

Redacted

- (c) Valve Failure – This threat may occur when valves fail to open or close on command, when component failure allows a bleed-through condition, leakage emanating from the body of the valve that cannot be remediated by repacking seals or greasing the valve.
- (d) Grease/Flush/Packing – This threat may occur when leakage emanates from the seals of a valve. The typical leak associated with this threat may be remediated by repacking or greasing the valve without replacing any parts.
- (e) Doping/ Caulking/ O-ring– This threat category includes leaks associated with threaded connections for which the proximate root cause of failure is identified as the pipe dope, caulking, O-ring, or other similar sealing materials. The typical leak associated with this threat category may be remediated by tightening or re-doping the threaded connection.
- (f) Other Equipment Failure – This threat may exist due to failures on compressors, meters, or regulator stations where the failure resulted from a faulty component not listed above (such as nipples, flanges, valve connections, line pipe collars, etc).

6.1.7 Incorrect Operations

Incorrect Operation leaks result from inadequate procedures or safety practices, or failure to follow correct procedures, or other operator error. It includes leaks due to improper valve selection or operation, inadvertent overpressurization, or improper selection or installation of equipment (source: PHMSA instructions for Form 7100.1-1).

Should a minor threat under Incorrect Operations be found to be significant, additional detail pertaining to that minor threat will be reviewed during the DIMP Steering Team annual review. Data to support the review will be obtained through the Company's Facility Failure Report process (refer to GS 1652.010 "Investigation of Failures"). Should the additional detail yield a new minor threat, the minor threat will be added to Table B-1. The results of that review will be documented on the 10-1 form.

- (a) Loose Connection – This threat category includes loose connections that are known to be due to human error.
- (b) Inadequate Procedures / Procedures Not Followed – This threat category includes failure to follow procedures by employees or inadequate/poorly written operating procedures.
- (c) Stripped Threads – This threat occurs as a result of failed threaded connections resulting from stripped threads.
- (d) Cross Bore – Cross bores are defined as an intersection of an existing underground utility or underground structure by a second utility installed by trenchless technology that results in direct contact between the transactions of the utilities that compromises the integrity of either utility or underground structure.
- (e) Other Operator Error – This threat may exist due to other errors made by the operator or its contractor not listed above.

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6.1.8 Other

- (a) Other – This threat category is reserved for threats that are known but cannot be attributed to threats that have been previously described in this Section. The DIMP Steering Team may use this category for leaks or failures of particular interest, in order for the situations to not get lost in other threat categories (e.g. electrostatic pinholing, insect damage).
- (b) Replace in lieu of Repair – This threat category includes leak repair situations where the asset is replaced without pinpointing the leak (e.g. abandoning a service line and running a new one). In these situations, the leaking materials may remain buried and, thus, unavailable for failure investigation.

6.2 System Segmentation into Assets

The Company has subdivided the distribution system into assets with similar characteristics and for which similar actions likely would be effective in reducing risk. Assets are categorized in a multi-level schema, with a major asset category (e.g. body of pipe, plastic fittings, steel fittings, etc.) and one or more minor categories or attributes. When identifications for multiple levels are provided together, the combination will simply be referred to as “asset.”

The system segmentation into assets is as follows:

6.2.1 Body of Pipe

Pipe is segmented into a multi-level schema as follows:

Firstly, by function:

- (a) Main
- (b) Service

Secondly, by physical characteristics:

- (a) Steel – Below Ground
- (b) Steel Treated – Below Ground
- (c) Steel/Steel Treated – Above Ground
- (d) Plastic/Plastic Insert
- (e) Cast Iron
- (f) Wrought iron
- (g) Copper
- (h) Other

Thirdly, below ground steel is segmented as cathodically-protected or not

- (a) Protected
- (b) Unprotected

6.2.2 Steel and Plastic Fittings

Firstly, by material type:

- (a) Steel
- (b) Plastic