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Canada

March 12, 2024

VIA EMAIL

Lawrie Gluck
Manager – Natural Gas
Ontario Energy Board
2300 Yonge Street, 27th Floor
Toronto, ON M4P 1E4

Dear Lawrie Gluck:

Re: Ontario Energy Board (OEB) Information Request
EB-2022-0086: Dawn to Corunna Replacement Project Post Construction Report

On November 3, 2022, the OEB issued its Decision and Order for the above noted proceeding which granted Enbridge Gas Inc. (Enbridge Gas) leave to construct the Dawn to Corunna Replacement Project (Project).

On September 19, 2023 and November 21, 2023, the OEB requested information from Enridge Gas via letters in order to assist in its review of a complaint received from the Canadian Association of Energy and Pipeline Landowners Associations – Dawn Corunna Landowner Committee (CAEPLA) related to construction activities for the Project, and specifically the construction activities that occurred in wet weather. Enbridge Gas provided responses to these information requests on October 3, 2023 and December 12, 2023, respectively.

On February 15, 2024, pursuant to the OEB's Condition of Approval 7 (a) in the aforementioned Decision and Order, Enbridge Gas provided the OEB with a post construction report within three months of the in-service date of the Project (Report).

On February 21, 2024, Enbridge Gas received further requests for information from the OEB regarding information provided in the Report, specifically related to complaints received from landowners regarding working in wet weather conditions, Enbridge Gas's adherence to its wet soil shut down policy, and potential lasting negative impacts on the land from work on wet subsoils. Please see below for the OEB's Information Requests and Enbridge Gas's responses:

OEB Information Request

1. OEB staff would like to get a sense of whether multiple complaints were made by the same landowners. How many different landowners expressed concerns about Enbridge Gas working in wet weather conditions?

Enbridge Gas Response

1. There were 103 complaints received in total, from 18 different landowners, related to Enbridge Gas working in wet weather conditions.

OEB Information Request

2. OEB staff would like to understand Enbridge Gas's rationale for not continuously following its wet soil shut down policy. Why was it acceptable for Enbridge Gas to stop following its wet soil shut down policy with respect to work on wet subsoils?

Enbridge Gas Response

2. Enbridge Gas adhered to its wet soil shut down policy.

   The Letter of Understanding (LOU), agreed to and signed by Enbridge Gas and the affected landowners, specifies in Schedule 6 - Wet Soils Shutdown that Enbridge's Environmental Guidelines for Construction, Section 5.18 - Wet/Thawed Soil (Aug 30, 2020) shall apply to pipeline construction, repair and maintenance on agricultural lands. These Guidelines are provided as Attachment 1 to this letter and allow for work on wet subsoils if mitigation measures are utilized to reduce impacts. Construction crews mitigated impacts to the subsoils by delaying certain activities (e.g., stringing of pipe) even though the Guidelines allowed for the activities to proceed. When rutting became evident on the right of way, mitigations to the soil impacts were addressed by further restricting access, installing rig mats or applying temporary gravel roadways.

   When construction occurred on wet subsoils, Enbridge Gas land agents notified the affected landowners that the wet soil shutdown policy would be followed. This allowed the landowners to be compensated for the work being undertaken in less than desirable conditions as stipulated in the LOU.

OEB Information Request

3. How will Enbridge Gas determine whether its work on wet subsoils had a lasting negative impact on the land?

Enbridge Gas Response

3. Enbridge Gas will retain an independent third-party consultant to complete a soil and crop monitoring program over a period of 5 years after final restoration to determine the potential impacts of construction and the effectiveness of soils preservation and restoration techniques.

Please contact the undersigned if you have any questions.

Yours truly,

Evan Tomek Digitally signed by Evan Tomek
Date: 2024.03.12 10:59:21
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Evan Tomek
Advisor, Regulatory Applications – Leave to Construct

Incl: Attachments

Environmental Guidelines for Construction

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5.18 Wet / Thawed Soil

[November 2022]

Document Version Register

VERSION NO.	VERSION DATE	APPROVED BY	SECTION NO. AND TITLE	DETAILS OF VERSION
1	30 April 2020	Les Miskolzie		Harmonized and modularized the Canadian versions of the Enbridge Environmental Guidelines for Construction and the Spectra Environmental Manual for Construction Projects
1.1	07 November 2022	Les Miskolzie		Grammatical and editorial changes.

5.18: Wet / Thawed Soil

Construction during wet or thawing soil conditions can lead to rutting and/or compaction concerns, which may result in a reduction in soil productivity. To limit terrain disturbance and soil structure damage, additional mitigative measures are warranted during periods of wet or thawing conditions. When feasible, work undertaken within areas of wet terrain should be carried out during frozen conditions to minimize effects.

For more detailed information, see the project Environmental Protection Plan (EPP), and consult with the Enbridge Project Environment Lead (PEL) for project-specific wet and thawed soil requirements and considerations.

GENERAL MITIGATION MEASURES

The following mitigation measures apply to all construction activities:

- **Minimize Disturbance**: Minimize disturbance in areas of wet terrain by:
  - Discussing with the PEL when terrain is too wet to continue work (see Inspection and Shut Down Decision and the associated Criteria for Suspension tables (Tables 1 and 2), below);
  - Using approved access around the areas;
  - Narrowing the width of temporary workspace used for the construction activity;
  - Choosing previously disturbed sites;
  - Scheduling construction activity during frozen conditions; and
  - Using ramps to support equipment and minimize rutting.
- **Extra Work Space**: Extra work areas such as areas for equipment staging areas and additional spoil storage will be avoided in areas of wet terrain. If standing water or saturated soils are present, or if construction equipment causes excessive rutting, use low ground-weight construction equipment or operate equipment on timber riprap, prefabricated equipment mats or swamp mats.
- **Snow Management**: Pack snow on the right-of-way (RoW) to increase ground frost penetration. Avoid packing the trench area.
- **Clearing**: Cut trees and other vegetation just above ground level and, if necessary, grind stumps to ground level leaving existing root systems in place. Remove all cut trees and branches and stockpile in an upland area for disposal. Minimize construction traffic in areas of wet terrain to only that required for construction activity. Use upland access roads around wet terrain, wherever available.
- **Corduroy**: Use harvested timber for corduroy wherever equipment support is necessary in wet terrain. It is preferable that nonmerchantable timber be used when feasible. Measures to maintain adequate cross drainage will be implemented where required.
- **Dewatering**: Dewater the trench, if warranted, when laying pipe in muskeg or areas with high water tables. Pump water onto stable and well-vegetated areas in a manner that does not cause erosion or any unfiltered or dirty water to enter a watercourse/wetland or to re-enter the work area. If high inflow is encountered, using clay plugs for trench sections may be required. If dewatering in winter, pump to cleared areas to avoid frost kill of tree species. Monitor water discharge during trench dewatering and suspend, reduce flow, or re-locate discharge if necessary to prevent erosion, sedimentation or flooding.
- **Erosion and Sediment Control**: Install sediment barriers immediately after initial ground disturbance at the following locations:
  - Within the RoW at the edge of the boundary between wetland or watercourses and upland;
  - Along the edge of the RoW, where the RoW slopes toward a wetland or watercourse, to protect any adjacent, off RoW wetlands and watercourses; and,
  - Along the edge of the RoW, as necessary, to contain spoil and sediment within the RoW through wetlands or near watercourses.
- **Trench Plugs**: Install trench plugs and/or seal the trench bottom as necessary to maintain the original hydrology at locations where the pipeline trench may act as a drain.
- **Wetlands**: See 3.4 – Watercourse and Wetland Crossings for wetland-specific considerations and mitigation measures.

INSPECTION AND SHUT DOWN DECISION

Soils are considered to be excessively wet when the planned activity could cause damage to soils either due to: rutting by traffic through the topsoil layer into the subsoil; soil structure damage during soil handling; compaction and associated pulverization of topsoil; and topsoil structure damage due to heavy traffic.

Enbridge will assign EIs with sufficient training and soils-related experience to be able to identify soils that are too wet for a particular activity, and when the soils are sufficiently dry to allow the activity to resume. The decision to continue or suspend particular pipeline construction activities on lands with excessively wet/thawed soils will be made by the Enbridge Construction Lead or designate in consultation with the EI. The EI or Enbridge Construction Lead or designate will employ the criteria presented in Tables 1 and 2, to guide the application of contingency measures. Operators, foremen, activity inspectors, contractors, etc., will be made aware of their responsibility in notifying their supervisors, managers or the EI of poor ground conditions (e.g., pooling water, rutting) to minimize potential lag times before a decision is made.

Where topsoil has been replaced, all heavy traffic is to be suspended during excessively wet/thawed soil conditions (see Tables 1 and 2). A record of the location, timing, and reason for implementation of the procedures to addresswWet/thawed soils will be maintained by the EI. In the event that activities are suspended, the landowner, and the appropriate regulatory authorities, if warranted, will be notified as soon as practical.

TABLE 1 – CRITERIA FOR THE SUSPENSION OF ACTIVITIES DUE TO EXCESSIVELY WET SOIL CONDITIONS

LAND USE(S)	TOPSOIL SALVAGE STATUS	CONSTRUCTION ACTIVITY	SUSPEND ACTIVITY FOR ENVIRONMENTAL ISSUE?
Cultivated, Poorly-sodded Hay, Tame Pasture, Native Prairie and Bush-Pasture	No salvage conducted	Soils handling (topsoil salvage / replacement)	Yes
	No salvage conducted	Pipe stringing	Yes
	Trench and spoil area salvaged	Pipe stringing	No, if stringing truck traffic is restricted to the stripped area
	Trench and spoil, and work area salvaged	Pipe stringing	No
	No salvage conducted	Welding	Yes
	Trench and spoil area salvaged	Welding	Yes
	Trench and spoil, and work area salvaged	Welding	No
	Trench and spoil area salvaged	Trenching	No
	Trench and spoil area salvaged	Lowering-in	Yes
	Trench and spoil, and work area salvaged	Lowering-in	No
	Trench and spoil area salvaged	Backfilling	No, if backfilling with back hoes or clean-up bucket Yes if dozers are used.
	Trench and spoil, and work area salvaged	Backfilling	No
	Trench and spoil area salvaged	Testing	Yes (Testing would not be initiated but would continue if filling with test water has begun)
	Trench and spoil, and work area salvaged	Testing	No
	Topsoil replaced	Testing	Yes (Testing would not be initiated but would continue if filling with test water has begun)
	Topsoil replaced	Clean-up	Yes - heavy traffic not permitted; No - quad traffic likely acceptable
Well-sodded Lands; Hay, Tame Pasture, Native Prairie and Bush-Pasture	No salvage conducted	Soils handling (topsoil salvage / replacement)	Yes
	No salvage conducted	Pipe stringing	Yes
	Blade width salvage conducted	Pipe stringing	No, if stringing truck traffic is restricted to the salvaged area
	Blade width and work area salvaged	Pipe stringing	No
	No salvage conducted	Welding	No - activity to be closely monitored and suspended if warranted
	Blade width salvage conducted	Welding	No - activity to be closely monitored and suspended if warranted
	Blade width and work area salvaged	Welding	No
	Blade width salvage conducted	Trenching	No
	Blade width salvage conducted	Lowering-in	No - activity to be closely monitored and suspended if warranted
	Blade width and work area salvaged	Lowering-in	No
	Blade width salvage conducted	Backfilling	Yes
	Blade width and work area salvaged	Backfilling	Yes
	Blade width salvage conducted	Testing	No
	Blade width and work area salvaged	Testing	No
	Topsoil replaced	Testing	Yes (Testing would not be initiated but would continue if filling with test water has begun)
	Topsoil replaced	Clean-up	Yes - heavy traffic not permitted; No - quad traffic likely acceptable

TABLE 2 – CRITERIA FOR THE SUSPENSION OF ACTIVITIES DUE TO THAWED SOIL CONDITIONS

LAND USE	TOPSOIL SALVAGE STATUS	CONSTRUCTION ACTIVITY	SUSPEND ACTIVITY FOR ENVIRONMENTAL ISSUE?
Cultivated and Poorly-sodded Hay, Tame Pasture, Native Prairie and Bush-Pasture	No salvage conducted	Soils handling (topsoil salvage / replacement)	Yes
	No salvage conducted	Pipe stringing	Yes
	Blade width salvage conducted	Pipe stringing	No - if stringing truck traffic is restricted to the salvaged area
	No salvage conducted	Welding	Yes
	Blade width salvage conducted	Welding	Yes
	Blade width salvage conducted	Trenching	No
	Blade width salvage conducted	Lowering-in	Yes
	Blade width salvage conducted	Backfilling	Yes
	Blade width salvage conducted	Testing	Yes - testing would not be initiated but would continue if filling with test water has begun
	Topsoil replaced	Testing	Yes - testing would not be initiated but would continue if filling with test water has begun
	Topsoil replaced	Clean-up	Yes - heavy traffic not permitted; No - quad traffic likely acceptable
Well-sodded Lands; Hay, Tame Pasture, Native Prairie and Bush-Pasture	No salvage conducted	Soils handling (topsoil salvage / replacement)	Yes
	No salvage conducted	Pipe stringing	Yes
	Blade width salvage conducted	Pipe stringing	No - if stringing truck traffic is restricted to the salvaged area
	No salvage conducted	Welding	No - activity to be closely monitored and suspended if warranted
	Blade width salvage conducted	Welding	No - activity to be closely monitored and suspended if warranted
	Blade width salvage conducted	Trenching	No
	Blade width salvage conducted	Lowering-in	No - activity to be closely monitored and suspended if warranted
	Blade width salvage conducted	Backfilling	Yes
	Blade width salvage conducted	Testing	No
	Topsoil replaced	Testing	Yes - testing would not be initiated but would continue if filling with test water has begun
	Topsoil replaced	Clean-up	Yes - heavy traffic not permitted; No - quad traffic likely acceptable

CONTINGENCY MEASURES

Contingency measures will be implemented once one of the following indicators occurs:

- Rutting of topsoil to the extent that admixing may occur;
- Excessive wheelslip;
- Excessive build-up of mud on tires and cleats;
- Formation of puddles; or
- Tracking of mud as vehicles leave the RoW.

Where weather conditions are such that excessively wet/thawed soil conditions are likely to occur, contingency measures may, if warranted and practicable, be implemented before the above indicators occur.

The contingency measures listed below will be implemented individually or in combination, if warranted, based on site-specific conditions.

Wet Soil Contingency Measures (e.g., during nonfrozen soil conditions)

- Restrict construction traffic, where feasible, to equipment with low-ground pressure tires or wide pad tracks.
- Work only in lower-risk areas, such as well-drained soil or well-sodded lands, until conditions improve.
- Install geotextiles, swamp mats or corduroy constructed from nonsalvageable timber in problem areas. Record all areas where geotextiles, swamp mats or corduroy have been installed.
- Consider salvaging an additional width of topsoil in problem areas.
- Suspend construction until soils dry out.

Thawed Soil Contingency Measures (e.g., during frozen soil conditions)

- Restrict construction traffic, where feasible, to equipment with low-ground pressure tires or wide pad tracks.
- Work only in lower-risk areas, such as frozen or well-drained soils, until conditions improve.
- Postpone construction until evening or early morning when the ground is frozen.
- Install geotextiles, swamp mats or corduroy constructed from nonsalvageable timber in problem areas. Record all areas where geotextiles, swamp mats or corduroy have been installed.
- Employ frost inducement measures such as snow packing or plowing to increase the load-bearing capacity of thawed ground.
- Suspend construction until soils dry out or freeze.

RESUMING CONSTRUCTION

Work can continue when the indicators of excessively wet/thawed soil conditions are no longer evident.