule for completing assessment of covered segments,

Final approval of baseline assessment plan will be made by the Vice President - Plant Operations after consultation with appropriate BEPC personnel.

Section 4
Direct Assessment Plan

This Section will be developed "as needed" once an HCA and applicable threats are identified.

Section 5
Remediation

Upon discovery of a High Consequence Area and after completion of the "baseline assessment", all anomalies will be evaluated to determine if they may pose a threat to the pipeline. After the evaluation is completed, a determination will be made by the Generation Department to monitor, repair or replace each anomaly in accordance with Section 7, Table 4 of ASME B31.8S and 49 CFR 192.933 (d) within 180 days of discovery. This determination will be presented to Vice President - Plant Operations for final approval.

Section 6
Continuing Evaluation and Assessment

This Section will be developed once an HCA and applicable threats are identified.

Section 7
Confirmatory Direct Assessment

This Section will be developed "as needed" once an HCA and applicable threats are identified.

Section 8
Preventive and Mitigative Measures

Upon discovery of a High Consequence Area , the Generation Department will identify any additional Preventive and Mitigative measures based on identified threats and associated risk analysis in accordance with 49 CFR 192.935. These measures will include, but not be limited to, installation of automatic shutoff valves, remote controlled valves, installation of computerized monitoring and leak detection systems, replacing pipe segments with pipe of heavier wall thickness, additional training for response personnel, conducting emergency drills with local emergency responders, and additional inspection and maintenance programs.

BEPC's transmission lines operate above 30% Specified Minimum Yield Strength.

Per 49 CFR 192.935, BEPC will observe the following:

- Only personnel qualified under BEPC's Operator Qualification Plan will be used in any operation that could affect the integrity of the pipeline. These activities include locating, marking, excavation and direct supervision of personnel engaged in such activities.

- All transmission facilities will be included in "one-call" systems.

- Collect, in a central database, location specific excavation damage data that occurs in covered and non-covered segments and root-cause analysis to support identification of targeted additional preventative and mitigative measures in HCAs

- Groton Generation Station and Deer Creek Station operating personnel will insure that excavations near affected pipeline segments are monitored to insure that transmission facilities are not damaged during these activities. Should unreported excavations near affected transmission facilities be discovered "after-the-fact", a follow-up investigation shall be conducted under the direction of the Manager – Distributed Generation to determine if mechanical damage has occurred.

Section 9
Performance Plan

This Section will be developed once an HCA and applicable threats are identified.

Section 10
Recordkeeping

Records required to support this Integrity Management Plan will be maintained in the BEPC's Document Management System.

Section 11
Management of Change

Management of change is the process of insuring that the impact of any operating or equipment change made to the pipeline is adequately addressed in the integrity management plan.

Any change made to affected transmission pipeline segments owned or operated by BEPC will be analyzed and documented prior to the change. Documentation will include:

- Reason for the change.
- Threat Identification and Risk assessment.
- Analysis of the implications the change will have on the integrity of the affected segment. This analysis will include all technical, physical, procedural and organizational changes.
- Acquisition of work permits.
- Time limitations; weather related, work permit related, time the change will end (for temporary changes.)
- Identification of personnel making the change and their qualifications.

After the analysis is completed, the Vice President - Plant Operations will approve the change.

All changes will be communicated by the Vice President – Plant Operations to the Senior Vice President - Generation, BEPC as well as the Office of Pipeline Safety and the South Dakota Public Utilities Commission per 49 CFR 192.909.

Section 12
Quality Control Plan

The purpose of the Quality Control Plan section is to assure proper documentation, implementation, and maintenance of BEPC's IMP plan in such a manner as to be understood by personnel responsible for compliance with the sections contained herein. BEPC's Quality Control Plan (QCP) was formatted after the processes and procedures presented in Section 12 – Quality Control Plan of the ASME B31.8S.

A. Quality Control Activities

1. Documentation

As discussed throughout this Integrity Management Plan, information and data obtained to assure BEPC is effectively implementing its IMP plan shall be available in the Document Management System. Additionally, operating data for transmission lines, including HCA segments (once identified), will be retained in the Document Management System. The Generation Department shall have the overall responsibility to assure pertinent data sources for all related HCA pipeline segments found within BEPC are maintained.

The Generation Department shall maintain, the IMP, applicable reports and data documents pertaining to BEPC's transmission lines. Once an HCA is identified, the Generation Department shall also maintain the risk assessment results by HCA and additional data as identified in 49 CFR 192.947.

2. Responsibilities and Authorities

The Vice President - Plant Operations is responsible for the overall implementation and conduct of this plan. The Vice President – Plant Operations will provide all resources necessary for the Manager – Distributed Generation to effectively implement this plan.

The Manager – Distributed Generation is responsible for the day–to–day implementation of this plan. Unless identified otherwise, the Manager – Distributed Generation is responsible for the development, implementation, evaluation, recordkeeping and revision of all sections of the plan. The Manager – Distributed Generation will utilize subject matter experts to evaluate the existing data and recommend appropriate courses of action. Subject matter experts may include BEPC Headquarters personnel, BEPC Station personnel and Contract personnel who, by training or experience, possess the background, knowledge and experience to accurately evaluate the data. Further, the Manager – Distributed Generation will be responsible for insuring that all necessary plans are developed and implemented.

3. Results review interval

BEPC will annually re-evaluate the identification of HCAs. Once an HCA is identified, in addition, to reviewing the results of the HCA identification efforts and documentation, the integrity management plan and this QCP section will become part of the annual review and will include addressing any identified and applicable recommendations for improvements.

4. IMP personnel

BEPC desires to employ, or contract, competent personnel to perform all its business functions and its IMP plan is no exception. To assure such personnel are competent, aware of the IMP and all of its activities, and properly trained to execute the activities within their plan, documentation will be handled with the use of multiple sources. First, training records to assure properly trained field personnel, used for obtaining pertinent IMP pipeline data elements, is documented pursuant to BEPC's Operator Qualification (OQ) program, the OQ Plan modules and software. Second, training records for each employee are maintained at their work location. Third, the Generation Department will be involved in the annual IMP review through a variety of methods including an annual assessment report of BEPC's past year IMP activities. This report will identify any anomalies associated with IMP results, required personnel training, and recommendations for improvement to the process.

5. Monitoring the IMP

As stated throughout BEPC's IMP, including this QPC Section and Section 2- Threat Identification and Risk Assessment Set, BEPC will re-evaluate its compliance with the IMP rule on an annual basis.

6. Periodic Audits

The Generation Department shall have the responsibility to conduct an annual internal audit of BEPC's HCA identification efforts and associated documentation. Once an HCA is identified, the Generation Department shall have the responsibility to conduct periodic internal audits of BEPC's IMP and quality control plan. This shall occur at three year intervals starting from the date the first HCA is identified. Generation Department audit results and recommendations shall be submitted to the Vice President - Plant Operations for potential implementation (also refer to Section 9 – Performance Plan.)

7. Corrective Actions

To assure corrective actions for improving BEPC's IMP, as part of its annual review process, a written report shall be prepared and submitted to the Vice President – Plant Operations. This report shall contain statements and supporting documents on the effectiveness of implemented corrective actions since the last report, along with recommendations for future improvements. The Vice President - Plant Operations will review and present findings and recommendations for incorporation of the appropriate results into the Integrity Management Plan.

B. Outside Resources

When BEPC uses an outside resource for part of its IMP, such sources will operate under the direction of BEPC personnel responsible for compliance under this IMP and appropriate documents shall be maintained.

Section 13
Communication Plan

BEPC's Communication with external entities shall be performed in accordance with the Communications Plan established under RP 1162.

The Integrity Management Plan will be presented to the Vice President – Plant Operations by the Manager - Distributed Generation. A completed "attendance" form will be retained by the Manager – Distributed Generation after the presentation is completed. This procedure will be utilized for all changes to the Integrity Management Plan and will be completed within 60 days of the change. At the discretion of the Manager – Distributed Generation, changes may be presented in electronic mail format.

All safety concerns raised by state and federal regulators will be evaluated by the Generation Department. These concerns will be incorporated into the Integrity Management Plan by the Generation Department and changes will be communicated to the Vice President – Plant Operations and applicable operating personnel using the above procedure.

Section 14
Regulatory Submission Procedures

Reports shall be submitted, as required by 49 CFR 192.945.

Upon request, the Generation Department will provide a copy of the Risk Assessments and/or Integrity Management Plan on behalf of BEPC in electronic format to the Office of Pipeline Safety in Washington, DC or the South Dakota Public Utilities Commission. This submission will be made by copying the requested information onto a CD and mailing, via certified US Mail, to the appropriate agency. When requested, supporting documentation will be provided in "hard copy" format.

Mailing addresses for the appropriate agencies are:

Information Resources Manager
Office of Pipeline Safety
Pipeline and Hazardous Materials Safety Administration
U.S. Department of Transportation
PHP-10
1200 New Jersey Avenue S.E.
Washington, DC 20590

SD Public Utilities Commission
State Capitol Bldg.
500 E. Capitol
Pierre, SD 57501
ATTN: Mr. Nathan Solem

In addition BEPC will submit semi-annual "performance measure" reports in accordance with 192.945(a) indicating that there are no HCAs on its system,

Section 15
Environmental and Safety Procedures

Environmental and safety concerns will be addressed during the assessment stages. Once site specific conditions are identified, and prior to writing assessment plans, the Generation Department will contact the Manager - Environmental Services and the Safety and Occupational Health Administrator for guidance. This guidance will be included in the assessment plans and will be discussed in detail with personnel performing the assessment.