

August 12, 2016

LNG Canada Development Inc.
400 – 4th Ave SW
Calgary, Alberta T2P 0J4

Attention: Scot Mackillop

RE: Permit Amendment

Date Amendment Issued: August 12, 2016

Application Determination #: 100100061

Amendment #: 1

Road Name : Central Haul Road

Road # 04164

Location: within REM DL 6051 and DL 6058

PERMISSIONS

Oil and Gas Activities Act

1. The BC Oil and Gas Commission (the “Commission”), under section 31(7) of the *Oil and Gas Activities Act*, hereby grants an amendment to the permit and any associated authorizations referenced above, subject to the original permit, any subsequent amendments and any additional or revised conditions as set out herein, as follows:
 - (1) Increase in area by 0.24ha from 3.93ha to 4.168ha.
 - (2) The permissions and authorizations granted under this permit are limited to the area described in construction plan Job No: 64-04 Central Haul Road, FILE NAME: 04-052-001_REVA, revision 0, dated July 12, 2016 (the “construction plan”) by LNG CANADA as submitted to the Commission in the permit amendment application dated July 15, 2016 (hereinafter referenced together as the “operating area”).

CONDITIONS

2. Within 60 days of the completion of construction activities under this permit, the permit holder must submit to the Commission a post-construction plan as a shapefile and PDF plan accurately identifying the location of the total area actually disturbed under this permit. The shapefile and plan must be submitted via eSubmission.

Clearing:

3. The permit holder is authorized to fell any trees located on Crown land within 1.5 tree lengths of the operating area that are considered to be a safety hazard according to *Workers Compensation Act* regulations and must be felled in order to eliminate the hazard. Trees or portions of these trees that can be accessed from the operating area without causing damage to standing timber may be harvested.

4. Stream and wetland crossings must be constructed in accordance with the methods and any mitigations, as specified in the application.
5. Following initial construction, stream crossings are authorized for necessary road modification or maintenance activities on the operating area except for:
 - (1) construction or replacement of a bridge or major culvert on a S1, S2, S3 or S5 stream;
 - (2) installation of a closed bottom structure in a fish bearing stream; or
 - (3) excavation or grading of a stream bank or stream bed.
6. Stream crossings must be constructed, maintained and deactivated according to the following requirements, as applicable:
 - (1) Only bridges, culverts, ice bridges or snow fills may be constructed at stream crossings.
 - (2) Snow fills must consist of clean snow and may only be located on streams that are dry or frozen to the bottom during the period of construction, maintenance and use. Where periodic thaws are anticipated, culverts must be installed to allow meltwater to pass through. Snow fill and any installed culverts must be removed prior to spring snow melt.
 - (3) Ice bridges on fish bearing streams may only be constructed where sufficient water depth and stream flows prevent the bridge structure from coming in contact with the stream bottom.
 - (4) In-stream activities within a fish bearing stream must occur
 - (a) during the applicable reduced risk work windows as specified in the during the applicable reduced risk work windows as specified in the Region 6 Skeena - Reduced Risk In-stream Work Windows and Measures ;
 - (b) in accordance with alternative timing and associated mitigation recommended by a qualified professional and accepted by the Commission; or
 - (c) in accordance with an authorization or letter of advice from Fisheries and Oceans Canada that is provided to the Commission.
 - (5) Bridge or culvert abutments, footings and scour protection must be located outside the natural stream channel and must not constrict the channel width.
 - (6) Equipment used for activities under this permit must not be situated in a stream channel unless it is dry or frozen to the bottom at the time of the activity.
7. Wetland crossings must be constructed, maintained and removed in accordance with the following:
 - (1) Organic cover within and adjacent to the wetland must be retained;
 - (2) Minimize erosion or release of sediment within the wetland;
 - (3) Any padding materials must be placed on the wetland surface only and must not be used for infilling;
 - (4) Any padding materials must be removed as soon as practicable following construction, considering weather and ground conditions; and
 - (5) The wetland, including banks and bed, must be restored, to the extent practicable, to the condition that existed before the crossing was initiated.

Archaeology:

8. If artifacts, features, materials or things protected under section 13(2) of the Heritage Conservation Act are identified the permit holder must, unless the permit holder holds a permit under section 12 of the Heritage Conservation Act issued by the Commission in respect of that artifact, feature, material or thing:

- a. immediately cease all work in the vicinity of the artifacts, features, materials or things;
- b. immediately notify the Commission and the Archaeology Branch of the Ministry of Forests, Lands and Natural Resource Operations
- c. refrain from resuming work in the vicinity of the artifacts, features, materials or things except in accordance with an appropriate mitigation plan that has been prepared in accordance with the Heritage Conservation Act and approved by the Archaeology Branch of the Ministry of Forests, Lands and Natural Resource Operations.

ADVISORY GUIDANCE

This amendment forms an integral part of your permit(s) and should be attached thereto.



Justin Anderson
Authorized Signatory
Commission Delegated Decision Maker

pc: WorleyParsons
Application Determination#.: 100100061



July 4, 2016

LNG Canada Development Inc.
400 – 4th Avenue SW
Calgary, Alberta
T2P 0J4

RE: Road Permit

Date of Issuance: July 4, 2016

Transition of Non-Status Roads to OGAA Road Permit under the implementation of OGRR.

Commission No.: 9644498

Road Permit No.: 7506

PERMISSIONS

1. The BC Oil and Gas Commission ("the Commission"), under section 25 (1) of the *Oil and Gas Activities Act* hereby permits the holder to construct and maintain an oil and gas road, subject to the following conditions:
 - (1) The permissions and authorizations granted by this permit are limited to the area described in survey plan; 407021-09148-64-02_CENTRAL-HAUL_ROAD_PROJECT_MAP_v10_2_REV0, Revision 0, dated June 23, 2016, by Worley Parsons as submitted to the Commission in the transition application dated June 23, 2016 (hereinafter referenced as the "operating area").
 - (2) Permission to construct is limited to required modifications within the operating area except as otherwise restricted by this permit.

CONDITIONS

2. The permit holder must ensure that any Crown land within the operating area is maintained in a condition so as to minimize hazards, including but not limited to hazards associated with storage of materials and equipment.
3. The permit holder must ensure that any Crown land within the operating area is free of garbage, debris and unused equipment.
4. Following initial construction, stream crossings are authorized for necessary road modification or maintenance activities on the operating area except for
 - (1) construction or replacement of a bridge or major culvert on a S1, S2, S3 or S5 stream;
 - (2) installation of a closed bottom structure in a fish bearing stream; or
 - (3) excavation or grading of a stream bank or stream bed.
5. Stream crossings must be constructed, maintained and deactivated according to the following requirements, as applicable:
 - (1) Only bridges, culverts, ice bridges or snow fills may be constructed at stream crossings;
 - (2) Snow fills must consist of clean snow and may only be located on streams that are dry or frozen to the bottom during the period of construction, maintenance and use. Where periodic thaws are anticipated,

culverts must be installed to allow meltwater to pass through. Snow fill and any installed culverts must be removed prior to spring snow melt;

- (3) Ice bridges on fish bearing streams may only be constructed where sufficient water depth and stream flows prevent the bridge structure from coming in contact with the stream bottom;
 - (4) Water applied to construct an ice bridge on a water body must be sourced in accordance with the *Water Sustainability Act* unless
 - (a) the water body is a stream with a stream channel width of at least 5 metres and is not designated as a sensitive stream under the *Fish Protection Act*, or has a riparian class of W1, W3, or L1,
 - (b) the water is sourced from the same water body proximal to the location on which the ice bridge is constructed,
 - (c) the water body is not within the boundaries of a public park,
 - (d) pump intakes do not disturb beds of streams or wetlands and are screened with a maximum mesh size and approach velocity in accordance with the Fisheries and Oceans Canada Freshwater Intake End-of-Pipe Fish Screen Guideline, and
 - (i) where the water body is a stream, the flow of water in the stream at the time and location of pumping exceeds 60 litres per second and the instantaneous pumping rate does not exceed 1% of the water flowing in the water body at the time and location the pumping occurs, or
 - (ii) where the water body is a lake or pond, the cumulative volume of water withdrawn does not exceed 10 cm of lake or pond depth, calculated as the product of lake or pond surface area x 10 cm;
 - (5) Records of water withdrawal and corresponding streamflow measurements are maintained by the permit holder and provided to the Commission upon request;
 - (6) In-stream activities within a fish bearing stream, lake or wetland must occur:
 - (a) during the applicable reduced risk work windows as specified in the Skeena Region Reduced Risk In-stream Work Windows and Measures,
 - (b) in accordance with alternative timing and associated mitigation recommended by a qualified professional and accepted by the Commission, or
 - (c) in accordance with an authorization or letter of advice from Fisheries and Oceans Canada that is provided to the Commission;
 - (7) Bridge or culvert abutments, footings and scour protection must be located outside the natural stream channel and must not constrict the channel width;
 - (8) Equipment used for activities under this authorization must not be situated in a stream channel unless it is dry or frozen to the bottom at the time of the activity.
6. Wetland crossings must be constructed, maintained and removed in accordance with the following:
- (1) Organic cover within and adjacent to the wetland must be retained;
 - (2) Minimize erosion or release of sediment within the wetland;
 - (3) Any padding materials must be placed on the wetland surface only and must not be used for infilling;
 - (4) Any padding materials must be removed as soon as practicable following construction, considering weather and ground conditions; and

- (5) The wetland, including banks and bed, must be restored, to the extent practicable, to the condition that existed before the crossing was initiated.
7. For any oil and gas roads, or portions thereof, that are located within the Agricultural Land Reserve, the permit holder must ensure that when the land is no longer required for the oil and gas activity, the permit holder must appropriately deactivate and further must reclaim the disturbed area in accordance with Schedule B or any other condition as set by the Commission and submit a Schedule B report to the Commission and the surface landowner(s) upon completion of the reclamation work.

ADVISORY GUIDANCE

1. The permit holder must construct, maintain and deactivate the road in accordance with the Oil and Gas Road Regulation.
2. The permit holder must not close or restrict the use of the road except as provided for in the Oil and Gas Road Regulation.



Tarilee Rauscher
Authorized Signatory
Commission Delegated Decision Maker

pc: Worley Parson
Commission File: 9644498