

TRANS MOUNTAIN PIPELINE ULC

Commodity Approval Process

Issued: June 26, 2017

Effective Date: July 15, 2017

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Commodity Approval Process

Purpose

To provide quality controls regarding commodities handled by the pipeline systems to ensure the safety of people and the safe operation of the pipelines and associated facilities.

Applicability

The Commodity Approval Process applies to proposed Crude Petroleum or Refined Petroleum ("Commodity") on the following pipeline systems:

- 1) Trans Mountain Pipeline ULC ("Carrier"), and
- 2) Trans Mountain Pipeline (Puget Sound) LLC

The Commodity Approval Process also applies to tanks owned by Trans Mountain Pipeline ULC but not used by the Carrier for mainline transportation service (contract tanks).

Overview

There are four stages to the Commodity Approval Process, namely

- 1) Formal Request (presented by Applicant to Carrier)
- 2) Review Process (completed by Carrier)
- 3) Stakeholders' Comments (collected by Carrier from Stakeholders)
- 4) Commodity Approval (announcement by Carrier)

Stage 1. Formal Request

The Formal Request must be made by a shipper or potential shipper ("Applicant") who proposes to create and support the Commodity. The Formal Request will be submitted by the Applicant to Carrier, and must include a complete Proposed Commodity Form. An example of the Proposed Commodity Form is contained at the end of this document. Amendments to the Proposed Commodity Form may be required from time to time.

The forecast information for the first year's shipments will be used to determine routine handling requirements as well as special handling requirements, if applicable. The required test data and a current Safety Data Sheet (SDS) must also be supplied with the Proposed Commodity Form. A preliminary SDS may be submitted initially provided that an updated SDS is submitted to Carrier prior to Nomination. Data provided is expected to accurately reflect the Commodity that will be received and must be submitted as a signed Certificate of Analysis per the cited methodologies in the Proposed Commodity Form.

The Formal Request is to be submitted to Carrier no later than thirteen (13) weeks before the first nomination for the Commodity. Nominations for a Commodity cannot be made until the Commodity has been granted final approval (Stage 4) and system updates are complete. If new facilities, new connections, or other provisions are required to manage the Commodity, there may be additional restrictions on when the Commodity can commence shipment.

Stage 2. Review Process

The review process will be conducted by Carrier within four (4) weeks of receipt of the completed Formal Request. If requested by Carrier, the Applicant shall provide a sample of the Commodity.

The Formal Request will be reviewed for:

- I. Stream Quality
 - a) Does the Commodity adhere to quality requirements as set forth in Carrier's Tariff and policies?
 - b) Determination of the Commodity Tariff ranking.
 - c) Are the Commodity's properties similar to an existing stream?
 - d) Will the Commodity require special handling (buffers, flush batches, pool exclusion, etc.)?
 - e) Does the Commodity require segregated tankage at receipt, breakout, or delivery locations?
 - f) Where in the shipping schedule should the Commodity be placed to minimize the quality impacts through the materials introduction?
 - g) Will the Commodity require pooling?
- II. Facilities Requirements
 - a) How will the Commodity access and exit the pipeline system(s)?
Do tanks, manifolds, booster pumps, or piping need to be modified?

- i.
- b) Are new facilities required?
 - i. Can the new Commodity be incorporated in the short and long term facilities management planning process?
 - ii. Potential impacts on future operations?

III. Service Levels

- a) Will approval of this Commodity affect service levels provided by Carrier?

IV. Other items as determined by Carrier.

On successful completion of the Review Process, Carrier will notify Applicant and Stakeholders that the Commodity has received conditional approval. This notification may include information associated with the Commodity (ex. proposed pool).

Stage 3. Stakeholders' Comments

Stakeholders, shippers, and interested parties will have ten (10) business days to express their comments with regard to the proposed Commodity. All comments will be directed to Carrier in writing. Carrier will compile all feedback, and will work to resolve issues related to the approval of the Commodity within the time frame available.

Stage 4. Commodity Approval

Final decision on Commodity approval will be issued by Carrier at its sole discretion on completion of the Stakeholder's Comment period and taking into consideration, to the extent applicable, the satisfaction of requirements for new facilities, connections or other provisions to safely manage the Commodity on the systems. Carrier will issue notification to Applicant and Stakeholders when a Commodity has been granted final approval. Once a Commodity has been approved it will take approximately four (4) weeks to complete system updates (VISTA, PLC and custody transfer measurement systems).

Inactive Commodity

If a Commodity has not been handled by the Carrier in the prior twelve (12) months period the Commodity will be deemed by the Carrier to be inactive ("**Inactive Commodity**"). The Carrier will periodically review the Commodities approved and notify shippers if a Commodity has become inactive.

Prior to nomination of an Inactive Commodity, shipper must provide written request to Carrier to reinstate the approval of the Commodity and confirmation that the Inactive Commodity continues to comply with test data previously submitted and approved under the Commodity Approval Process. If the Carrier accepts, at the Carrier's sole discretion, the request for reinstatement of approval for the Commodity, the Carrier will notify shippers of such reinstatement. If the Carrier does not accept the request for reinstatement of approval, an Applicant can submit a Formal Request for consideration under this Commodity Approval Process.



Proposed Commodity Form

Please complete all fields on this form and provide test results identified on page 5.

Contact Information

Company Name: _____

Key Person: _____ Phone: _____

Email: _____

Date Submitted: _____ Requested 1st Shipment Date: _____

Requested Pipeline(s):

_____ Trans Mountain Pipeline ULC ("**Trans Mountain**")

_____ Trans Mountain Pipeline (Puget Sound) LLC ("**Puget Sound**")

Commodity Identification

Common Name of Proposed Commodity: _____

Classification for Tariff: _____

Supply Connection(s): _____

Delivery Location(s): _____

Uses Trans Mountain's receipt tankage? ☐ Yes ☐ No

Uses Trans Mountain's delivery tankage? ☐ Yes ☐ No

Volume forecast (indicate ramp up and timing of step changes)

Date							
M3/day							

List any service or special handling requests (buffers, segregated tankage, pool exclusion, etc.):

Commodity Test Data Requirements

Quality Test Name	Procedure	Satisfaction
Classification		
Density (kg/m ³ at 15°C)	ASTM D1298 or D5002	< 940 kg/m ³
Kinematic Viscosity (cSt at 5°C, 10°C, 15°C) ₁	ASTM D445 or D7402	<350 cSt for all Reference Temperatures. Flowing viscosity must be suitable for system handling.
Sulphur content:		
1) total sulphur (weight %)	ASTM D4294 or D2622	As per pool criteria
2) hydrogen sulphide (weight ppm)	UOP 163	<425 ppm
3) volatile mercaptan sulphur (weight ppm)	ASTM D5623	With H ₂ S < 500 ppm
Micro Carbon Residue (MCR)	ASTM D4530	As per pool criteria
Custody Transfer		
Water (volume %)	API MPMS Ch 10.9 (ASTM D4928)	Water and Sediment combined must not exceed 0.50% volume.
Sediment (volume %)	API MPMS Ch. 10.1 (ASTM D473) or Ch. 10.8 (ASTM D4807)	Water and Sediment combined must not exceed 0.50% volume.
Operations/Engineering		
Pour Point (°C)	ASTM D5853	
Auto-Ignition Temperature (°C)	ASTM E659	As required on SDS.
Reid Vapour Pressure (kPa absolute at 37.8.°C)	ASTM D323	< 103 kPa
Vapour Pressure (VPCR _{4:1}) (kPa at 37.8 °C)	ASTM D6377	
Simulated Distillation (mass % distilled)	ASTM D7169 or extended D2887	Attach SIMDIST report
Restricted or Special Handling		
Organic Chlorides (weight ppm)	ASTM D4929	Less than 1ppm (detection limit of procedure)
Olefins (weight ppm)	H ¹ -NMR	> 1% may require special handling.
Salt Content (weight ppm)	ASTM D3230 or D6470	
Neutralization Number (mg KOHg)	ASTM D664	< 1.3 will be considered "Low TAN".
Metals (weight ppm)	ASTM D5708	
1) nickel		
2) vanadium		
3) iron		

1. Where a product blend may change to meet seasonal reference temperature requirements (or for any other reason), density and viscosity data shall be submitted for minimum, maximum and typical blends.

Results are to be submitted as a signed third party Certificate of Analysis.

Applicant shall use most recent version of cited standards.

Carrier reserves the right to independently test and confirm the commodity's characteristics.