Form for a Solution Statement

To aid in processing solution statements, OPS suggests a standard format. Section A information may be provided one time for all solutions submitted from one responder. A solution statement should contain:

A. The identification of the responder per Section A below.

B. The B-code designation of the issue being addressed, per Section B below.

C. The complete proposed solution description. See Section C below for discussion of a solution statement.

D. The type of solution that is being proposed, per Section D below.

E. The kind of facility affected, selected from Section E below.

As a guide for preparing solution statements, the following examples are provided.

Example 1.

A. Responder identification

B. B4.3 (Internal Corrosion)

C. A regulation requiring the periodic use of smart pigs

D. D3

E. E2 (Liquid transportation lines) Example 2.

A. Responder identification

B. B4.3 (Internal Corrosion)

C. Financial support of research to improve smart pigs

D. D9 (Support research and development)

E. E2 (Liquid transportation lines)

Section A. Responder Identification

Responder name

Responder position or title A2

A3Responder organization Responder organization type (Operators indicate all applicable)

A4a Operator, hazardous liquid, gathering

A4b Operator, hazardous liquid, transportation

A4c Operator, gas, gathering

Operator, gas, transmission A4d

Operator, gas, distribution

A4f Operator, LNG facility

A4g Pipeline industry association

A4h Pipeline contractor

A4i Pipeline supplier

A4i Environmental organization

A4k Consumer safety organization

A4l Government, federal

A4m Government, state

Government, municipal A4n

A4o Public

Other (Please specify) A4p

A5 Address

A6 Contact name (If other than responder)

Α7 Contact phone number

Contact facsimile number

Section B. Consolidated Issues List

The following consolidated issues list represents the key elements of the issues

that the respondents provided to RSPA's request for information, 58 FR 51402; October 1, 1993. OPS analyzed over 400 responses, converted proposed solution statements into issues statements, and to an appropriate degree, consolidated variations of similar issue statements. In preparing proposals for solutions, respondents are encouraged to give their widest interpretation to any of the 189 issues listed below. A solution statement may apply to more than one issue provided each issue being addressed is listed using the designated issue code (i.e., B1, B2, etc).

The consolidated list is organized into five categories of issues contributing to the probability of pipeline accident occurrence; five categories of issues contributing to the consequence of pipeline accidents and one category that includes issues directed at identifying and managing risks. The five categories for probability and consequence are, Design, Construction, Operations and Maintenance, Corrosion and Outside Force.

B1 DESIGN ISSUES CONTRIBUTING TO THE PROBABILITY OF ACCIDENT OCCURRENCE DUE TO:

or DUE TO LACK OF:

or DUE TO INADEQUATE:

B1.1 • Allowable maximum operating pressure

B1.2 • Breakout tanks

B1.3 • Materials selection

B1.3.A —Steel pipe toughness

B1.3.B —Steel pipe weldability

B1.4 • Obsolescent technology

B1.5 • Obstacles to instrumented internal inspection

Offshore pipelines

 Railroad rights-of-way B1.7

B1.8 • Thin wall, high strength pipe

B1.9 • Underwater hazards to navigation

B1.10 • Valve definitions

B2 CONSTRUCTION ISSUES CONTRIBUTING TO THE PROBABILITY OF ACCIDENT OCCURRENCE DUE TO;

or DUE TO LACK OF;

or DUE TO INADEQUATE;

B2.1 • Hydrostatic testing

B2.1.A —Errors B2.1.B —Procedures

B2.2 • Inspection

B2.2.A —for errors and flaws

B2.2.B —of girth welds

B2.2.C —for rock impingement

B2.2.D —of welded split sleeves

B2.3 • Maps and records

B2.4 • Material and equipment noncompliance

B2.4.A —pre-1970 (low frequency) ERW pipe

B2.4.B railroad transportation fatigue cracks

B2.5 • Plastic pipe electrofusion joints

B2.6 • Plastic pipe fusion joints

B2.6.A —dissimilar materials

B2.7 • Specifications

B2.8 • Tracer wire wraps around plastic pipe

B3 OPERATIONS AND MAINTENANCE ISSUES CONTRIBUTING TO THE PROBABILITY OF ACCIDENT OCCURRENCE DUE TO:

or DUE TO LACK OF:

or DUE TO INADEQUATE:

B3.1 • Accident investigations

B3.2 • Allowable maximum operating pressure

B3.2.A —Exceeding

B3.2.A.1 >grandfathered pipelines

B3.2.B —Low safety margin relative to test pressure

B3.2.B.1 >in Class 1 locations

B3.2.C—Reduction following an incident

B3.3 Branch service lines

B3.4 • Breakout tanks

B3.5 • Baypass lines/direct sales lines/farm taps

B3.6 • Control systems

B3.6.A —Excessive false alarms

B3.7 • Customer owned gas lines

B3.8 • Drug and alcohol abuse

B3.9 • Equipment failure

B3.10 • HVL facilities

B3.10.A —Two phase flow

B3.11 • Hydrostatic testing

B3.11.A —Exemption from

B3.11.B Periodic

B3.12 • Inspections

B3.12.A —Third party construction activity

B3.12.B -Encroachment

B3.12.C —Dents and gouges

B3.12.D —Cased crossings

B3.12.E —Minimum cover

B3.12.F —Obstacles to instrumented internal inspection

B3.12.G —Reporting requirements after voluntary use of instrumented internal inspection

B3.12.H —Requirements for instrumented internal inspection

B3.12.I —Technical variability among instrumented internal inspection.

B3.13 • Liquefied natural gas/ petroleum gas (LNG/LPG) systems

B3.13.A —Dense gas dispersion model

B3.13.B —Mobile LNG facilities

B3.14 • Pipeline Marker destruction

B3.15 • Obsolescent technology

B3.16 • Offshore pipelines

B3.17 • Operator qualification

B3.17.A —Excavator

B3.17.B -Pipeline

B3.17.C -Master meter system

B3.17.D —Liquid petroleum gas