

# Inspection Output (IOR)

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## Inspection Information

Inspection Name	Trans Mountain - Kinder Morgan	Operator(s)	TRANS MOUNTAIN PIPELINE (PUGET SOUND) LLC (19585)	Plan Submitted	04/29/2014
Status	PLANNED	Lead	David Cullom	Plan Approval	05/07/2014 by David Mulligan
Start Year	2014	Team Members	Anthony Dorrough	All Activity Start	05/01/2014
System Type	HL	Supervisor	David Mulligan, Joe Subsits	All Activity End	11/21/2014
Protocol Set ID	HL.2014.01	Director	Chris Hoidal, David D Lykken	Inspection Submitted	11/27/2014

Inspection Approval -- *DM*

*2/25/15*

## Inspection Summary

### Field Days

This inspection consisted of several visits to Bellingham for the OPA drill, records review, and a field visit for data collection, OQ activities, and field verification. **AFO days were 9 total.**

After the inspection of the Kinder Morgan Canada Trans Mountain Pipeline System in Bellingham, WA here are following recommendations.

- Warning Letter – Operator did not perform external shell inspections at the required 5 year interval per API 653.
  - § 195.432 Inspection of in-service breakout tanks.
    - (b) Each operator must inspect the physical integrity of in-service atmospheric and low-pressure steel aboveground breakout tanks according to API Standard 653 (incorporated by reference, see § 195.3). However, if structural conditions prevent access to the tank bottom, the bottom integrity may be assessed according to a plan included in the operations and maintenance manual under § 195.402(c)(3)
- Letter to Shell Refinery letting them know that T-7 is a regulated facility and that they are responsible for the operation and maintenance of this facility if they refuse to complete the transfer of the tank to Kinder Morgan or provide records demonstrating compliance with CFR 49 Part 195

T-130, 170, and 180 missed their 5 year in-service API 653 inspections that were due in 2013. I noticed this during the records portion of my inspection and the operator had completed the API in service inspection for tank 130 on October 13, 2014 before I returned to complete the field inspection in November. T-170 and 180 had already been completed previously in 2014. API 653 does not specify any grace period for completing the 5 year inspections. (i.e.60 months - Not to exceed "X" months)

## System Overview and Supplemental Information

15.3 miles of 20" crude oil line from the Canada-US border to Laurel; 11.6 miles of 16" line between Laurel Station and Ferndale Scraper Trap Station; 27.6 miles of 20" line between Laurel Station and Burlington Scraper Trap Station; 9 miles of 16" line between Burlington Scraper Station and Anacortes Meter Station. The 11.6-mile long of the 16" line from Laurel Station to Ferndale Scraper Trap Station is single submerged arc weld (SAW) pipe. There has been concerns about the integrity of the long seam weld. This segment of the pipeline was inspected by running an ILI in 2012. The installation date was 1954. Information in historical inspection records indicate a normal operating pressure maximum of 840 psig and a max % SMYS of 52. MOP is 1170 psig. This information is from 2010. The line was idle during my field visit so I was unable to collect operating pressure data.

The breakout tank inspection was part of the standard inspection of the pipeline system. As part of the expansion at the Laurel Station, tanks T-170 and T-180 were refurbished in 2008 to bring them into compliance with API 653 requirements. Tank T-130 at the Ferndale Station was built in 2008 for surge relief. Tank T-7 inside the Shell Refinery in Anacortes was inspected by a certified API 653 Inspector in 2010 for in-service external inspection. All 4 tanks were inspected during the field inspection. Tank 7 is still

owned and operated by Shell.

## Scope (Assets)

Short # Label	Long Label	Asset Type	Asset IDs	Excluded Topics	Planned	Required	Inspected	Total	Required % Complete
1. Unit 285	WA-UTC/TRANS MOUNTAIN OIL PIPELINE	unit	285	--	287	265	267	267	100.0%

a. Percent completion excludes unanswered questions planned as "always observe".

## Plans

Plan # Assets	Focus Directives	Involved Groups/Subgroups	Qst Type(s)	Extent Notes
1. Unit 285	Initial Inspection	ALO, AR, CR, DC, EP, FS, IM, MO, PD, RPT, SRN, TD, TQ, GENERIC	P	Detail
2. Unit 285	HL IM Implementation (4/2013)	ALO, AR, CR, DC, EP, FS, IM, MO, PD, RPT, SRN, TD, TQ, GENERIC	P, R, O, S	Detail
3. Unit 285	n/a	EP.EPO	P, R, O, S	Detail
4. Unit 285	n/a	ALO	P, R, O, S	Detail
5. Unit 285	n/a	EP.ERL, EP.ETR, FS.TSAPIINSPECT, MO.LMOPP, MO.LOOPER, MO.ABNORMAL, MO.LOMOP, MO.LC, MO.LM, MO.LO, PD.RW, TD.CPMONITOR, TD.CPEXPOSED, TD.ATM, TD.CP, TD.ICP	R	Detail
6. Unit 285	HL OQ	ALO, AR, CR, DC, EP, FS, IM, MO, PD, RPT, SRN, TD, TQ, GENERIC	P, R, O, S	Detail
7. Unit 285	BO Tank Inspection	ALO, AR, CR, DC, EP, FS, IM, MO, PD, RPT, SRN, TD, TQ, GENERIC	P, R, O, S	Detail

## Plan Implementations

Activity # Name	SMART Act#	Start Date End Date	Focus Directives	Involved Groups/Subgroups	Assets	Qst Type(s)	Planned	Required	Inspected	Total	Required % Complete
1. Inspection	149232	10/07/2014 11/21/2014	n/a	all planned questions	Unit 285	all types	287	265	267	267	100.0%
2. OPA	149231	05/01/2014 05/01/2014	n/a	EP.EPO	Unit 285	all types	5	5	5	5	100.0%
3. OQ	149232	10/07/2014 11/21/2014	HL OQ	all planned questions	all assets	all types	17	17	17	17	100.0%

a. Since questions may be implemented in multiple activities, but answered only once, questions may be represented more than once in this table.

b. Percent completion excludes unanswered questions planned as "always observe".

## Forms

No.	Entity	Form Name	Status	Date Completed	Activity Name	Asset
1.	Attendance List	Attendance List KM 2014 Inspection	COMPLETED	12/12/2014	Inspection	Unit 285
2.	Breakout Tanks	T-180	COMPLETED	12/12/2014	--	Unit 285
3.	Breakout Tanks	T-170	COMPLETED	12/12/2014	Inspection	Unit 285
4.	Breakout Tanks	T-7	COMPLETED	12/12/2014	Inspection	Unit 285

No.	Entity	Form Name	Status	Date Completed	Activity Name	Asset
5.	Breakout Tanks	T-130	COMPLETED	12/12/2014	Inspection	--
6.	Drug and Alcohol	DnA Questions	COMPLETED	12/12/2014	Inspection	Unit 285
7.	OPA Exercise	OPA Exercise	COMPLETED	12/12/2014	OPA	Unit 285
8.	Oil Pollution Act	Swinomish Channel Crude OIL Spill	COMPLETED	12/12/2014	Inspection	Unit 285

## Results (Unsat, Concern values, 1 results)

### FS.TSAPIINSPECT: Tanks and Storage - Inspection

1. Question Result, ID, References Unsat, FS.TSAPIINSPECT.BOINSRVCINSP.R, 195.404(c)(3) (195.432(b))

Question Text *Do records document that steel atmospheric or low pressure breakout tanks have received routine in-service inspections at the required intervals and that deficiencies found during inspections have been documented?*

Assets Covered Unit 285

Result Issue Summary The operator forgot to complete the 5 year in-service API 653 tank inspection for several tanks but they all now have been completed in 2014. This is one year beyond the 5 year limit per API 653.

Standard Issues B2 (Moderate or small impact/limited occurrence) : 195.432(b) : Records indicate requirement not completed at required intervals

Result Notes T-130, 170, and 180 missed their 5 year in-service API 653 inspections that were due in 2013. I noticed this during the records portion of my inspection and the operator had completed the API in service inspection for tank 130 on October 13, 2014 before I returned to complete the field inspection in November. T-170 and 180 had already been completed previously in 2014. API 653 does not specify any grace period for completing the 5 year inspections i.e. (60months - Not to exceed "X" months)

Additional Comments

Decision

Report Parameters: Results: Unsat, Concern

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