

VANCOUVER FRASER PORT AUTHORITY PROJECT AND ENVIRONMENTAL REVIEW PROJECT PERMIT

PER No.:	17-037
Tenant:	Cargill Ltd
Project:	Power System Upgrade
Project Location:	801 Low Level Road, North Vancouver, BC V7L 1A7
VFPA SID No.:	CNV073
Land Use Designation:	Port Terminal
Applicant(s):	Darrell Mauthe, Project Manager, Cargill Ltd
Applicant Address:	300-240 Graham Avenue, Winnipeg, MB R3C 4C5
Category of Review:	C
Date of Approval:	JUNE 14, 2017
Date of Expiry:	JUNE 30, 2019

PROJECT DESCRIPTION

For the purposes of this project permit, (the Permit), the project is understood to include the following works on Vancouver Fraser Port Authority (VFPA) property:

Construction Activities:

- Construction of a new 69 kV transmission tap from BC Hydro's line to a new substation to be situated on-site. Transmission line will travel overhead and will freespan across a CN Rail Right-of-Way (ROW). Line to include pole installation (to an approximate height of 27.5 m (90 ft.) and a depth of 10 m (32.75 ft.), equipment installation, and conductor stringing;
- Construction of a new 69 kV/12.47 kV Substation enclosed in a single storey building (without basement) measuring 18.2 m (60 ft.) wide x 18.2 m (60 ft.) long x 8.4 m (27.5 ft.) high. Foundation preparation specifics to include:
 - Utilization of soil densification and insertion of stone columns via vibroreplacement to an approximate depth of 18.2 m (60 ft.);
 - Placement of a concrete raft slab, with a maximum excavation depth of approximately 4 m (13 ft.);
- Construction of approximately 90 m (295 ft.) of duct bank in a backfilled trench measuring approximately 2 m (6.5 ft.) deep x 2 m (6.5 ft.) wide, between the proposed substation and Annex 2;
- Construction of four new 12.47kV/600V Unit Substations, by constructing one new electrical room and modifying three existing electrical rooms within the plant;
- Installation of new cable feeds from the new Unit Substations to the plant's existing Motor Control Centres (MCC's) located in various electrical rooms within the plant;
- Approximately 720 m² (7,750 ft²) of new paying;
- Installation of associated exterior and interior lighting systems, including 8 new exterior LED fixtures on the substation at a height of approximately 6.5 m (21.3 ft.);

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• Tie-in to the existing storm sewer (Neptune Terminals ownership) as a means to provide adequate drainage away from the proposed substation building.

Deconstruction Activities

- Decommissioning and dismantling of the existing 69 kV switchyard, including:
 - o Removal of existing substation concrete foundations;
 - Removal of subsurface concrete piles to a minimum depth of 2.0 m (6.5 ft.) below existing surface elevation;
- Removal of the redundant Hydro electrical utility poles and associated infrastructure, including infrastructure between the existing substation connection and the new substation connection.

PROJECT AND ENVIRONMENTAL CONDITIONS

The Vancouver Fraser Port Authority (VFPA) has undertaken and completed a review of the Project in accordance with the *Canada Marine Act* and Section 5 of the Port Authorities Operations Regulations and, as applicable, Section 67 of the *Canadian Environmental Assessment Act*, 2012.

If at any time the Applicant fails to comply with any of the project and environmental conditions set out in the Permit below, or if VFPA determines that the Applicant has provided any incomplete, incorrect or misleading information in relation to the Project, VFPA may, in its sole and absolute discretion, cancel its authorization for the Project or change the project and environmental conditions to which such authorization is subject.

Pursuant to Section 29 of the Port Authorities Operations Regulations, VFPA may also cancel its authorization for the Project, or change the project and environmental conditions to which such authorization is subject, if new information is made available to VFPA at any time in relation to the potential adverse environmental and other effects of the Project.

The following are the project and environmental conditions that must be followed by the Applicant to mitigate potential or foreseeable adverse environmental and other effects.

No.	GENERAL CONDITIONS
1.	This Permit is conditional on a valid tenure agreement with respect to the subject premises being in place. No construction or any other physical activities may commence in the absence of a valid tenure agreement.
2.	This Permit is granted subject to the fulfillment of all other requirements of VFPA, relating to the Project. Furthermore, prior to commencing construction or any other physical activities the Applicant shall ensure that it has complied with all other necessary legal requirements and that all necessary regulatory approvals have been obtained.
3.	This Permit in no way endorses or warrants the design, engineering, or construction of the Project and no person may rely upon this Permit for any purpose other than the fact that VFPA has permitted the construction of the Project, in accordance with the terms and conditions of this Permit.

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- 4. In consideration of the granting of this Permit by VFPA the Applicant agrees to indemnify and save harmless VFPA against any and all actions, claims, loss, damages or other expenses in any way arising or following from or caused by the granting of this Permit or the construction or operation of the Project as contemplated by this Permit.
- The Applicant is responsible for locating all existing site services and utilities including any located underground and to employ best practices and meet applicable code requirements with respect to protection of existing site services and clearance between existing and proposed site services. The Applicant is responsible for repair or replacement of any damage to existing site services and utilities, to the satisfaction of VFPA, that result from construction and operation of the Project.
- 6. The Applicant shall undertake and deliver the Project to total completion in a professional, timely and diligent manner in accordance with the Application submitted by the Applicant and the applicable standards and specifications set out in the sections above entitled Project Description and Information Sources, including the attached plans and drawings numbered PER No. 17-037-A to H. The Applicant shall not carry out any other physical activities unless expressly authorized by VFPA.
- 7. The Applicant shall establish a spill prevention, containment and clean-up plan for hydrocarbon products (including fuel, oil and hydraulic fluid) and any other deleterious substances using standards, practices, methods and procedures to a good commercial standard, conforming to applicable law and using that degree of skill and care, diligence, prudence and foresight which would be reasonably and ordinarily expected from a qualified, skilled and experienced person engaged in a similar type of undertaking under the same or similar circumstances. The Applicant shall ensure that appropriate spill containment and clean-up supplies are available on site at all times and that all personnel working on the project are familiar with the spill prevention, containment and clean-up plan.
- The Applicant shall have due regard to the potential application of the *Migratory Birds Convention Act* (Canada) and/or the *Wildlife Act* (British Columbia). To reduce the risk of Project-related harm to birds and/or their active nests and eggs, the Applicant may wish to avoid certain physical activities during the general bird breeding season, which falls between **April 1 and July 31**, or outside of this time span if occupied nests are present. The Applicant shall exercise all due diligence to avoid causing harm to birds and/or their active nests and eggs.

The Applicant shall also have due regard to nests of those species of birds protected by Applicable Law at all times of the year, regardless of the time of year or whether or not the nests are occupied. The Applicant should, where circumstances warrant, retain the services of qualified environmental professionals to assist in developing and undertaking appropriate bird nest surveys immediately before, during and after the general bird breeding season.

- The Applicant shall cooperate fully with VFPA in respect of any review by VFPA of the Applicant's compliance with these conditions including, without limitation, providing any information or documentation required by VFPA.
- The Applicant shall make a copy of this Permit available to all employees, agents, contractors, licensees and invitees prior to commencing any physical activities. The Applicant shall be solely responsible for ensuring that all such employees, agents, contractors, licensees and invitees comply with these conditions.
- 11. The Applicant shall make available upon request by any regulatory authority (such as a Fishery Officer) a copy of this Permit.

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12.	In addition to the conditions listed in this Permit, the Applicant shall carry out the Project in compliance with the environmental management plan provided with the Application, and in compliance with appropriate best construction industry environmental codes of practice. Where those conditions and codes of practice are in conflict with any listed in this Permit the latter shall prevail. VFPA Environmental Programs should be consulted for clarifications where appropriate.		
13.	The Project shall be monitored by an appropriately qualified environmental professional. The monitor shall be empowered in writing to direct works to ensure compliance with this Permit. Monitoring events shall occur when the environmental monitor deems it appropriate.		
14.	Unless otherwise noted, the Applicant shall submit all documents required for VFPA approval to email: per@portvancouver.com ; fax: 1-866-284-4271 and referencing PER No.17-037.		
	CONDITIONS - PRIOR TO COMMENCING CONSTRUCTION OR ANY PHYSICAL ACTIVITIES	SUBMISSION TIMING (business days)	
15.	The Applicant shall submit signed and sealed drawings for proposed works approved for construction by a professional engineer licensed to practice in the Province of British Columbia.	5 days before commencing construction or any physical activities	
16.	The Applicant shall distribute a construction notice to residents and businesses as shown in the VFPA-provided notification area map describing the works and activities, hours of operation, and contact information. The Applicant shall provide a copy of the draft construction notice for VFPA approval. The Applicant shall copy VFPA when construction notices are distributed.	10 days prior to distribution (the draft notice shall be provided for review) and 10 days before commencing construction or any physical activities (the notice shall be distributed)	
17.	For structures and proposed interior changes that are reviewable under the National Building Code and National Fire Code, the Applicant shall apply for a VFPA Building Permit.	40 days before commencing construction or any physical activities	
	CONDITIONS - DURING CONSTRUCTION OR ANY PHYSICAL ACTIVITIES		
18.	The Applicant shall notify VFPA upon commencement of construction or any physical activities of the Project.		
19.	All general construction and physical activities related to the Project shall be conducted between Monday to Saturday between the hours of 7:00am to 8:00pm . No construction and physical activities shall occur during Sundays or holidays. These hours shall not be modified without prior approval from VFPA.		
20.	The Applicant shall remove all abandoned utilities from the site, both underground and aboveground. At locations of connections to municipal network (i.e. at property lines), the abandoned utilities shall be capped.		

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The Applicant shall remove the switchyard piles down to a minimum of 2.0 m below the 21. existing surface grade. The Applicant shall ensure that all existing switchyard infrastructure (i.e. utilities, concrete 22. slab) with the exception of the switchyard piles (see condition 21) shall be removed from the existing switchyard footprint. In the event that evidence of what is suspected to be an archaeological resource is 23. encountered, the Applicant shall: Immediately stop any activities that might disturb the archaeological resource or the site in which it is contained ("Site"). Not move or otherwise disturb the artifacts or other remains present at the Site. Stake or flag off the Site to prevent additional disturbances. Immediately notify VFPA. The Applicant may place temporary construction trailers on site while this permit remains in 24. effect, provided that the Applicant shall not connect such trailers to any underground utilities without the prior written consent of VFPA which may include, without limitation and at VFPA's discretion, a VFPA Building Permit. The Applicant shall not, directly or indirectly: (a) deposit or permit the deposit of a 25. deleterious substance of any type in water frequented by fish in a manner contrary to Section 36(3) of the Fisheries Act; or (b) adversely affect fish or fish habitat in a manner contrary to Section 35(1) of the Fisheries Act. The Applicant shall ensure that debris and waste material resulting from the Project is 26. contained, collected, and disposed of at suitable upland locations using standards, practices, methods and procedures to a good commercial standard, conforming to applicable law and using that degree of skill and care, diligence, prudence and foresight which would be reasonably and ordinarily expected from a qualified, skilled and experienced person engaged in a similar type of undertaking under the same or similar circumstances. Backfilling of contaminated drill cuttings is not permitted. The Applicant shall ensure that all equipment is in good mechanical condition and 27. maintained free of fluid leaks, invasive species, and noxious weeds. The Applicant shall not conduct refuelling or maintenance activities within 30 metres of any 28.

Canada (DFO) "Land Development Guidelines for the Protection of Aquatic Habitat".

otherwise.

29.

watercourse, or in an area where there is potential for run-off to reach surface water bodies. Fuel and other hydrocarbon inventories shall not be stored in such areas, temporarily or

The Applicant shall carry out all activities in a manner that prevents the release of sediment,

sediment-laden waters, and turbid waters to the aquatic environment. Sediment and erosion control measures should meet or surpass the standards outlined in the Fisheries and Oceans

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- 30. Should contaminated materials be encountered, the Applicant shall ensure that all contaminated materials, including contaminated drill cuttings and equipment wash water, are removed, contained, and disposed of at appropriate off-site facilities using standards, practices, methods and procedures to a good commercial standard, conforming to Applicable Law and using that degree of skill and care, diligence, prudence and foresight which would be reasonably and ordinarily expected from a qualified, skilled and experienced person engaged in a similar type of undertaking under the same or similar circumstances. Suspect materials should be treated as contaminated or stockpiled until their environmental quality has been determined.
- The Applicant shall dispose of any soils excavated from the site that are not suitable for backfill at appropriate off-site facilities in accordance with applicable legislation, guidelines and best management practices.
- 32. Materials brought onto the property to be used for backfilling, site preparation, or other uses shall be from sources demonstrated to be clean and free of environmental contamination.
- The Applicant shall not dewater excavations that have contaminated groundwater present, unless a dewatering plan has been reviewed and accepted by VFPA Environmental Programs.
- The Applicant shall conduct all work associated with the Project involving the use of concrete, cement, mortars and other Portland cement or lime-containing construction materials so as to ensure that sediments, debris, concrete (cured or uncured), and concrete fines are not deposited into the aquatic environment, either directly or indirectly. Water that has contacted uncured or partly cured concrete or Portland cement or lime-containing construction materials, such as the water that may be used for exposed aggregate wash-off, wet curing, equipment and truck washing, etc. shall not be permitted to enter the aquatic environment. The Applicant shall provide containment facilities at the site for the wash-down water from concrete delivery trucks, concrete pumping equipment, and other tools and equipment, as required.
- The Applicant shall manage stormwater and surface runoff using standards, practices, methods and procedures to a good commercial standard, conforming to Applicable Law and using that degree of skill and care, diligence, prudence and foresight which would be reasonably and ordinarily expected from a qualified, skilled and experienced person engaged in a similar type of undertaking under the same or similar circumstances.
- 36. Dust, noise and air emissions associated with construction and operation shall be minimized.
- Air emissions such as vehicle/equipment exhaust, dust and vapours, associated with Project deconstruction, demolition and/or construction as applicable shall be minimized and managed to avoid adverse health, safety, nuisance and other environmental effects on and off site. In this regard, emission control measures shall be implemented as required and may include but are not limited to the following:
 - a) No visible dust or track out beyond the lease boundary; and,
 - b) Onsite speed limit.

More detailed guidance is available in *Best Practices for the Reduction of Air Emissions from Construction and Demolition Activities* prepared for Environment Canada (Cheminfo Services Inc. March 2005).

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- The Applicant shall also:
 - a) Make reasonable efforts to ensure that heavy duty diesel powered road licensed vehicles and engines are model year 2007 or newer;
 - b) Make reasonable efforts to ensure that diesel-powered non-road or off-road equipment is Tier 3 or better, or equivalent for emissions;
 - c) Ensure the use of well-maintained engines and exhaust systems, in good operating order; and,

Ensure that vehicle and equipment idling are limited to the greatest practical and safe extent.

	CONDITIONS - UPON COMPLETION	SUBMISSION TIMING (Business Days)
39.	The Applicant shall notify VFPA upon completion of the Project.	Within 10 days of completion
40.	The Applicant shall provide record drawings, in both AutoCAD and Adobe (PDF) format to VFPA.	Within 40 days of completion
41.	The Applicant shall provide a drawing indicating: a) the location (UTM Coordinates), size, and material of the switchyard piles; and b) the surface elevation to confirm that the piles are cut and removed to a minimum 2.0 m below existing surface grade.	Within 40 days of completion

VFPA reserves the right to rescind or revise these conditions at any time that new information warranting this action is made available to VFPA.

LENGTH OF PERMIT VALIDITY

The construction of the Project must commence by **June 30**, **2018** (the "Commencement Date") and be complete no later than **June 30**, **2019** (the "Expiry Date").

AMENDMENTS

- Details of any material proposed changes to the Project, including days and hours when construction and any physical activities will be conducted, must be submitted to VFPA for consideration of an amendment to this Permit.
- For an extension to the Commencement Date, the Applicant must apply to VFPA in writing no later than 30 days prior to that date.
- For an extension to the Expiry Date, the Applicant must apply in writing to VFPA no later than 30 days prior to that date.

Failure to apply for an extension as required may, at the sole discretion of VFPA, result in termination of this Permit.

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PROJECT AND ENVIRONMENTAL REVIEW DECISION

Project Permit PER No. 17-037 is approved by:

Original Copy Signed

June 14, 2017

GREG YEOMANS
DIRECTOR, PLANNING & DEVELOPMENT

DATE OF APPROVAL

CONTACT INFORMATION

Vancouver Fraser Port Authority (VFPA) 100 The Pointe, 999 Canada Place, Vancouver BC V6C 3T4 Canada Project & Environmental Review

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