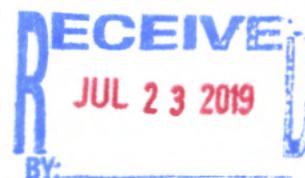


TC Energy
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Email: Lee_Romack@transcanada.com



July 17, 2019

Mr. Allan C. Beshore
Director, Central Region
Pipeline and Hazardous Materials Safety Administration
901 Locust Street, Suite 462
Kansas City, MO 64106-2641

RE: GREAT LAKES GAS TRANSMISSION CPF 3-2019-1002M – NOTICE OF AMENDMENT

Dear Mr. Beshore,

On June 24, 2019 TC Energy received Notice of Amendment Letter CPF 3-2019-1002M from the Pipeline and Hazardous Material Safety (PHMSA) Central Region dated June 17th, 2019. In the letter PHMSA identifies apparent inadequacies within Great Lakes Gas Transmission's plans or procedures regarding the Risk Model Procedure. The letter states:

Great Lakes Gas Transmission's (GLGT) Risk Model Procedure is inadequate because it fails to accurately describe how GLGT documents changes to its program and the reasons for the change before implementing the change by computing risk based on different formulas and factors for the new assessment year than those provided in the current procedure. After completion of the Risk Assessment, the procedure formulas and factors were updated to reflect and document the process. The procedure lagged behind the actual process implemented for risk assessment. Language related to the retroactive procedure update process needs to be included if TC/GLGT continues this practice.

TC Energy does not contest the PHMSA finding. The TC Energy process for completing the System Wide Risk Assessment (SWRA) is that when the SWRA algorithms are run and the results are validated, documentation of the changes to the risk algorithms will commence within the TC Energy Engineering Report, *TER-IN-RISK- G System Wide Risk Assessment*. These updates are completed in parallel with the remaining steps within the risk assessment procedure, *TEP-IN-SWRA-GE System Wide Risk Assessment (CAN-US-MEX)*. As an ultimate step of the risk assessment process, documentation of the risk algorithm changes within the *TER-IN-RISK-G* are finalized.

The following changes have been made to the *TEP-IN-SWRA-GE System Wide Risk Assessment* to more clearly describe the process:

Clause 2.4 Running and Validating SWRA - Step 15 will be amended as follows:

Documentation of all changes to SWRA algorithms and result validation in the TER-IN-RISK-G System Wide Risk Assessment (CAN-US-MEX) (EDMS No. 005767607) will commence and continue in conjunction with the following risk assessment steps (16 through 44). Completion of the documentation will be done before the next annual SWRA cycle.

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Clause 2.7 Receiving Threat Specific SWRA Feedback - Step 44 will be added as a final step to the risk assessment process to state:

Documentation of all algorithm changes shall be completed in the TER-IN-RISK-G System Wide Risk Assessment report prior to commencing the next SWRA annual cycle.

The Appendix A provided is a copy of the relevant sections of *TEP-IN-SWRA-GE* with the amended clauses highlighted in green boxes.

TC Energy contends these amendments more clearly capture the process that is followed and that PHMSA's finding has been adequately addressed. Please contact me if you have any questions, or wish to discuss. I can be reached at 832-320-5315.

Respectfully,

A handwritten signature in black ink that reads "Lee Romack".

Lee Romack
Director, U.S. Regulatory Compliance
TC Energy

**TEP-IN-SWRA-GE System Wide Risk
Assessment Procedure (CAN-US-MEX)**



EDMS No.: 008448596

Rev.: 02

Status: Issued

Effective Date: 2018-May-01

Next Review Date: 2021-May-01

- | | | |
|-----|--|---|
| | | Quality and Strategy |
| 7. | Verify SWRA data with assistance of the Threat Management and Damage Prevention teams. | Risk Engineer |
| 8. | Integrate all applicable data tables and conduct dynamic segmentation based on all the input parameters required by the algorithm. | Pipe Integrity Engineer – Data Quality and Strategy |
| | <i>For additional data sets that need to be aligned and aggregated to the dynamic pipeline segments,</i> | |
| 9. | Align additional data sets to the dynamic pipeline segments with assistance of the Threat Management and Damage Prevention teams. | Pipe Integrity Engineer – Data Quality and Strategy |
| 10. | Review and validate the data alignment, and approve the use of the aligned additional data sets. | Threat Program Manager and/or SME |
| 11. | Aggregate the aligned additional data sets to the dynamic pipeline segments. | Pipe Integrity Engineer – Data Quality and Strategy |
| 12. | Archive all the data sets that have been gathered, integrated and aligned. | Pipe Integrity Engineer – Data Quality and Strategy |

2.4 Running and Validating SWRA

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|-----|------------------------|---------------|
| 13. | Run SWRA algorithm. | Risk Engineer |
| 14. | Validate SWRA results. | Risk Engineer |

- | | | |
|-----|---|---------------|
| 15. | <i>Documentation of all changes to SWRA algorithms and result validation in the TEP-IN-RISK-G System Wide Risk Assessment (CAN-US-MEX) (EDMS No. 005767607) will commence and continue in conjunction with the following risk assessment steps (16 through 44). Completion of the documentation will be done before the next annual SWRA cycle.</i> | Risk Engineer |
|-----|---|---------------|

TEP-IN-SWRA-GE System Wide Risk Assessment Procedure (CAN-US-MEX)



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processes in US-GAS-IMP US Pipeline Integrity Management Program (Onshore) (EDMS No. [003892898](#)).

- | | | |
|-----|---|---|
| 38. | Communicate HCAs with new "high" threat levels to Risk Engineer and the relevant Threat Program Manager and/or SME. | US IMP Integrity Engineer |
| 39. | Review new "high" threat levels and document results. | Risk Engineer and Threat Program Manager and/or SME |

2.7 Receiving Threat Specific SWRA Feedback

- | | | |
|-----|--|-----------------------------------|
| 40. | Consolidate threat-specific SWRA responses and feedback. | Risk Engineer |
| 41. | Verify that all IR and SR exceedances (<i>Intolerable criterion</i>) are addressed.

<i>If an exceedance of IR or SR (Intolerable criterion) is confirmed to not be addressed:</i> | Risk Engineer |
| 42. | Prepare a nonconformance as per the Nonconformance and Opportunity for Improvement Procedure (Cdn-US-Mex) (EDMS No. 006261835) | Threat Program Manager and/or SME |
| 43. | Summarize improvements proposed by the stakeholders through SWRA communication series and feedback. | Risk Engineer |

44.	<i>Documentation of all algorithm changes shall be completed in the TER-IN-RISK-G System Wide Risk Assessment report prior to commencing the next SWRA annual cycle.</i>	Risk Engineer
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3 SWRA- BACKGROUND

3.1 Threat Identification

The SWRA methodology is based on a set of likelihood of failure and consequence models, where failure is defined as a loss of containment event. The SWRA process identifies all threats as evidenced by historical failures, observations from assessments