

distribution system

B3.18 • Pipeline age

B3.19 • Pipeline realignment

B3.20 • Plans and procedures

B3.21 • Protection of pipeline employees

B3.22 • Railroad rights-of-way

B3.23 • Records and reports

B3.23.A —Annual

B3.23.B —Incident

B3.24 • Reduced operating staff

B3.25 • Repairs/rehabilitation

B3.25.A —Casing shorts

B3.25.B —Cast iron pipe

B3.25.B.1 >Aging

B3.25.B.2 >Graphitization

B3.25.B.3 >Movement

B3.25.C —Pipe support during systems

B3.26 • Small gas distribution systems

B3.27 • Training

B3.28 • Underground utility location

B3.29 • Underwater hazards to navigation

B4 CORROSION ISSUES CONTRIBUTING TO THE PROBABILITY OF ACCIDENT OCCURRENCE DUE TO:

or DUE TO LACK OF:

or DUE TO INADEQUATE:

B4.1 • Atmospheric

B4.2 • External

B4.2.A —Bare steel pipe

B4.2.B —Cathodic protection

B4.2.B.1 >Inconsistent regulations

B4.2.B.2 >Test points

B4.2.B.3 >Surveys

B4.2.C —Coating

B4.2.C.1 >Condition

B4.3 • Internal

B4.4 • Tank bottom

B5 OUTSIDE FORCE DAMAGE TO BURIED PIPELINES ISSUES CONTRIBUTING TO THE PROBABILITY OF ACCIDENT OCCURRENCE DUE TO:

or DUE TO LACK OF:

or DUE TO INADEQUATE:

B5.1 • Digging with power mechanical equipment instead of hand digging in close proximity to facilities

B5.2 • Natural forces

B5.3 • Operator personnel

B5.3.A —Pumping stations

B5.4 • Public activity

B5.4.A —Gas distribution facilities

B5.5 • Third party operations

B5.5.A —Mandatory state one-call system

B5.5.B —Universal/uniform one-call system

B5.5.C —Statutory one-call enforcement authority

B5.5.D —Without using available one-call system

B5.5.E —One-call system public

education

B5.5.F —While exempt from available one-call systems

B5.5.G —Incorrect operator one-call marks

B5.5.H —Ignoring one-call marks

B5.5.I —One-call marks are altered/removed

B5.5.J —Violation of one-call laws (inadequate penalties/enforcement)

B5.5.K —Incorrect construction marks

B5.5.L —Pipeline markers are inadequate

B5.5.M —Public right-of-way

B5.6 • Unreported or unrecognized damage

B5.7 • Vandalism or sabotage

B6 DESIGN ISSUES CONTRIBUTING TO THE CONSEQUENCES OF ACCIDENTS THAT OCCUR DUE TO:

or DUE TO LACK OF:

or DUE TO INADEQUATE:

B6.1 • Allowable maximum operating pressure

B6.1.A —High risk areas

B6.2 • HVL facilities

B6.3 • Proximity to inhabited buildings

B6.4 • Uncontrolled leaks

B6.4.A —Service lines

B6.5 • Valve remote control

B6.6 • Valve location

B7 CONSTRUCTION ISSUES CONTRIBUTING TO THE CONSEQUENCES OF ACCIDENTS THAT OCCUR DUE TO:

or DUE TO LACK OF:

or DUE TO INADEQUATE:

B7.1 • Environmental damage

B8 OPERATIONS AND MAINTENANCE ISSUES CONTRIBUTING TO THE CONSEQUENCES OF ACCIDENTS THAT OCCUR DUE TO:

or DUE TO LACK OF:

or DUE TO INADEQUATE:

B8.1 • Allowable maximum operating pressure

B8.1.A —High risk areas

B8.2 • Check valve malfunction

B8.3 • Emergency response

B8.3.A —Environmentally sensitive areas

B8.3.A.1 >Definition

B8.3.B —Highly populated areas

B8.3.C —Water supplies

B8.4 • Hazardous concentrations of hydrogen sulfide

B8.5 • HVL facilities

B8.6 • Leaks

B8.6.A —Undetected, in Service lines

B8.6.B —Unrecognized

B8.6.B.1 —During unsteady operations

B8.7 • Protection of pipeline employees

B9 CORROSION ISSUES CONTRIBUTING TO THE CONSEQUENCES OF ACCIDENTS THAT OCCUR DUE TO:

or DUE TO LACK OF:

or DUE TO INADEQUATE:

The issues received were not appropriate for this category. The responder may submit issues and solutions for this category.

B10 OUTSIDE FORCE ISSUES CONTRIBUTING TO THE CONSEQUENCES OF ACCIDENTS THAT OCCUR DUE TO:

or DUE TO LACK OF:

or DUE TO INADEQUATE:

The issues received were not appropriate for this category. The responder may submit issues and solutions for this category.

B11 ISSUES THAT AFFECT OPS'S AND INDUSTRY'S ABILITY TO IDENTIFY AND MANAGE RISKS DUE TO:

or DUE TO LACK OF:

or DUE TO INADEQUATE:

B11.1 • Accident investigations

B11.1.A —Confidentiality of information

B11.2 • Conflicting responsibilities among conformance authorities

B11.2.A —Interstate pipelines

B11.2.B —Marine transfer pipelines

B11.2.C —Setback requirements

B11.3 • Federal/State

B11.3.A —Accident investigation coordination

B11.3.B —Facility inspection

B11.3.B.1 >frequency

B11.3.B.2 >of master meter systems

B11.3.C —Inspector

B11.3.C.1 >competence

B11.3.C.2 >corrosion control training

B11.3.C.3 >staff size

B11.3.D —Non-uniform regulatory enforcement

B11.4 • Fines and penalties

B11.5 • Incident reporting thresholds

B11.6 • Maps, records and reports

B11.6.A —Analysis

B11.6.B —Annual

B11.6.C —Incident

B11.6.D —High risk areas

B11.7 • Public education

B11.8 • Regulation ambiguities

B11.9 • State highway non-uniformity in design requirements

B11.10 • Unregulated

B11.10.A —Gathering pipelines

B11.10.B —Low stress pipelines

B11.10.C —Underground storage

Section C. Solution Statement

A SOLUTION is one of a number of remedies to one or more issues from