

Questar Pipeline Company Integrity Management Plan

1. EXTERNAL SUMMARY

NOTE: *This summary of transmission integrity management plans is applicable to the regulated Questar subsidiary companies listed below. These companies will collectively be referred to as QPC or the Company throughout the remainder of this summary.*

Questar Pipeline Company (DOT Operator ID # 12874) - Federally regulated interstate transmission pipeline operator.

QPC encompasses various transmission subsidiaries, including , Questar Overthrust Pipeline Company, Questar Southern Trails Company and Questar White River Hub. These federally regulated pipelines are incorporated as part of QPC's integrity management program.

Terms or phrases that are italicized in the body of the QPC IMP External Summary are defined in the Glossary of Terms, Definitions and Acronyms (except Note, Caution and Warning Boxes).

Referenced Protocols

No protocols referenced in the External Summary Section.

1.1. PURPOSE OF THIS SUMMARY

- 1.1.1. QPC has prepared this summary of its transmission *integrity management plans (IMP)* in conformance with U.S. Department of Transportation (DOT) requirements for transmission integrity management. These DOT requirements are defined at 49 CFR Part 192 Subpart O, "Pipeline Integrity Management" and apply to all *natural gas transmission pipelines* located in *High Consequence Areas (HCAs)*.
- 1.1.2. QPC's transmission *integrity management plans (IMP)* provide for external communications with various stakeholders, including:
 - a. Landowners and Tenants along the *Rights of Way*;
 - b. Public Officials;
 - c. Emergency Responders; and
 - d. General Public.
- 1.1.3. The purpose of this document is to provide such parties with a summary of QPC's written *integrity management plans (IMP)* and contacts for additional information. Related pipeline safety information, including general information on QPC's prevention, integrity and emergency preparedness measures, can also be found at QPC's website (<http://www.questarpipeline.com>).

1.2. WHO TO CONTACT FOR ADDITIONAL INFORMATION

- a. Questar Affiliates Represented by This Summary:
 - i. *Questar Pipeline Company (QPC);*
 - ii. *Questar Southern Trails (QST);*
 - iii. *Questar Overthrust Pipeline Company (QOPC);* and
 - iv. *Questar White River Hub (WRH).*
- b. 24 Hour Emergency Contact Phone Number (Posted on each Pipeline Marker Sign):
 - i. QPC -- 800-300-2025
 - ii. QST -- 800-261-0668
- c. Website Email
 - i. <http://www.questar.com/1OurCompany/contacts/main.php>
- d. Questar Contact For Additional Information:
 - i. General Information:

Darren Shepherd, Director Corporate
Communication PO Box 45360 Salt Lake City, UT
84145-0360 801-324-5167
 - ii. Transmission Integrity Management Program:

Doug Brunt, Director, Integrity Management
801-324-3226

1.3. BACKGROUND ON UNDERLYING FEDERAL LEGISLATION

- 1.3.1. President George W. Bush and the 107th Congress passed the “Pipeline Safety Improvement Act of 2002” into law on December 17, 2002. Upon passing the bill into law, it became Public Law 107-355 which can be found in its entirety at <http://www.gpo.gov/fdsys/pkg/PLAW-107publ355/pdf/PLAW-107publ355.pdf>.
- 1.3.2. The new law required the *DOT* to issue regulations prescribing standards for *operator’s* adoption and implementation of new transmission *integrity management programs (IMP)*. The law set forth minimum requirements for *integrity management programs (IMP)* for gas transmission pipelines located in *High Consequence Areas (HCAs)*. The law also requires that operators of gas transmission pipelines complete baseline *integrity assessments* for *covered segments* within 10 years of enactment (by December 17, 2012.) The law also requires that 50 percent of *covered segments* be completed within 5 years of enactment (by December 17, 2007.) Finally, the law requires that *covered segments* be reassessed at least every 7 years.
- 1.3.3. The *DOT* has published the federally mandated regulations at 49 CFR Part 192 Subpart O. These *DOT* regulations are further discussed in paragraph 1.4.

1.4. BACKGROUND ON UNDERLYING DOT REGULATIONS

- 1.4.1. The DOT transmission integrity management regulations (49 CFR 192 Subpart O) define the minimum requirements for natural gas transmission pipeline *integrity management programs (IMP)*. These requirements apply to natural gas transmission pipelines located in *High Consequence Areas (HCAs)*. HCAs are further discussed in paragraph 1.5.
- 1.4.2. The DOT regulations also define what constitutes a *transmission line*:
Transmission line means a pipeline, other than a *gathering line*, that:
 - a. 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*,
 - b. Operates at a *hoop stress* of 20 percent or more of SMYS; or
 - c. Transports gas within a storage field. A large volume customer may receive similar volumes of gas as a *distribution center*, and includes factories, power plants, and institutional users of *gas*.
- 1.4.3. The DOT transmission *integrity management* regulations (49 CFR 192 Subpart O) do not include pipelines classified as *gathering lines* or *distribution lines*. (Gas service lines and mains serving residential and commercial customers are typically *distribution lines* and are not subject to this particular set of integrity management regulations.)
 - 1.4.4. A copy of the DOT transmission integrity management regulations can be obtained online from the DOT's website:
http://primis.phmsa.dot.gov/gasimp/docs/FinalRuleAmended_gas_full.pdf.

1.5. BACKGROUND -- HIGH CONSEQUENCE AREAS (HCAs)

- 1.5.1. Criteria for determining *High Consequence Areas (HCAs)* are defined by DOT regulations at 49 CFR §192.903. QPC has determined the location of *High Consequence Areas (HCAs)* on its transmission systems based on the DOT requirements. In essence, *High Consequence Areas (HCAs)* are highly populated areas or other areas particularly sensitive to potential transmission pipeline failures.
- 1.5.2. QPC can be contacted for further information on the specific location of *High Consequence Areas (HCAs)* in a community or for integrity related activities in a specific *High Consequence Area (HCA)*. Questions pertaining to *High Consequence Areas (HCAs)* should be directed to one of the contacts listed in paragraph 1.2. QPC reserves the right to only respond to officials or other persons requesting information for legitimate purposes.
- 1.5.3. QPC is also interested in being contacted by public officials or the general public regarding activities (e.g. *new construction*) that may result in new or expanded *High Consequence Areas (HCAs)*. Please direct any such information to one of the contacts listed in paragraph 1.2.

1.6. QPC'S TRANSMISSION INTEGRITY MANAGEMENT PLANS (IMP)

- 1.6.1. QPC has prepared comprehensive written plans defining its transmission *integrity management programs (IMP)*. These plans define the methods used to determine the location of *High Consequence Areas (HCAs)* subject to the

program, as well as the methods for assessing the integrity of the pipelines and otherwise complying with program requirements.

- 1.6.2. Allowable methods for assessing integrity include in line inspection (*ILI*, i.e. *smart pigs*), *pressure testing*, *direct assessment*, and other equivalent technology. *Assessments are performed* based on *risk* based prioritization and are periodically repeated.
- 1.6.3. Consistent with *QPC's* longstanding commitment to environmental protection and safety, each *integrity assessment* or other integrity management activity will be conducted in a manner that minimizes environmental and safety risks. Efforts will also be taken to minimize public inconvenience.
- 1.6.4. The basic content of *QPC's Integrity Management Plan (IMP)* is overviewed below. Each section represents a major program element or significant function or activity of the IM Program.
 - a. [Section 1](#) - INTRODUCTION
 - b. [Section 2](#) - ROLES AND RESPONSIBILITIES
 - c. [Section 3](#) - HCA IDENTIFICATION
 - d. [Section 4](#) - THREAT IDENTIFICATION AND EVALUATION
 - e. [Section 5](#) - RISK ASSESSMENT AND PRIORITIZATION
 - f. [Section 6](#) - ASSESSMENT METHOD SELECTION
 - g. [Section 7](#) - DIRECT ASSESSMENT PLANS
 - h. [Section 8](#) - BASELINE ASSESSMENT PLAN
 - i. [Section 9](#) - CONDUCTING ASSESSMENTS
 - j. [Section 10](#) - REMEDIATION
 - k. [Section 11](#) - ENVIRONMENTAL & SAFETY RISKS
 - l. [Section 12](#) - PREVENTIVE AND MITIGATIVE MEASURES
 - m. [Section 13](#) - CONTINUAL EVALUATION & REASSESSMENT
 - n. [Section 14](#) - MANAGEMENT OF CHANGE PROCESS
 - o. [Section 15](#) - QUALITY ASSURANCE PROCESS
 - p. [Section 16](#) - RECORD KEEPING
 - q. [Section 17](#) - PERFORMANCE PLAN
 - r. [Section 18](#) - PERSONAL KNOWLEDGE AND TRAINING
 - s. [Section 19](#) - COMMUNICATIONS PLAN
 - t. [Section 20](#) - REGULATORY INTERACTION
- 1.6.5. Detailed questions on the content of the plans and plan sections should be directed to one of the contacts listed in paragraph 1.2. *QPC* reserves the right to only respond to officials or other persons requesting information for legitimate purposes.

1.7. QUESTIONS & ANSWERS

1.7.1. Here are some questions and answers (these are hypothetical questions posed for illustrative purposes) that may assist with stakeholder understanding of QPC's transmission *Integrity Management Plan (IMP)* and activities.

- a. Q -- I live in a subdivision near one of your *high pressure natural gas pipelines*. There is extensive housing (hundreds of homes) in our subdivision and nearby surrounding area. Is the *pipeline* near our subdivision subject to your *integrity management program*?

A -- QPC transmission pipelines located in *High Consequence Areas (HCAs)* are included within the *Company's transmission Integrity Management Programs (IMP)* discussed herein. The criteria for *High Consequence Areas (HCAs)* is defined by federal regulations (49 CFR §192.903) and is fairly complex, but *High Consequence Areas (HCAs)* essentially are highly populated areas or other areas particularly sensitive to potential *transmission pipeline failures*. The answer to your question is site specific, and can be provided by an appropriate QPC representative (e.g. Doug Brunt, 801-324-3226).

- b. Q -- I'm a County representative who was previously contacted by QPC asking for information on the location of so called *High Consequence Areas (HCAs)*. I didn't have any information to provide before, but now I know of a planned new school that might result in the designation of one of these *High Consequence Areas (HCAs)* near one of your *pipelines*. What should I do?

A -- QPC greatly appreciates the support and valuable information received from public officials. You should contact QPC's *integrity management* representative, Doug Brunt, at (801) 324-3226.

- c. Q -- What options do you have for conducting *pipeline assessments*? Our agency is concerned that you will choose a method that will result in more *excavation* than is desired. Can you limit yourself to a single method, say *pressure testing*, to minimize the amount of *excavation*?

A -- No, all options for *assessment* methods are needed. The DOT currently recognizes four methods: *pressure testing*, *in line internal inspection (ILI, i.e. smart pigging)*, *direct assessment* and other equivalent technology. QPC's analysis of a particular *segment* will *determine* the appropriate method. For example, a certain *pipeline* providing a critical "one way" feed to customers may not be able to be removed from service for *pressure testing* (typically done by pressuring the line up to prescribed levels using water.) QPC is in the best position to *determine* the appropriate *assessment* methods with the least amount of impact based on the specific circumstances involved with each *pipeline*.

- d. Q -- What is "*direct assessment*"?

A -- The DOT regulations explain that *direct assessment* is an *integrity assessment* method that utilizes a defined *process* to evaluate certain *pipeline* threats (e.g. external *corrosion*.) In the case of external *corrosion*, a four step *process* is used including gathering and *integration* of *risk* factor data (preassessment), *indirect examination* to identify areas of suspected *corrosion*, *direct examination* of the *pipeline*, and post *assessment*

evaluation. External Corrosion Direct Assessment is a method established by the *National Association of Corrosion Engineers (NACE)* in a nationally recognized standard, Recommended Practice RP-0502.

- e. Q -- Your website indicates that *in line inspection* is one of your *integrity assessment* methods. What is *in line inspection*?

A -- *In line inspection (ILI)*, also known as *smart pigs*, refers to the use of instrumented, *internal inspection* tools to take integrity related measurements along a *transmission pipeline*. Not all *transmission pipelines* are configured to allow the use of *smart pigs* due to historical restrictions such as constrained bends, fittings, reduced port valves, etc. One commonly used *smart pig* uses *Magnetic Flux Leakage (MFL)* technology to look for metal loss due to *internal* or *external corrosion*. Essentially, a magnetic field is passed through the wall and sensors look for distortions in the magnetic field due to *metal loss*. Another commonly used *smart pig* is a caliper tool that looks for physical *deformation*, such as caused by *third party excavation damage (dents)* to the *pipeline*.

- f. Q -- Your company has indicated plans to conduct an *integrity assessment* in our area. Is this *assessment* a one time event?

A -- No. Federal legislation and federal regulations require that *integrity assessments* be periodically conducted on natural gas *transmission pipelines* located in *High Consequence Areas (HCAs)*. These *assessments* will be conducted every few years consistent with the federal requirements.

- g. Q -- I'm an emergency first responder with [ABC] County. I would like webbased access to your *pipeline* maps, including the location of your *High Consequence Areas (HCA)*. Can you provide the requested web based access to your maps?

A -- Not presently. *QPC* places emphasis on the protection of sensitive information that could expose its *facilities* to the increased *risk* of terrorism, including public web posting of maps showing the location of *High Consequence Areas (HCAs)*. *QPC* recognizes the essential work of emergency responders and is fully committed to supporting them with maps and other information to facilitate *emergency* preplanning. *QPC* will distribute *Company* maps as requested by emergency responders, local officials or others with a legitimate need for the information. Federal, *state* and local governments can also obtain access to the *National Pipeline Mapping System (NPMS)* to learn the location of Questar and other *pipelines*. The *NPMS* website is: <http://www.npms.phmsa.dot.gov/>

- h. Q -- The City of [XYZ] has your company's high *pressure transmission pipelines* located in some recently repaved roads. The City is interested in learning the location of your *High Consequence Areas (HCAs)* and your planned activities. We are concerned that your planned activities may result in *excavation* and damage to some of these roads (we have an *excavation moratorium* for 3 years after paving), and we want you to postpone your activities until after the expiration of the moratorium.

A -- It may be possible that *QPC's* planned *integrity management* activities are not scheduled until after the moratorium expires and depending on the *assessment* methods used, there may not be any *excavation* in the roadway

needed. QPC would be happy to meet with you to *review* in detail the location of the *High Consequence Areas (HCAs)* and the planned integrity management activities. Please note that the *direct assessment* method requires small core holes in the pavement every 10 feet (typically) to take cathodic readings at close intervals along the *pipeline*. The results of any *assessment* may dictate that *excavation* in the roadway take place in order to examine the *pipeline*. QPC will cooperate with the City by obtaining the required *excavation* permits and making appropriate road repairs, but ultimately, the federal regulations may require *excavation* of these *pipelines*.

- i. Q -- Our City Council has recently become aware of QPC's new transmission *integrity management program* due to a series of *excavations* that have been conducted within the City. The Council is curious to know about the results of your *inspections* and to know whether the *pipeline* is safe. How do we get a copy of your *inspection* results?

A -- First, QPC is fully committed to safe, reliable *natural gas* service and its *pipelines* will be maintained as such. QPC would be happy to meet with the Council or other appropriate City officials to review our *integrity management program (IMP)* and results. QPC sees the City as an important partner in its *integrity management program (IMP)*, providing valuable information such as the locations of potential new *High Consequence Areas (HCAs)*. We want to facilitate stakeholder dialogue, information sharing, and mutual cooperation, and would be happy to meet at your convenience.

- j. Q -- I own land that is crossed by one of QPC's *natural gas transmission pipelines*. The land is mostly open range, except for a couple of office buildings at [XYZ] Road. I understand from one of your employees that you plan to come through my land this next year to conduct some specialized integrity related *inspections*. I'm not sure that I want to allow any land *disturbance activities*. What assurance do I have that you won't "tear up" the area when you do these *inspections*?

A -- These *inspections* are part of the *Company's* transmission *integrity management program (IMP)* and conducted pursuant to federal pipeline safety requirements. QPC does not have the option of not conducting these *inspections* as they are federally mandated. However, QPC's *integrity management program (IMP)* has *procedures* designed to ensure that *inspection* activities are conducted in a manner that minimizes environmental impact and safety risks. Activities will be conducted in conformance with *rights-of-way* agreements for the *pipeline*. QPC will not engage in any unnecessary *excavation* or site disturbance, and will work to restore any required disturbances such that you don't feel that your land has been "torn up" or degraded.

- k. Q -- I understand that QPC's *integrity management program (IMP)* involves periodic *assessments* of the condition of *transmission pipelines* in *High Consequence Areas (HCAs)*. What activities occur once the *assessments* are completed? Are repairs required, or possibly other actions such as line replacements?

A -- Any needed repairs will be undertaken to keep the *pipeline* in a safe, reliable condition. Line replacement is an unlikely contingency, but older lines eventually may warrant retirement or replacement. Any "immediate" (using

DOT terminology) repair needs will be undertaken in an immediate timeframe. Under *DOT* requirements, immediate repair *conditions* require keeping the line at a safe, reduced operating pressure, or possibly even shutting the line down pending repairs. Less severe repairs, referred to as “scheduled” repairs (again, using *DOT* terminology) will be made within appropriate timeframes to ensure safety and *system* reliability.

- I. Do you have additional questions that are not listed above? If so, please contact one of Questar’s representatives listed in paragraph 1.2 above. Alternately, you can email your question or comment to Questar at http://www.questarpipeline.com/landing/contacts_QPC.php

REVISION HISTORY -- EXTERNAL WEBSUMMARY				
SUMMARY OF QUESTAR PIPELINE COMPANY'S INTEGRITY MANAGEMENT PLAN				
REVISION DATE	AUTHORIZATION FORM	AUTHOR	SIGNIFICANT (Yes/No)	SUMMARY or REMARKS**
1/31/2005	QRS WEBSUM-A	R. Jorgensen	N/A	Initial adoption of web site summary of IMP
4/7/2006	QPC WEBSUM-A1	D. Brunt	No	Remove QGC References
2/4/2009		D. Brunt	No	Update Phone Number and added White River Hub
4/30/2013		D. Brunt	No	Changed to new template
10/4/2016		W. Garner	No	Removed Columbia Gulf, updated names

1.8. PROGRAM AUTHORIZATION AND APPROVAL

1.8.1. Purpose: Periodic review and update.

1.8.2. Approval: Minor Edit -- Requires **M2** signature only.

1.8.3. Electronic File Information:

a. Title: Summary -- Transmission Integrity Management Plan

b. Filename: _Volume 1_IMP Summary for External Web Site - QPC Rev A2.doc

c. Last Saved: 10/22/2010 2:34:00 PM, by: Diana Colby

1.8.4. Minor edit requires **M2** approval only:

Title	Name	Signature	Date
M2 Supervisor Integrity Management	Doug Brunt	/s/ Doug Brunt	10/4/2016

1.8.5. Major edit requires additional **M3**, **M1** and **E1** approval:

Title	Name	Signature	Date
M3			
M1			
E1			

NOTE: /s/ indicates electronic signature.