PIPELINE INTEGRITY
CORROSION GROWTH RATE ANALYSIS
LINE 5 WNO-WMA 2013 MFL WITH 2008 MFL

Line Segment: 5
Date of Most Recent Inspection: 2013
Inspection Technology & Vendor: GE MFL
ILI Report Issue: 1

Date of Previous Inspection: 2008
Inspection Technology & Vendor: GE MFL
ILI Report Issue: 1

Corrosion Growth Rate Report Completed By: Valer Zapirtan
Date: March 1, 2017

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Date: March 9, 2017

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1. EXECUTIVE SUMMARY

Corrosion Growth Rate analysis was conducted for Line 5 WNO-WMA by comparing the 2013 GE MFL and 2008 GE MFL inspections. A total of 0 joints were reviewed; of these:

- 0 joints require further action as detailed below
- 0 joints require no further action

Joint	Action	Comment
XXXXX	Excavate	XXX-day timeline
XXXXX	Monitor	Monitor in AFD

2. OUTLIER CORROSION GROWTH RATES

The following is a summary of apparent outlier CGRs [delete as appropriate]:

Case	Description	# Joints (Ext)	# Joints (Int)	Comments
1	Historical CGR ≥0.30 mm/yr	0	0	
2	Back-to-back CGR ≥0.30 mm/yr	0	0	
3	RunCOM CGR ≥0.30 mm/yr	0	0	
4	Back-to-back CGR more than double historical CGR	0	0	
5	RunCOM CGR more than double historical CGR	0	0	
6*	RPR severity increase is ≥0.02/yr with **non-shielding** coatings	0	0	

* For RPR severity comparison, only RStreng, Effective Area or LAPA RPRs should be used since 0.85dL RPRs are typically overly conservative as the feature severity increases.

** In the case that no features meet the above criteria, the SML should consider reviewing the three most severe internal and external joint-specific CGRs.

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3. DETAILED REVIEWS – EXTERNAL CORROSION

All the anomalies entered in the feature match and Internal and external CGR are manufacturing defects. Typical manufacturing defects do not grow in depth such as corrosion features. Manufacturing defects usually maintain their depth along the time, except for special situations (eg. hydrogen desorption and forming bulging lamination, surface braking lamination that may grow, etc). MFL does not provide more information to assess the special situation of manufacture anomalies. They will be assessed when an UT tool is run.

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