

**MASTER METER  
DISTRIBUTION INTEGRITY MANAGEMENT PLAN**

Facility Name: \_\_\_\_\_

Address: \_\_\_\_\_

**DEFINITIONS:**

***Building*** — Any structure intended for supporting or sheltering any occupancy.

***Excavation damage*** — Any impact that results in the need to repair or replace an underground facility due to a weakening or the partial or complete destruction, of the facility, including, but not limited to, the protective coating, lateral support, cathodic protection, or the housing for the line device or facility.

***Hazardous leak*** — A leak that represents an existing or probable hazard to persons or property and requires immediate repair or continuous action until the conditions are no longer hazardous.

***Non hazardous leak*** - Any above ground leak, other than one on a pressure regulator or relief device, that poses no existing or probable threat to life, property or health and that can be eliminated by maintenance such as, lubrication, adjustment, tightening or reassembling of any pipe or component and does not require the shutdown of any part of the distribution system (main or service line) upstream of a service line valve to complete the repair.

**KNOWLEDGE OF THE DISTRIBUTION SYSTEM**

This plan was developed based on the design, construction, operation and maintenance records, including but not limited to; incident and leak history, corrosion control records, continuing surveillance records, patrolling records, maintenance history, and excavation damage experience, as well as the judgment and knowledge of our employees. In the event there is a gap in information due to missing, inaccurate, or incomplete records, we will review for accuracy the Annual Reports and prior inspection reports that are maintained by the New Mexico Public Regulation Commission, Office of Pipeline Safety Bureau (PSB) and gain additional knowledge over time through our normal activities conducted on the pipeline (for example, design, construction, operations, maintenance, and/or repair activities).

This Plan will be reviewed at a minimum of every 5 years for the purpose of continually refining and improving this Plan.

Records for all piping systems installed after the effective date of this plan shall be captured and retained. This will include the date and location where all new and/or repaired piping and appurtenances are installed and the material of which they are constructed.

**DISTRIBUTION SYSTEM OVERVIEW:**

The distribution system consists of the following:

TYPE MATERIAL	FT ABOVE GROUND	FT BELOW GROUND	TOTAL FEET
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

**PLAN IMPLEMENTATION:**

Implementation of the required actions listed in this Plan will be the responsibility of:

(Title only)\_\_\_\_\_ and/or (Title only)\_\_\_\_\_

**IDENTIFICATION OF THREATS:**

We have used all reasonably available information to identify existing and potential threats on our Master Meter System including:

- Corrosion (both underground and atmospheric)
- Natural Forces (flooding, fire, soil subsidence or movement, snow/ice damage)
- Excavation Damage
- Other Outside Force Damage (vehicle damage, trailer pull out)
- Material or Weld Failure (including fusion, solvent, and mechanical joint failures)
- Equipment Failure
- Incorrect Operation
- Other Threats

**RISK RANKING:**

The risk ranks for each identified threat is based on the piping material and leak history from the previous 5 years at our facility.

**CONSEQUENCE RANKING:**

The PSB has prioritized all Master Meter Systems in the State of New Mexico based on the following criteria:

- All priority one (1) facilities (schools, churches, hospitals, day care centers, prisons) will be assigned a consequence number of 1.25, due to these locations being more difficult to safely evacuate in the event of an emergency.
- All priority two (2) facilities (apartments, mobile home parks, businesses/industrial plants, etc.) will be assigned a consequence number of 1, since these facilities are easier to evacuate in the event of an emergency.

**Our facility is a Priority \_\_\_\_\_ which will have a consequence rating of \_\_\_\_\_.**

Numerous variables have been taken into Consideration and it has been determined that any risk would have system-wide consequences.

**THREAT ASSESSMENT:**

Our threat assessment will identify those threats needing possible further consideration of additional actions based on the probability of each threat using the following criteria:

- 0 (low risk)
- 1 (moderately low risk)
- 2 (medium risk)
- 3 (high risk)

**THREAT ASSESSEIVIENT CHART (check each yes box that applies)**

THREAT CATEGORY	PIPING TYPE	DISCRIPTION OF THREAT	THREAT PROBABILITY SCORE	YES
Leak Failure	All	Five (5) or more leaks in the previous five (5) years of any cause.	3	
Other threats	An	Unknown; pipe material, fittings, joints, equipment, history	3	
Corrosion	Underground steel	No underground leaks in previous five (5) years AND all annual CP survey readings have been adequate for the previous five (5) years.	1	
Corrosion	Underground steel	At least one (1) but less than five (5) underground leaks in the previous 5 years <b>OR</b> annual CP survey readings have not been adequate and required remedial action was taken.	2	
Corrosion	Aboveground steel	No leaks in the previous five (5) years	0	
Corrosion	Aboveground steel	At least one (1) but less than five (5) leaks in the previous five (5) years.	1	
Internal corrosion	All	No indications in the previous five (5) years	0	
Internal corrosion	All	Any indications in the previous five (5) years	1	
Material failure	PVC plastic	All underground PVC plastic, regardless of age or leak history.	2	
Material failure	PE plastic	No underground leaks in previous five (5) years	0	
Material failure	PE plastic	At least one underground leak in the previous five (5) years	2	
Material failure	PE plastic	No underground leaks in the previous five (5) years, <b>AND</b> system has mechanical joints	1	
Material failure	PE plastic	At least one (1) but less than five (5) underground leaks in the previous five (5) years <b>AND</b> system has mechanical joints.	2	
Excavation	All underground	Any excavation damages to piping, regardless of material in the previous five (5) years	2	
Excavation	All underground	No excavation damages on the piping system in the previous five (5) years	1	
Natural forces	All aboveground	Areas where natural forces have caused damage or leaks in the previous five (5) years. (ex. Snow accumulation, flooding, lightening strikes, soil	1	
Natural forces	All aboveground	All other areas where natural forces have not caused damage or leaks in the previous five (5) years.	0	
Other outside forces	All aboveground	No damages or leaks caused by outside forces in the previous five (5) years	1	
Other outside forces	All aboveground	At least one (1) but less than five (5) leaks and/or damage caused by outside force in the previous five (5) years	2	
Equipment failure	All aboveground	No leaks in the previous five (5) years.	1	
Equipment failure	All aboveground	At least one (1) but less than five (5) leaks in the previous five (5) years where defective equipment was replaced or repaired.	2	
Incorrect operation	All	No incidents in previous five (5) years	0	
Incorrect operation	All	Any incorrect operation that results in a State reportable incident as defined in our Emergency plan,	2	
Other threats	All	Incident where emergency event resulted in a State reportable incident as defined in our Emergency plan.	1	

TOTAL THREAT

SCORE \_\_\_\_\_ (add the total score of all categories checked yes)

## OVERALL RISK RANKING

The overall risk ranking is determined by the following steps:

- Take the total threat score that you determined from the threat assessment chart and multiply the threat score by the consequence score (1,25 for priority 1; 1,0 for priority 2).
- Then divide the number determined in the step above by the total number of threat categories identified that were checked (number of categories checked "yes" in the threat assessment chart), This is your final overall risk score for your system,

Probability is the total threat score derived from the threat assessment chart.

Consequence is based on the priority number given by the OPS.

Risks are all system wide and we have validated the results of the threat assessment and risk evaluation,

\_\_\_\_\_ x \_\_\_\_\_ ÷ \_\_\_\_\_ = \_\_\_\_\_ Date: \_\_\_\_\_  
Probability Consequence Number of Risk Rank  
Categories Score

\_\_\_\_\_ x \_\_\_\_\_ ÷ \_\_\_\_\_ = \_\_\_\_\_ Date: \_\_\_\_\_  
Probability Consequence Number of Risk Rank  
Categories Score

\_\_\_\_\_ x \_\_\_\_\_ ÷ \_\_\_\_\_ = \_\_\_\_\_ Date: \_\_\_\_\_  
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\_\_\_\_\_ x \_\_\_\_\_ ÷ \_\_\_\_\_ = \_\_\_\_\_ Date: \_\_\_\_\_  
Probability Consequence Number of Risk Rank  
Categories Score

\_\_\_\_\_ x \_\_\_\_\_ ÷ \_\_\_\_\_ = \_\_\_\_\_ Date: \_\_\_\_\_  
Probability Consequence Number of Risk Rank  
Categories Score

**BASED ON THE OVERALL RISK RANKING SCORE, THE FOLLOWING ACTIONS WILL BE TAKEN;**

**Risk score less than or equal to 1.5** — Monitor system; no additional actions required

**Risk score greater than 1.5 but less than 2.5** —Identify threat, periodically monitor, plan and schedule remedial action to be taken to mitigate risk(s) and provide a written plan to PSB within 30 days for approval.

**Risk score 2.5 or greater** — Identify threat, continuously monitor, plan and schedule remedial action to be taken to mitigate risk(s) and provide a written plan to OPS within 30 days for approval. •

**MANDATORY AND RISK BASED; ADDITIONAL ACTIONS, GENERAL:**

To reduce risk of the threats identified by our threat assessment, the following additional actions above and beyond the minimum requirements of CFR Part 192 shall be implemented.

- Leak surveys shall be conducted once each calendar year not exceeding 15 months;
- Odorant sniff tests shall be conducted 4 times a year;
- Minimum criteria that will be used for determining adequate cathodic protection is -0.850 volts;
- New construction and repair of pipelines shall be inspected by the PSB;
- System maps shall be maintained for the life of the system;
- All underground and hazardous leaks shall be repaired immediately upon discovery;
- All other leaks shall either be repaired upon discovery, or classified and scheduled for repair in accordance with ASME G-11 (1983 edition);
- Underground pipelines discovered under a "building" (as defined in this plan) shall be relocated or gas service will be discontinued or the building shall be relocated. New pipelines shall not be installed under any building;
- All plastic piping shall be installed with a minimum 14 gauge coated and conductive tracer wire;
- All pipelines shall be installed with six (6) inches of sandy type bedding and shading to reduce damages to pipelines and pipe coating;
- The PSB shall be notified at least thirty (30) days prior to any construction on the pipeline system and shall be provided copies of all construction plans for their review;
- All failures shall be investigated to determine their cause and to prevent a recurrence. If the cause of any failure cannot be determined, laboratory testing shall be conducted
- We shall track the number of leaks and submit an Annual Report by March 15<sup>th</sup> of each year to the PSB with the number of leaks on the pipeline system and their cause from the previous calendar year.

**MANDATORY PERFORMANCE MEASURES**

We will monitor and record, as a performance measure, the number of leaks eliminated and/or repaired on our pipeline system and the causes of each leak.

## **PERIODIC EVALUATION AND IMPROVEMENT**

Re-evaluation of this Plan shall occur anytime there are events or changes to the pipeline system that may change the identified risks of failure,

A complete re-evaluation of this Plan will be conducted no less than every 5 years. Trends in each of the performance measures listed in the previous section will be reviewed during the re-evaluation. If any performance measure indicates that any of the additional action taken is not effective in reducing the risk it is intended to address, we will consider implementing additional actions to address that risk.

Any changes to this plan will be made available to appropriate operator personnel immediately and a copy submitted to the PSB within 30 days of the effective date.

## **RECORD KEEPING**

The following records must be maintained for a minimum of 10 years.

- This Plan including any superseding plans;
- Copies of previous written DIMP Plans;
- Records of data required to be collected to calculate performance measures;
- Records necessary to show implementation and compliance of this Plan.
- Records for all piping systems installed after the effective date of this plan, including the date and location where all new and/or repaired piping and appurtenances are installed and the material of which they were constructed.

**MASTER METER  
DISTRIBUTION INTEGRITY MANAGEMENT PLAN  
(DIMP)  
PROCEDURES**

The following procedures are intended to serve as a guideline to assist staff in understanding and accurately out our distribution integrity management plan. In order for this plan to be effective, it is vital that all personnel responsible for the implementation of this plan must understand the information contained in this plan and implement the action criterion that is detailed within this plan.

**FACILITY NAME AND ADDRESS:**

As with the information contained within our operations and maintenance manual, this plan is not in effect until all pertinent information is filled in by the person(s) who are responsible for the operations and maintenance of our gas pipeline system.

**DEFINITIONS:**

Definitions are provided to assist personnel in evaluating our gas pipeline system.

**KNOWLEDGE OF THE DISTRIBUTION SYSTEM:**

The purpose of this section is to assist personnel to gain knowledge of our gas pipeline system. It is the intent of our DIMP plan to assure that we, as the operator, know and understand the risks associated with the operation of our gas pipeline system. This section lists several resources available to personnel to acquire the necessary knowledge.

**DISTRIBUTION SYSTEM OVERVIEW:**

This section provides an overview of our gas pipeline system and also provides documentation to demonstrate that we have acceptable knowledge of our system. In addition, this section provides valuable information that can be used by personnel to assure a smooth transition from staff to staff. Personnel shall review and transfer the information from our current operations and maintenance plan into this section of our plan. Information that is not available in our manual-maybe found on our annual report that is filed each year with the NMPRC, PSB. In the event that necessary information is not available, personnel will be required to determine the piping type and approximate total footage by whatever means possible, including dig and inspect, if needed, Personnel must identify additional information needed and provide a plan for gaining knowledge over time through normal activities conducted on the pipeline (for example, design, construction, operations or maintenance activities)

**PLAN IMPLEMENTATION:**

List the position (job title) of the person(s) who will be responsible for the maintenance and implementation of this DIMP plan, not the name of the person.

**IDENTIFICATION OF THREATS:**

This section lists the most common threats associated with our master meter system. It is our responsibility as an operator to determine the threats that are applicable to our gas system. If there are any other specific threats other than those listed in this section that you may believe apply to our system, we shall also evaluate the specific threat(s).

**RISK RANKING:**

Each threat has an assigned risk ranking score. Risk is determined by the type of piping material in our system (steel and/or plastic), and the leak history for the previous 5 years.

**CONSEQUENCE RANKING:**

Based upon our priority as determined by the NMPRC, PSB our consequence rank will be entered on the consequence line in this section of our DIMP plan.

**THREAT ASSESSMENT:**

This section identifies various threats to our pipeline system. Each threat shall be given a score that is based on the piping material and the system leak history for the previous 5 years. The scores range from 0 (low risk) to 3 (high risk).

**THREAT ASSESSMENT CHART:**

Personnel must evaluate each threat to determine if it is applicable to our system; check each box that applies.

Once all the threats have been evaluated and checked, you must add up the scores for each threat checked.

**NOTE: If we do not know the material or footages of piping in our system; or if we have experienced, five (5) or more hazardous leaks on our system for any reason in the previous five (5) years, our threat probability score will be 3 with only one threat category checked as applicable.**

**OVERALL RISK RANKING:**

The overall risk ranking shall be determined by using the following steps:

Take the total threat score that you determined from the threat assessment chart and multiply the threat score by the consequence score (1.25 for priority 1; 1,0 for priority 2).

Then divide the number determined in the step above by the total number of threat categories identified that were checked (number of categories checked "yes" in the threat assessment chart). This is our final overall risk score for our system.

Each time we evaluate our overall risk ranking we must include the date that each risk ranking was determined.

**BASED ON RISK RANKING SCORE THE FOLLOWING ACTIONS WILL BE TAKEN:**

The section provides criteria for additional actions to be taken based on our overall system risk ranking. If the overall risk ranking is 1.5 or higher, we will identify the threat(s) that need to be corrected monitor our system and submit a written plan to the New Mexico Public Regulation Commission's Office of Pipeline Safety Bureau for evaluation within 30 days, If the overall risk score is less than 1.5, then no additional actions, other than normal operation and maintenance activities and system monitoring, shall be taken.

**MANDATORY PERFORMANCE MEASURES:**

Keep all written records for each leak that is located and repaired on your system. The written record must identify information about the cause of each leak that was found and repaired. Each leak shall be included on our annual report.

**PERIODIC EVALUATION AND IMPROVEMENT:**

Anytime there are changes to our system (new piping installations, replacements, etc.) or an emergency event as defined in our emergency plan, we shall conduct a re-evaluation of the risks to our system based on incidents or changes. We shall use a new threat assessment chart and recalculate our risk ranking as necessary.

In the event that there are no changes or events on our gas pipeline system, we, as the operator will re-evaluate this plan at least once every 5 years. If we determine that any additional actions may not be effectively reducing the risk on our system, personnel will be responsible to determine if any additional actions will be needed to meet the objectives of this plan.

**RECORD KEEPING:**

All written records shall be kept for at least 10 years to demonstrate our plan is being implemented and followed,