



November 28, 2014

Mr. Brian Shand, P.Eng.
Director, Gas Facilities
Fifth Avenue Place East
Fourth Floor, 425 1st Street S.W.
Calgary, AB T2P 3L8

Dear Mr. Shand,

Re: AP Pipeline Integrity Management and Emergency Response Procedures Manuals

In response to your letter of September 29, 2014, ATCO Pipelines confirms that its procedural manuals have been prepared and maintained in an up to date fashion in accordance with relevant industry and CSA standards and that AP is operating in compliance with the procedures established in its procedural manuals.

5 Highest Risk Pipeline Segments

Please refer to the attachment titled, "AP Pipeline Segments" for details regarding AP's pipeline segments with the five highest risk ratings. Included in the attachment is the nature of the risks associated with each pipeline segment and the current risk mitigations in place to ensure safe and reliable service. As the Commission is aware, AP is undertaking the UPR Project and as such until this program is complete the highest risk pipelines are those pipelines that will be removed from high pressure service. Included in the attached table is the order in which those lines were ranked through the UPR Needs Application (AUC ID 1995), in addition to the threats, history, consequences, and mitigations associated with the pipelines.

AP's risk assessment criteria include the likelihood of pipeline failure and the severity of the consequences that may result from a failure. The likelihood of failure is influenced by integrity threats that include, but are not limited to, the following:

- performance history
- external corrosion
- coating type and condition
- cathodic protection survey results
- In-Line Inspection (ILI) results
- third party activity and damage potential
- geotechnical impact
- hydrological threats
- manufacturing defects

- construction practices at time of installation
- stress level
- stress corrosion cracking

Assessment also considers the potential consequences of failure. These factors include the following:

- class location of the pipeline
- impact of pipeline outage
- environmental impacts
- ability to isolate and repair the pipeline

Through AP's integrity management program, pipelines are continually assessed with the information that is available. AP is continuing to modify its existing natural gas transmission system to accommodate In-Line inspection tools in addition to utilizing other integrity tools such as External Corrosion Direct Assessment (ECDA), Cathodic Protection surveys, Integrity digs and investigations following any pipeline failures.

Overpressure Protection

AP's engineering design practice addresses differences in Maximum Operating Pressure (MOP) between producer transportation and interconnecting pipeline systems at its facilities by adhering to the requirements of applicable regulatory requirements and codes (i.e., CSA Z662, ASME B31.3) for the design of over pressure controls and devices.

AP has developed and implemented documented policies and procedures to detail the requirements for the operation, inspection and maintenance of overpressure protection equipment and systems in accordance with Alberta Boiler Safety Association (ABSA), ASME B31.3 or CSA Z662 as applicable. Valving, Pressure Relief/Safety Valves and Pressure Control Valves are inspected, operated and maintained at prescribed intervals according to AP procedures.

AP is not aware of any instances where appropriate overpressure protection is not in place, however explicit verification has not been provided by upstream facility owners. In the event AP identifies a situation where appropriate overpressure protection is not adequate, appropriate corrective action or capital improvements would be completed to rectify the situation.

In addition to the above mentioned measures, AP monitors pipeline operating pressures on a 24hr/day 365 days per year basis at all locations where Supervisory Control and Data Acquisition (SCADA) data is available. SCADA pipeline alarm limits are defined in 2 stages, with the first alarm level below M.O.P. in order to notify Control Operators that the pressure is near design tolerances and to initiate Control Operator action to reduce pressure prior to the requirement for design safeguards on site to become engaged. The second alarm level is at M.O.P. where the AP Control Center has zero tolerance



with respect to exceeding pipeline M.O.P and will take or initiate immediate action to reduce pressures where the engineering safeguards are no longer engaged.

Status of Watercourse Crossings

Three high risk watercourse crossings required replacement or remediation as a result of the 2013 Southern Alberta flood event. AP completed remediation work in Q2 2014 of the Jumping Pound Transmission pipeline crossing of the Elbow River. In Q2 2015, AP plans to complete remediation and replacement of the Bragg Creek Branch pipeline at the Elbow River crossing and the Mainline South pipeline crossing at the Highwood River.

AP inspects and monitors all watercourses as part of right-of-way inspection and operational monitoring programs. AP also reviews, schedules and conducts high risk watercourse crossing inspections based on recommendations received from external consultants regarding flooding events. The 2014 watercourse inspection program included the following sixteen pipeline watercourse crossings within the Bow River Basin which were identified for assessment based on 2013 flooding events.

<i>Pipeline Name</i>	<i>River</i>	<i>Crossing Location</i>
Petrogas - Meadowfield Transmission	Bow River	10-23-23-1-5
Carbon Transmission	Bow River	10-23-23-1-5
Priddis Transmission	Bow River	2-25-22-1-5
Cochrane Branch	Bow River	4-35-25-4-5
Elbow Valley Br	Elbow River	4-4-24-2-5
Mainline South	Pine Creek	15-11-22-1-5
Mainline South	Fish Creek	9-3-23-1-5
Mainline Loop Line (406.4mm)	Pine Creek	15-11-22-1-5
Banff Transmission	Spray River	5-25-25-12-5
Banff Transmission	Bow River	5-32-25-11-5
Banff Transmission	Cascade River	15-28-25-11-5
Banff Transmission	Carrot Creek	12-23-25-11-5
Morley Pan Canadian Branch	Bow River	8-35-25-7-5
Banff Loop	Bow River	12-22-24-10-5
Turner Valley #2 Transmission	Fish Creek	16-5-23-1-5
Canmore Mines Branch	Bow River	5-28-24-10-5

The site inspections and depth of cover surveys for these watercourses were completed in mid-2014, with the assessment of findings from these surveys currently in progress.

Identified deficiencies will be addressed through appropriate mitigation plans. The watercourse inspection and survey program is adapted as required to respond to high water events. In 2015, AP plans to focus on Southern Alberta areas which have been subjected to flood events in 2014.

Pipeline Inspection Dig Schedule

In regards to the request to provide a list and schedule of dig sites, AP's 2014 ECDA survey program will result in coating verification digs being completed on the following pipelines:

- North Edmonton Loop
- Viking #3 Transmission
- Viking #4 Transmission
- Bittern Lake Redwater
- Bittern Lake Transmission
- Rossdale Transmission
- Nisku Airport Branch
- Mymam Transmission
- Strathmore Branch

AP is currently reviewing the 2014 ECDA survey reports to confirm the number of digs required on each pipeline. A schedule with the location of the digs will be finalized in January 2015, at which time AP will forward a copy to the Commission for its planning purposes.

Should you have any questions regarding this response or require further assistance, please contact the undersigned, at (780) 733-2877, at your convenience.

Yours truly,



D. Jason Sharpe, P.Eng., MBA
Vice President, Engineering and Major Projects