

February 21, 2023

Cedar LNG Partners (GP) Ltd.
2500-666 Burrard St.
Vancouver, BC V6C 2X8

Attention: Cedar LNG Partners (GP) Ltd.

RE: Determination of Application Number 100116060

Permit holder: Cedar LNG Partners (GP) Ltd.
Date of Issuance: February 21, 2023
Effective Date: February 21, 2023
Application Submission Date: November 4, 2022
Application Determination Number: 100116060
Approved Disturbance Footprint: 14.383 hectares (ha)

AUTHORIZED ACTIVITIES

Pipeline Project No.: 000026099	Segment No.: 1
Associated Oil & Gas Activity No.: 224958, 224959, 224960, 224961, 224962	Type: Deck Site
Associated Oil & Gas Activity No.: 224983, 224984, 224985, 224986, 224987, 224989, 224970, 224971, 224972, 224973, 224974, 224990, 224991, 224992, 224993, 225006, 225019, 225025, 225038, 225039, 225041, 225053, 225054, 225056, 225058, 225060, 225061, 225062, 225064, 225065, 225072	Type: Workspace
Changes In and About a Stream: 0007567	

GENERAL PERMISSIONS, AUTHORIZATIONS AND CONDITIONS

PERMISSIONS

Oil and Gas Activities Act

1. The BC Energy Regulator (the "Regulator"), under section 25 (1) of the *Oil and Gas Activities Act* (OGAA), hereby permits the permit holder referenced above to carry out the following activities, indicated in the Authorized Activities table above, subject to the conditions contained herein, any applicable exemptions and authorizations:
 - a. For the purpose of drilling and operating a well for the purpose of injection of disposal of fluids detailed in the Technical Specification Details tables below.
2. The permissions and authorizations granted under this permit are limited to the area identified in the spatial data submitted to the Regulator in the permit application as identified and dated above; herein after referred to as the 'activity area'.

3. Notwithstanding the above permissions and authorizations, this permit does not authorize the following Associated Oil and Gas Activity(s):

Accesses – 225016, 225069

Deck Sites - 224957, 224963, 224964, 224965, 224966, 224967, 224968, 224969, 225045, 225052, 225095

Workspaces - 224978, 224979, 224980, 224981, 224982, 224988, 224975, 224976, 224977, 224994, 224995, 224996, 224997, 224998, 224999, 225000, 225001, 225002, 225003, 225004, 225005, 225007, 225008, 225009, 225010, 225011, 225012, 225013, 225014, 225015, 225017, 225018, 225020, 225021, 225022, 225023, 225024, 225026, 225027, 225028, 225029, 225030, 225031, 225032, 225033, 225034, 225035, 225036, 225037, 225040, 225042, 225043, 225044, 225046, 225047, 225048, 225049, 225050, 225051, 225055, 225057, 225059, 225063, 225066, 225067, 225068, 225070, 225071, 225073, 225074, 225075, 225076, 225077, 225078, 225079, 225080, 225081, 225082, 225083, 225084, 225085, 225086, 225087, 225088, 225089, 225090, 225091, 225092, 225093, 225094

AUTHORIZATIONS

Land Act

4. The Regulator, pursuant to section 39 of the *Land Act*, hereby authorizes the occupation and use of any Crown land located within the activity area.
 - a. A licence authorized under section 39 of the Land Act for the Crown land portion of this application will follow. The permit holder is subject to the conditions contained in the License.
 - b. The authorization to occupy and use Crown land does not entitle the permit holder to exclusive possession of the activity area.
 - c. The total disturbance within the activity area must not exceed the total approved disturbance footprint as referenced above.

Forest Act

5. The Regulator, pursuant to section 47.4 of the *Forest Act*, hereby authorizes the removal of Crown timber from the activity area under the cutting permits associated with the Master Licence(s) as follows:

Master Licence to Cut No.: M02696

Cutting Permit No.: 4

Timber Mark No.: MTD659

Total New Cut: 14.37ha

Forest District: (DKM) Coast Mountains Natural Resource District

Region: Interior

6. The cutting permits are deemed spent upon the submission of the post-construction plan or upon either the cancellation or expiry of the activities authorized under the permit.

CONDITIONS

Notification

8. Within 60 days of the completion of construction activities under this permit, the permit holder must submit to the Regulator 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.
9. A notice of maintenance activities must be submitted, as per the relevant Regulator process at the time of submission, at least two (2) working days prior to the commencement of any changes in or about a stream associated with maintenance activities.
10. At least ten (10) working days prior to the commencement of any changes in or about a stream associated with maintenance activities, the permit holder must provide a notice of works to any First Nation(s) who may have Aboriginal Interests identified, as per the BC First Nations Consultative Areas Database, within the area in which the works are to occur.
11. The Permit Holder must notify the First Nation(s) copied on this permit/authorization at least 5 (five) working days prior to project commencement.

General

12. The permit holder must not start construction until it has submitted to the Regulator (postpermitrequests@BC-ER.ca) confirmation, by a corporate officer, that a positive final investment (FID) decision has been made for the construction of the Cedar LNG facility.

Environmental

16. Construction activities must not result in rutting, compaction or erosion of soils that cannot be reasonably rehabilitated to similar levels of soil productivity that existed on the activity area prior to the construction activities taking place.
17. Any temporary access must be constructed and maintained in a manner that provides for proper surface drainage, prevents pooling on the surface, and maintains slope integrity.
18. The permit holder must take reasonable measures to ensure that the quality, quantity or timing of flow of the water to any waterworks located within or adjacent to the pipeline right of way and workspace is not materially adversely affected. If it is not practicable to avoid such an effect, you must:
 - a. take all reasonable measures to minimize the adverse effect;
 - b. provide notice to the owner or user of the waterworks before or as soon as practicable following any adverse effect; and
 - c. for the period of adverse effect, provide the owner or user of the waterworks with an alternate supply of water of equal or better quality.
19. Approved activities must not cause a material adverse effect on the quality, quantity or natural timing of flow of water in an aquifer.

Clearing/Forest Act

20. The permit holder is permitted to fell any trees located on Crown land within 1.5 tree lengths of the activity 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 activity area without causing damage to standing timber may be harvested.
21. Stumpage will be calculated in accordance with the Interior Appraisal Manual as amended from time to time. In the current version of the Interior Appraisal Manual, stumpage will be determined in accordance with Table 6-3.
22. The holder of the cutting permit must pay to the government, stumpage and any waste billing determined in accordance with the terms of this authorization.
23. The authorized cutting permit does not grant the permit holder the exclusive right to harvest Crown timber from the activity area. Authority to harvest some or all of the timber may be granted to other persons. The permit holder's right to harvest timber applies to any timber found on the site at the time they undertake harvesting activities.
24. All harvested Crown Timber must be marked with the cutting permit's associated Timber Mark.
25. Any waste assessments applied under the Master Licence to Cut are subject to the merchantability specifications and monetary waste billing requirements in the Provincial Logging Residue and Waste Manual specific to the region associated with the Cutting Permit authorization.

Water Course Crossings and Works (WCCW)

26. Stream, lake, and wetland crossings must be constructed in accordance with the methods and any mitigations, as specified in the application.
27. Construction or maintenance activities within a fish bearing stream or wetland must occur:
 - a. during the applicable reduced risk work windows as specified in the Skeena Region - Reduced Risk Work Windows;
 - b. in accordance with alternative timing and associated mitigation recommended by a qualified professional and accepted by the Regulator; or
 - c. in accordance with an authorization or letter of advice from Fisheries and Oceans Canada that is provided to the Regulator;

If activities are to occur in accordance with b or c above, the documentation must be submitted to the Regulator prior to commencement of activities.

28. At any time, the Regulator may suspend instream works authorized under this permit. Suspensions on instream works will remain in place until such time as the Regulator notifies permit holders that works may resume. Reasons for suspension of works may include, but are not limited to, drought conditions and increased environmental or public safety risks.
29. 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.
30. The permit holder must ensure any instream works related to maintenance are planned and overseen by a qualified professional. This individual must assess and determine whether planned works pose a risk to any of the features listed below, and is responsible for developing and implementing mitigation measures to reduce any potential impacts on these features, as required:
 - d. fish or important fisheries habitat;
 - e. species identified as special concern, threatened, or endangered under the federal *Species at Risk Act*; or
 - f. species identified by Order as a species at risk under the *Forest and Range Practices Act* or the *Oil and Gas Activities Act*.

This assessment must be provided to the Regulator upon request.

WCCW Pipeline

31. Following initial construction, stream, lake and wetlands crossings are authorized for necessary pipeline maintenance activities on the activity area except for:
 - a. works within the boundary of a provincial park;
 - b. stream bank or stream bed revetment works in a stream classified as S1, S2, S3, S4 or S5;
 - c. pipe replacement within the stream channel where the original application specified a trenchless crossing method and the planned works involve a trenched crossing method;
 - d. permanent alteration of a stream bank;
 - e. works within a Temperature Sensitive Stream established by order under s. 27 of the Environmental Protection and Management Regulation; or
 - f. works within a Fisheries Sensitive Watershed established by order under s. 28 of the Environmental Protection and Management Regulation.
32. Open cut crossings and works within streams, lakes or wetlands must be planned and conducted in accordance with the following requirements:
 - a. an open cut of a stream classified as S1, S2, S3 or S4 must not occur, unless the stream is frozen to its bed or is completely dry with no evidence of subsurface flow;
 - b. impacted Riparian Management Areas of an open cut of a stream must be restored, to the extent practicable, by re-vegetating any exposed soil on the Riparian Management Areas using seed or vegetative propagules of an ecologically suitable species that
 - i. promote the restoration of the wildlife habitat that existed on the area before the construction was initiated, and
 - ii. stabilize the soil if it is highly susceptible to erosion;
 - c. unless otherwise authorized by Fisheries and Oceans Canada, spawning gravels must not be disturbed when reeds that contain eggs or alevins are present. The authorization must be provided to the Regulator; and
 - d. channels, banks and beds of streams, including any disturbed stable natural material must be restored, to the extent practicable, to the structure and conditions that existed before the crossing construction was initiated.
33. Flow isolation crossings and works must be planned and conducted in accordance with the condition above regarding open cut crossings, and the following additional requirements:

- a. construction of the crossing or works, including the location and operation of any equipment, must be isolated from water flowing in the stream;
- b. water from flumes, pump-arounds, diversions, or other methods must be released to downstream areas in a manner that avoids erosion or sediment release;
- c. pump intakes must not disturb beds of fish bearing streams, except as necessary to ensure safe installation and operation of equipment, and must be screened with maximum mesh sizes and approach velocities in accordance with the Fisheries and Oceans Canada 'Interim code of practice: End-of-pipe fish protection screens for small water intakes in freshwater'; and
- d. water flows downstream of in-stream construction sites must be maintained at volume and discharge consistent with upstream flows.

WCCW Mechanical

34. Mechanical stream crossings must be constructed, maintained and deactivated according to the following requirements, as applicable:

- a. To facilitate construction of a crossing, a machine is permitted to ford the stream a maximum of one time in each direction at the crossing location.
- b. Only bridges, culverts, ice bridges or snow fills may be constructed at stream crossings;
- c. The permit holder must ensure that permanent bridges are designed and fabricated in compliance with:
 - i. the Canadian Standards Association Canadian Bridge Design Code, CAN/CSA-S6; and
 - ii. soil property standards, as they apply to bridge piers and abutments; set out in the Canadian Foundation of Engineering Manual.
- d. Except with leave of the Regulator, the permit holder must ensure that
 - i. culverts are designed and fabricated in compliance with the applicable:
 - a. Canadian Standards Association CSA G401, Corrugated Steel Pipe Products; or
 - b. Canadian Standards Association Standard CSA B1800, Section B182.8, Plastic Non-pressure Pipe Compendium; or
 - ii. any pipe installed in lieu of a culvert is of at least equivalent standard and strength as any culvert as specified above.
- e. Except with leave of the Regulator, the permit holder must ensure that bridges or culverts meet the criteria set out in i., ii. or iii. below:
 - i. the bridge or culvert is designed to pass the highest peak flow of the stream that can reasonably be expected within the return periods set out in Column 2 of the table below for the period the permit holder anticipates the structure will remain on site, as set out in Column 1 of the table below:

Anticipated period crossing structure will remain on site	Peak flow period
Bridge or culvert, 3 years or less	10 years
Bridge other than a bridge within a community watershed, more than 3 years but less than 15	50 years
Bridge within a community watershed, more than 3 years	100 years
Bridge, 15 years or more	100 years
Culvert, more than 3 years	100 years

- ii. the bridge, or any component of the bridge:
 - a. is designed to pass expected flows during the period the bridge is anticipated to remain on the site;
 - b. is constructed, installed and used only in a period of low flow; and
 - c. is removed before any period of high flow begins.
- iii. the culvert;

- a. is a temporary installation, and the permit holder does not expect to subsequently install a replacement culvert at that location;
 - b. is not installed in a stream, when the stream contains fish;
 - c. is sufficient to pass flows that occur during the period the culvert remains on the site;
 - d. is installed during a period of low flow; and
 - e. is removed before any period of high flow begins.
- f. Bridge or culvert abutments, footings and associated scour protection must be located outside the natural stream channel and must not constrict the channel width.
- g. Wetland crossings must be constructed, maintained and removed in accordance with the following:
- i. organic cover within and adjacent to the wetland must be retained;
 - ii. minimize erosion or release of sediment within the wetland;
 - iii. any padding materials must be placed on the wetland surface only and must not be used for infilling;
 - iv. any padding materials must be removed as soon as practicable following construction, considering weather and ground conditions; and
 - v. the wetland, including banks and bed, must be restored, to the extent practicable, to the condition that existed before the crossing was initiated.

Archaeology

35. Archaeology site(s) GaTe-20 must be avoided by construction crews.
36. No construction activities are authorized in the vicinity of archaeology site(s) GaTe-9, GaTe-11, GaTe-12, GaTe-13, GaTe-3, GaTe-10 without the issuance of a site alteration permit, pursuant to the terms under Section 12.4 of the *Heritage Conservation Act* and as approved by the BC Energy Regulator.
37. If an artifact, feature, material or thing protected under the *Heritage Conservation Act* is identified within the activity area, the permit holder must, unless the permit holder holds a permit under Section 12.4 of the *Heritage Conservation Act* issued by the BC Energy Regulator 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 BC Energy Regulator; and
 - c. Resume work in the vicinity of the artifacts, features, materials or things in accordance with direction from the BC Energy Regulator.
38. Prior to the commencement of construction activities the permit holder must:
- a. Complete an archaeological assessment of the activity area in accordance with applicable requirements of the *Heritage Conservation Act*, and
 - b. Complete and submit to the BC Energy Regulator an acceptable report on the results of the assessment.
39. If the report required under the condition above recommends any further assessment work on an area, the permit holder must not begin construction activities on that area until the further assessment is completed.

ACTIVITY SPECIFIC DETAILS, PERMISSIONS AND CONDITIONS

PIPELINES

Land Area Number: 100019716

Pipeline Project Number: 000026099

TECHNICAL SPECIFICATION DETAILS

Seg No.: 1	From: D-036-B/103-I-02 To: B-076-J/103-H-15
Flow Direction: Uni-Directional	Maximum Operating Pressure (kpa): 13375
Product: Natural Gas - Sweet	Max H2S (mol%): 0.002
Installation Number(s): 1, 2, 3, 4	

Technical Pipeline Permissions

40. Piping & Instrumentation Diagram(s) submitted by Cedar LNG Partners (GP) Ltd.:
- P3.01-2B-00001, Revision D, dated 10/04/2022,
 - P45.01-2B-00001, Revision C, dated 05/04/2022,
- Changes may be made to pigging design, and to above ground valves and piping, provided that:
- a. the changes do not affect direct connections to pipelines and facilities;
 - b. there are no changes to approved pressure protection, H2S protection or isolation;
 - c. there is no substantive impact to any aspect of the project that was included in the consultation; and
 - d. the design and operation of the pipeline continues to meet all regulatory requirements and the requirements of CSA Z662.

All permissions for this activity are subject to the following conditions:

Pipeline Conditions

41. If the pressure test is to exceed 100% specified minimum yield strength (SMYS) of the pipe at any point, the permit holder must send the BC Energy Regulator a pressure-volume plot for the pressure test by email to OGCPipelines.Facilities@bc-er.ca.
42. At least 2 days prior to pipeline stringing-activities in the field, the permit holder must contact the Regulator via email at OGCPipelines.Facilities@bc-er.ca, referencing AMS Application Determination #100116060.
43. At least 45 days prior to commencement of field welding of the pipeline, the permit holder must submit to the Regulator, the following:
- a. the welding procedure specification, procedure qualification record, and welder procedure qualification.
 - b. an assessment that includes specific measures incorporated in design and construction methods, materials testing and integrity management following startup to mitigate risk associated with undermatched girth welds, that has been signed off by a professional engineer.

These documents must be sent to OGCPipelines.Facilities@bc-er.ca, referencing AMS Application Determination # 100116060.

44. At least 45 days prior to pipe stringing-activities, the permit holder must submit, to the Regulator, the following:
- a. The design measures to provide control of fracture propagation as per clause 5.2.2.3 in CSA Z662
 - b. The results of seismic study, factored in the design of the pipeline, that has been completed by a qualified specialists.

These documents must be sent to OGCPipelines.Facilities@bc-er.ca, referencing AMS Application Determination # 100116060.

45. Within 12 months of commencement of operation of this pipeline, the permit holder must submit to the Regulator the results and interpretation of a high resolution in-line inspection tool run to establish an accurate position of the pipeline (GEOPIG) and to detect pipe deformation and defects. This must be sent to OGCPipelines.Facilities@bc-er.ca, referencing AMS Application Determination # 100116060.
46. At least 45 days prior to pipe stringing-activities in areas where geohazard(s) are present, the permit holder must submit to the Regulator:
- a. a geohazard assessment that includes:

- i. a description of the geohazard(s) identified that have reasonable probability of impacting the pipeline, with the location of each geohazard illustrated on either a map or in a table; and
 - ii. specific design measures, such as materials to be used, installation procedures, protective structures, depth of cover, and monitoring that will be implemented to mitigate the geohazard(s) identified in (i); and
- b. a field changes manual for geohazards that includes:
- i. criteria for measures, including those identified in a(ii) above, that will be implemented to mitigate any additional geohazards identified during construction; and
 - ii. qualification requirements for field staff who will implement the field changes manual.

These documents must be sent to OGCPipelines.Facilities@bc-er.ca, referencing AMS Application Determination # 100116060.

47. At least 45 days prior to field installation of the pipelines on the aerial crossing, the permit holder must submit to the Regulator the results of the pipeline stress analysis for the portion of the pipeline on the aerial crossing. This must be sent via email to OGCPipelines.Facilities@bc-er.ca, referencing AMS Application Determination # 100116060.

ADVISORY GUIDANCE

1. Construction Plan - 235310408801CON002_R0_Pipeline.pdf is for the permit holder's internal reference only and was not reviewed as a decision tool for this permit, nor does it form an integral part of this permit.
2. Instructions for submitting notice of construction start, as required by regulation, can be found in the Oil and Gas Activity Operations Manual on the BCER's website.
3. The permit holder should be aware that there may be First Nation's traditional, cultural, or spiritual activities occurring concurrently with maintenance activities, as well as areas of current use or cultural resources that overlap the activity area. All reasonable efforts should be made to minimize interference with those activities while carrying out the activities authorized herein.
4. Appropriate tenure may be issued upon acceptance of the post-construction plan. Submission of the original application and submission of the post-construction plan is considered an application for all subsequent applicable *Land Act* tenures. Upon the Regulator's acceptance of the post-construction plan no further applications for replacement tenure are required.
5. Temporary access is intended to be short term access to facilitate construction of an oil and gas activity. It is not intended for sustained use and is not constructed to oil and gas road standards.

All pages included in this permit and any attached documents form an integral part of this permit.



Shannon Weatherill
Director, Authorizations
BC Energy Regulator Delegated Decision Maker

Copied to:

First Nations – Haisla Nation Council
Landowners/Rights Holders
Ministry of Forests District Office - (DKM) Coast Mountains Natural Resource District
Work Safe BC