

Growth, Enterprise and Trade Petroleum Branch 360-1395 Ellice Ave, Winnipeg MB R3G 3P2 T 204-945-6577 F 204-945-0586 www.manitoba.ca

May 6, 2016

Mr. Sam Stephenson Vice-President, Engineering and Construction Tundra Energy and Marketing Limited 3100, 715 – 5th Avenue S.W. Calgary AB T2P 2X6

Re: Approval to Modify Pipeline Operation Licence No. 2015-03 Tundra Energy Marketing Limited – Replace Watercourse Crossings

The Branch has received your application dated March 1, 2016 to modify the Pipeline Operating Licence 2015-03, to replace the watercourse crossings at the following three locations:

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LOCATION	LINE NUMBER	WATERCOURSE	FROM	ТО
6-27-10-26WPM	8737/RL-01	Scallion Creek	10-25-10-26WPM	6-27-10-26WPM
6-10-11-26WPM	1149/SC-01	Little Scallion Creek	5-15-11-26WPM	5-27-10-26WPM
4-22-11-26WPM	528/SC-02	Scallion Creek	5-27-11-26WPM	5-15-11-26WPM

The submission to modify the said licence is hereby approved. The Minister's authority under Subsection 150(1) of the Act, pipeline modification, is delegated to the Director pursuant to Order in Council 384/2001.

Construction may start in accordance to the application and the conditions of this letter as follows:

1) Method of Construction: Directional Drilling:

Adhere to national standards on directional drilling. An Emergency Contingency Plan shall be created to address spills and creation of inadvertent returns, (frac-out) emergency procedures. Any fisheries concerns associated with the crossings should be addressed. All disturbed areas must be restored to pre-construction conditions. A 15m buffer zone shall be observed from the construction site to the edge of the riparian area. Prior to release, the site shall be inspected by the Petroleum Branch staff to determine if the rehabilitation work is deemed acceptable.

2) Method of Construction: Open-Cut Construction:

If directional drilling will not be used as a construction method, immediately contact Bruno Bruederlin at 1-204-724-4416 at the regional Wildlife and Fisheries, Laureen Janusz at 1-204-793-1154 at the head Wildlife and Fisheries office as well as the Petroleum Branch. The following conditions apply to open-cut construction:

a) No in stream work will be permitted between April 1st and June 30th of any year. All other undertaken work must be in dry conditions and cease during high precipitation events.

- b) Entry and exit holes are to be located outside of the 15m Riparian area. All affected areas must be rehabilitated including parking areas. The bed and bank must be contoured to resemble pre-construction dimensions.
- c) Post construction monitoring is to be completed as well as in the Spring following construction and after all major precipitation events until the crossings are stabilized and a report on their findings is accepted by Wildlife and Fisheries.
- d) A Live Fish Handling Permit to salvage any fish or mussels within the project area prior to construction must be obtained.
- e) Adhere to the Aquatic Invasive Species Regulation under The Water Protection Act. with respect to requirements for cleaning water related equipment and conveyances.
- 3) The permitee shall design and construct the pipeline modifications in accordance with the most recent version of CSA Standards Z662 Oil and Gas Pipeline Systems, Z245.1 Steel Line Pipe and other applicable standards and specifications, drawings, information and data set forth in the application.
- 4) The permittee shall obtain the approval of the owner and any occupant in accordance with Subsection 151 (2) of the Oil and Gas Act, prior to entering on any land for the purpose of the modification.
- 5) The permittee shall carry out all excavations in accordance to the Manitoba Labour and Immigration Guidelines for Excavation work. An excavation permit shall be obtained from the Virden District office.
- 6) The permittee shall develop and implement an Emergency Response Plan for the modification work. A copy of this plan shall be presented to the Virden District Office prior to the start of construction.
- 7) The permittee may require authorization under the Water Rights Act for the withdrawal of water for hydrostatic testing and for discharge of hydrostatic test water.
- 4) The permittee shall notify the Virden office Petroleum Branch no less than 7 days prior to commencing construction and immediately in the event of an accident.
- 9) The permit shall expire March 1, 2017 at 4:00 p.m. An extension may be granted if requested prior to the expiry date.

The Petroleum Branch provides a 24 hour on call service. If an off hour emergency arises, please call 1-204-748-4260. If you have any questions, please contact Stacy McBride, Acting Chief Petroleum Engineer.

Sincerely,

Keith funder

Keith Lowdon Director

SM/jg

c. Inspection Petroleum Branch Winnipeg Office