



U.S. Department
of Transportation
**Pipeline and Hazardous
Materials Safety
Administration**

1200 New Jersey Avenue, SE
Washington, DC 20590

October 1, 2020

VIA ELECTRONIC MAIL TO: bill.yardley@enbridge.com

Mr. William T. Yardley
President, Gas Transmission and Midstream
Enbridge, Inc.
5400 Westheimer Court
Houston, Texas 77056

CPF No. 1-2020-014-CAO

Dear Mr. Yardley:

Enclosed please find a Corrective Action Order (CAO) issued by the Pipeline and Hazardous Materials Safety Administration (PHMSA), Office of Pipeline Safety (OPS), in the above-referenced case. It requires Algonquin Gas Transmission, LLC, a subsidiary of Enbridge Inc., to take certain corrective actions with respect to Algonquin's Weymouth Compressor Station in Weymouth, Massachusetts.

Service of the CAO by electronic mail is deemed complete upon transmission and acknowledgement of receipt, or as otherwise provided under 49 C.F.R. § 190.5. The terms and conditions of this Order are effective upon completion of service.

Sincerely,

Alan K. Mayberry
Associate Administrator
for Pipeline Safety

Enclosure: CAO

cc: Ms. Linda Daugherty, Deputy Associate Administrator for Field Operations, OPS
Mr. Robert Burrough, Director, Eastern Region, OPS
Ms. Michele Harradence, SVP & Chief Operating Officer, Gas Transmission and
Midstream, michele.harradence@enbridge.com
Mr. Nathan Atanu, Manager, Operational Compliance, Algonquin Gas Transmission, LLC,
nathan.atanu@enbridge.com

CONFIRMATION OF RECEIPT REQUESTED

**U.S. DEPARTMENT OF TRANSPORTATION
PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION
OFFICE OF PIPELINE SAFETY
WASHINGTON, D.C. 20590**

In the Matter of)	
)	
Algonquin Gas Transmission, LLC,)	CPF No. 1-2020-014-CAO
a subsidiary of Enbridge, Inc.,)	
)	
Respondent.)	
)	

CORRECTIVE ACTION ORDER

Purpose and Background:

This Corrective Action Order (CAO or Order) is being issued under the authority of 49 U.S.C. § 60112 to require Algonquin Gas Transmission, LLC (AGT or Respondent), a subsidiary of Enbridge, Inc.,¹ to take the necessary corrective actions to protect the public, property, and the environment from potential hazards associated with the multiple unplanned emergency shutdown events at its Weymouth Compressor Station in Weymouth, Massachusetts (Station).

On September 11, 2020, the Station experienced an O-ring gasket failure on a sump tank during the Station’s commissioning activities (Incident 1). The failure triggered the manual operation of the emergency shutdown system and the release of approximately 169 thousand cubic feet (mscf) of natural gas. On September 30, 2020, at approximately 10:30 AM, the Station experienced an unplanned emergency shutdown, resulting in the release of approximately 275 mscf of natural gas (Incident 2). The circumstances surrounding the failure of the O-ring gasket in Incident 1, as well as the cause for the emergency shutdown in Incident 2 (collectively, Incidents) are under investigation.

Pursuant to 49 U.S.C. § 60117, PHMSA, Office of Pipeline Safety (OPS), initiated an investigation of the Incidents. The preliminary findings of the agency’s ongoing investigation are as follows:

Preliminary Findings:

- The Station is part of the AGT’s Atlantic Bridge Pipeline Project (Project). The Project involves replacing a 6.3-mile (10-kilometer) 26-inch-diameter pipe section with a 42-inch pipe in New York and Connecticut. The Project also involves installing a new

¹ Enbridge, Inc. website, *National Gas Transmission and Midstream*, available at <https://www.enbridge.com/About-Us/Natural-Gas-Transmission-and-Midstream.aspx> (last accessed September 30, 2020).

meter station in Connecticut, modifications to various metering stations spread across several states, installation of four new compressor units at existing facilities, and a new compressor station in Weymouth, Massachusetts. When completed, the Project will provide an additional 132,700 dekatherms of capacity on the AGT pipeline system and the Maritimes & Northeast pipeline system.

- Weymouth, Massachusetts, is a heavily populated suburb outside of Boston, Massachusetts. The Station is in a high consequence area, and is located near Fore River Bridge, a heavily trafficked commuter road.
- The Station has a station design pressure of 1440 pounds per square inch gauge (psig).
- The Station experienced a gasket failure that triggered the manual activation of its emergency shutdown system, as well as an unplanned emergency shutdown due to unknown reasons, less than three weeks apart.
- There were no injuries or fatalities associated with the Incidents; however, the release of large quantities of pressurized natural gas in a heavily populated area carries a substantial risk of fire, explosion, and personal injury or death and releases harmful methane into the environment.
- On September 30, 2020, the inlet pressure at the Station was 683 psig; the discharge pressure at the time of the emergency shutdown was 707 psig.
- AGT is performing a root cause failure analysis on the O-ring gasket failure that caused Incident 1.
- The reason for Incident 2 is unknown and under investigation.
- The Station is currently shut-in.

Determination of Necessity for Corrective Action Order and Right to Hearing:

Section 60112 of title 49, United States Code, authorizes PHMSA to determine that a pipeline facility is or would be hazardous to life, property, or the environment and, if there is a likelihood of serious harm, to expeditiously order the operator of the facility to take necessary corrective action, including suspended or restricted use of the facility, physical inspection, testing, repair, replacement, or other appropriate action. An order issued expeditiously must provide an opportunity for a hearing as soon as practicable after the order is issued.

In deciding whether to issue an order, PHMSA must consider the following, if relevant: (1) the characteristics of the pipe and other equipment used in the pipeline facility, including the age, manufacture, physical properties, and method of manufacturing, constructing, or assembling the equipment; (2) the nature of the material the pipeline facility transports, the corrosive and

deteriorative qualities of the material, the sequence in which the material are transported, and the pressure required for transporting the material; (3) the aspects of the area in which the pipeline facility is located, including climatic and geologic conditions and soil characteristics; (4) the proximity of the area in which the hazardous liquid pipeline facility is located to environmentally sensitive areas; (5) the population density and population and growth patterns of the area in which the pipeline facility is located; (6) any recommendation of the National Transportation Safety Board made under another law; and (7) any other factors PHMSA may consider appropriate.

After evaluating the foregoing preliminary findings of fact, and having considered that the Station had an O-ring gasket failure that triggered the manual operation of its emergency shutdown system and an unplanned emergency shutdown for unknown reasons within the past three weeks; the uncertainties as to the cause of Incident 2; and the Station's location in a High Consequence Area, and proximity to populated areas and highly-trafficked public roads, I find that continued operation of the Station without corrective measures is or would be hazardous to life, property, or the environment, and that failure to issue this Order expeditiously would result in the likelihood of serious harm.

Accordingly, this Corrective Action Order mandating immediate corrective action is issued without prior notice and opportunity for a hearing. The terms and conditions of this Order are effective upon receipt.

Within 10 days of receipt of this Order, Respondent may request a hearing, to be held as soon as practicable, by notifying the Associate Administrator for Pipeline Safety in writing, with a copy to the Director, Southwest Region, PHMSA (Director). If a hearing is requested, it will be held in accordance with 49 C.F.R. § 190.211.

After receiving and analyzing additional data in the course of this investigation, PHMSA may identify other corrective measures that need to be taken. Respondent will be notified of any additional measures required and, if appropriate, PHMSA will consider amending or withdrawing this Order, if warranted by new supporting information. To the extent consistent with safety, Respondent will be afforded notice and an opportunity for a hearing prior to the imposition of any additional corrective measures.

Required Corrective Actions:

Definitions:

Affected Pipeline – The Weymouth Compressor Station, including incoming pipeline, I-10, back to first upstream mainline valve.

Isolated Segment – Means the Weymouth Compressor Station, from inlet valves to outlet valves.

Director – Means the Director, Pipeline and Hazardous Materials Safety Administration (PHMSA), Office of Pipeline Safety, Eastern Region. The Director's address is 840 Bear Tavern Road, Suite 300, West Trenton, NJ 08626.

Pursuant to 49 U.S.C. 60112, I hereby order AGT to immediately take the following corrective actions for the Affected Pipeline and Isolated Segment:

1. ***Shutdown of the Isolated Segment.*** The Isolated Segment is currently shut-in and not in operation. AGT must not operate the Isolated Segment until authorized to do so by the Director.
2. ***Restart Plan.*** Prior to resuming operation of the Isolated Segment, AGT must develop and submit a written Restart Plan to the Director for approval.
 - a. The Director may approve the Restart Plan incrementally without approving the entire plan but the Isolated Segment cannot resume operation until the Restart Plan is approved in its entirety.
 - b. Once approved by the Director, the Restart Plan will be incorporated by reference into this Order.
 - c. The Restart Plan must provide for adequate patrolling of the Isolated Segment during the restart process and must include incremental pressure increases during start-up, with each increment to be held for at least two hours.
 - d. The Restart Plan must include sufficient surveillance of the Isolated Segment during each pressure increment to ensure that no leaks are present when operation of the line resumes.
 - e. The Restart Plan must specify a day-light restart and include advance communications with local emergency response officials.
 - f. The Restart Plan must provide for a review of the Isolated Segment for conditions similar to those that caused the Incidents, including a review of construction and commissioning records. AGT must address any findings that require remedial measures to be implemented prior to restart.
 - g. The Restart Plan must also include documentation of the completion of all mandated actions, and a management of change plan to ensure that all procedural modifications are incorporated into AGT's operations and maintenance procedures manual.
 - h. Prior to restart, AGT must submit to the Director a contingency plan to operate and monitor the Isolated Segment during flooding conditions, including enhanced patrolling and surveillance.
3. ***Return to Service.*** After the Director approves the Restart Plan, AGT may return the Isolated Segment to service but the operating pressure must not exceed eighty percent (80%) of the actual operating pressure in effect immediately prior to Incident 2, in accordance with Item 2 above.

4. ***Removal of Pressure Restriction.*** The Director may allow the removal or modification of the pressure restriction upon a written request from AGT demonstrating that restoring the pipeline to its pre-Incident 2 operating pressure is justified based on a reliable engineering analysis showing that the pressure increase is safe, considering all known defects, anomalies, and operating parameters of the pipeline.

The Director may allow the removal or modification of the pressure restriction upon a written request from AGT demonstrating that restoring the Affected Segment to its pre-Incident 2 operating pressure is justified, based on a reliable engineering analysis showing that the pressure increase is safe, considering all known defects, anomalies, and operating parameters of the pipeline.

5. ***Temporary Removal of Pressure Restriction.*** The Director may allow the temporary removal or modification of the pressure restrictions upon a written request from AGT demonstrating that temporary mitigative and preventive measures are being implemented prior to and during the temporary removal or modification of the pressure restriction. The Director's determination will be based on the known or suspected cause of Incident 2 and the provision of evidence that preventive and mitigative actions taken by the operator provide for the safe operation of the Affected Segment during the temporary removal or modification of the pressure restriction. Appeals to determinations of the Director in this regard will be decided by the Associate Administrator for Pipeline Safety.
6. ***Root Cause Failure Analysis.*** Within 90 days following receipt of this Order, complete a root cause failure analysis (RCFA) and submit a final report of this RCFA to the Director. The RCFA must be supplemented or facilitated by an independent third-party acceptable to the Director and must document the decision-making process and all factors contributing to Incident 2. The final report must include findings and any lessons learned and whether the findings and any lessons learned are applicable to other locations within AGT's pipeline system.

Other Requirements:

7. ***Approvals.*** With respect to each submission that under this Order requires the approval of the Director, the Director may: (a) approve, in whole or part, the submission; (b) approve the submission on specified conditions; (c) modify the submission to cure any deficiencies; (d) disapprove in whole or in part, the submission, directing that Respondent modify the submission, or (e) any combination of the above. In the event of approval, approval upon conditions, or modification by the Director, Respondent shall proceed to take all action required by the submission as approved or modified by the Director. If the Director disapproves all or any portion of the submission, Respondent must correct all deficiencies within the time specified by the Director, and resubmit it for approval.
8. ***Extensions of Time.*** The Director may grant an extension of time for compliance with any of the terms of this Order upon a written request timely submitted demonstrating good cause for an extension.
9. ***Reporting.*** Submit quarterly reports to the Director that: (1) include all available data and results of the testing and evaluations required by this Order; and (2) describe the progress

of the repairs or other remedial actions being undertaken. The first quarterly report is due on January 4, 2021. The Director may change the interval for the submission of these reports.

10. ***Documentation of the Costs.*** It is requested but not required that Respondent maintain documentation of the costs associated with implementation of this Corrective Action Order. Include in each monthly report submitted, the to-date total costs associated with: (1) preparation and revision of procedures, studies and analyses; (2) physical changes to pipeline infrastructure, including repairs, replacements and other modifications; and (3) environmental remediation, if applicable.

Be advised that all material you submit in response to this enforcement action is subject to being made publicly available. If you believe that any portion of your responsive material qualifies for confidential treatment under 5 U.S.C. § 552(b), along with the complete original document you must provide a second copy of the document with the portions you believe qualify for confidential treatment redacted and an explanation of why you believe the redacted information qualifies for confidential treatment under 5 U.S.C. § 552(b).

In your correspondence on this matter, please refer to “CPF No. 1-2020-014-CAO” and for each document you submit, please provide a copy in electronic format whenever possible. The actions required by this Order are in addition to and do not waive any requirements that apply to Respondent’s pipeline system under 49 C.F.R. Parts 190 through 199, under any other order issued to Respondent under authority of 49 U.S.C. Chapter 601, or under any other provision of Federal or State law.

Respondent may appeal any decision of the Director to the Associate Administrator for Pipeline Safety. Decisions of the Associate Administrator shall be final.

Failure to comply with this Order may result in the assessment of civil penalties and in referral to the Attorney General for appropriate relief in United States District Court pursuant to 49 U.S.C. § 60120.

The terms and conditions of this Order are effective upon service in accordance with 49 C.F.R. § 190.5.



October 1, 2020

Alan K. Mayberry
Associate Administrator
for Pipeline Safety

Date Issued