



PORT of
vancouver

PROJECT AND ENVIRONMENTAL REVIEW REPORT

PER NO. 17-037 POWER SYSTEM UPGRADE

Prepared for: Director, Planning & Development

June 14, 2017

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		VANCOUVER FRASER PORT AUTHORITY PROJECT AND ENVIRONMENTAL REVIEW REPORT	
PER No.:	17-037		
Tenant:	Cargill Ltd.		
Project:	Power System Upgrade		
Project Location	801 Low Level Road, City of 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		
Recommendation:	That PER No. 17-037 for a power system upgrade be approved.		

1 INTRODUCTION

The Vancouver Fraser Port Authority (VFPA), a federal port authority, manages lands under the purview of the *Canada Marine Act*, which imparts responsibilities for environmental protection. VFPA accordingly conducts project and environmental reviews of works and activities undertaken on these lands to ensure that the works and activities will not likely cause significant adverse environmental effects. This project and environmental review report documents VFPA's project and environmental review of PER No. 17-037: Power System Upgrade (the Project) proposed by Darrell Mauthe working on behalf of Cargill Ltd (the Applicant).

This project and environmental review was carried out to address VFPA's responsibilities under the *Canada Marine Act*, and to meet the requirements of the *Canadian Environmental Assessment Act*, 2012 (CEAA 2012), as applicable. The proposed Project is not a CEAA 2012 "designated project" and an environmental assessment as described in CEAA 2012 is not required. However, VFPA authorization is required for the proposed Project to proceed and in such circumstances, where applicable, Section 67 of CEAA 2012 requires federal authorities to assure themselves that projects will not likely cause significant adverse environmental effects. This review provides that assurance. In addition, VFPA considers other interests, impacts and mitigations through the project and environmental review.

The project and environmental review considered the application along with supporting studies, assessments and consultations carried out or commissioned by the Applicant, as well as other information provided by the Applicant. In addition, this project and environmental review considered other information available to VFPA and other consultations carried out by VFPA. A full list of information sources germane to the review is provided in Appendix B.

This project and environmental review report is NOT a project authorization. It is a prerequisite to the issuance of a project permit (the Permit) and the conclusions described in this report require compliance with the conditions in the Permit.

2 PROJECT DESCRIPTION

The existing electrical system at the Cargill grain terminal (Cargill) dates back to the 1960's and is nearing the end of its service life. Cargill proposes to construct, to the east of the Annex 2 elevator building, a new enclosed 69kV substation building which will accept a new 69kV feed connection

from BC Hydro. This connection is proposed to provide power to four new 12.47kV unit substations, which in turn will provide power to the existing motor control centres.

The primary purpose of the project is to upgrade the existing equipment, provide a safer working environment for on-site personnel, increase efficiency by reducing electrical losses, and lower environmental impact by utilizing modern equipment (PCB-free transformers). There are no impacts to capacities or materials handled at the Cargill terminal.

The existing substation, located 215 metres (705 ft.) to the west of the proposed substation, is proposed to be dismantled and removed, save for the subsurface concrete piles, which are to be removed down to a minimum depth of at least 2.0 m (6.5 ft.) below existing ground elevation, with the remainder left in place.

Cargill's existing electrical overhead line connection to the BC Hydro grid, located to the north of the existing substation, is proposed to be relocated 215 m (705 ft.) to the east, in order to more directly connect to the new substation. The redundant line is proposed to be removed.

2.1 Proposed Works

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 free-span 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 vibro-replacement 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 paving;
- 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.);
- 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:

- 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.

No other utilities are proposed to be added, capped, removed, or abandoned.

The works are proposed to be undertaken over an 18-month period during standard VFPA construction hours of 7 AM to 8 PM Monday to Saturday.

Any increase in traffic due to equipment and material being brought to and from the site will be minimal. Traffic management services to assist trucks entering and leaving the site will be provided as required, and will include re-routing of traffic during partial road closures due to ground densification. Emergency vehicle access will be provided at all times during construction.

Construction equipment includes:

- excavating machinery,
- concrete mixers and pump trucks,
- mobile cranes and boom lifts, as well as
- equipment for mobile drilling, *Vibroflot* soil densification, and compaction activities.

Demolition equipment includes de-oiler pumps, boom lifts, mobile cranes, hydraulic breakers, and excavating machinery.

The anticipated project cost of this work is approximately \$28,300,000.

3 VANCOUVER FRASER PORT AUTHORITY INTERNAL REVIEWS

The following VFPA departments have reviewed the application and have the following project considerations.

3.1 Planning

Construction and demolition impacts are expected to include moderate noise due to soil densification, concrete formwork, steel placement, and foundation removal activities.

Operational impacts are anticipated to be negligible as the new equipment, with the exception of the power transformers, is proposed to be enclosed.

Planning supports the recommendation to approve the Project subject to adherence to the listed project and environmental conditions in the Permit.

3.1.1 Land Use Designation

The proposed use conforms to the designation of "Port Terminal" in Vancouver Fraser Port Authority's Land Use Plan.

3.1.2 Building Permit Requirements

The proposed project, including the substation building, requires review under the 2015 National Building Code and 2015 National Fire Code of Canada. The Applicant is required to obtain a VFPA building permit before proceeding with construction of the substation building and cannot occupy that structure until they have obtained a VFPA occupancy permit. The building permit is currently under review.

3.2 Engineering

The existing 69kV switchyard, which is proposed to be demolished, is in close proximity (4 m) to the existing Canadian National Railway (CNR) rail line to the north and to the Cargill rail line to the south. The switchyard is built on a concrete pad, which is supported by approximately ten (10) subsurface concrete foundation piles. Due to uncertainties involving pile location, depth, and width, and potential extraction impacts on adjacent structures, VFPA Engineering does not require full pile removal at this time.

Engineering has reviewed the application and requires the Applicant to ensure the following:

- The Applicant shall remove all of the switchyard piles down to a minimum of 2.0 m below the existing surface grade;
- The Applicant shall ensure that all existing switchyard infrastructure (i.e. utilities, concrete slab) with the exception of the switchyard piles (see condition 21) shall be removed from the existing switchyard footprint; and,
- The Applicant shall provide a drawing indicating:
 - the location (UTM Coordinates), size, and material of the switchyard piles; and
 - the surface elevation to confirm that the piles are cut and removed to a minimum 2.0 m below existing surface grade.

These are reflected in conditions 21, 22 and 41 in the Permit.

Engineering supports the recommendation to approve the Project subject to adherence to the listed project and environmental conditions in the Permit.

3.3 Transportation

3.3.1 Road

The proposed project was assessed by Transportation Planning to have minimal vehicular transportation impacts during the construction period. If the construction requires any traffic control on municipal streets, the Applicant is responsible for securing all applicable permits/approvals from the adjacent municipality before implementation.

3.3.2 Rail

The existing CNR rail lines to the north of the Cargill lease area, as well as the Cargill-operated rail lines to the south of these are both within VFPA jurisdiction. Given that the present Cargill electrical switchyard is in close proximity to the CNR rail lines, and given that the current and proposed transmission lines travel overhead and span across the CN Rail tracks, Transportation Planning required that the Applicant provide documentation that CNR is in agreement with the proposed crossing.

An agreement in principle between CNR and Cargill dated September 16, 2016 was provided to VFPA. The document states that the proposed overhead 69kV powerline crossing is acceptable

subject to documentation exchange between Cargill and CNR, which will be carried out independently of VFPA. Transportation Planning is satisfied with this agreement.

Transportation Planning supports the recommendation to approve the Project subject to adherence to the listed project and environmental conditions in the Permit.

4 STAKEHOLDER CONSULTATION

The proposed Project was assessed by Planning to have potential impacts to stakeholders and the local community and consultation activities were determined to be required. The following sections describe the stakeholder and public consultation activities undertaken by VFPA and the Applicant as part of the project and environmental review.

4.1 Municipal Consultation

The proposed Project was assessed by Planning to have potential impacts to municipal interests. A referral letter was sent to the City of North Vancouver on March 23, 2017 notifying and requesting any comment from them on the proposed Project.

VFPA did not receive any municipal comments.

The Applicant also contacted the City of North Vancouver Fire Department and received email confirmation from Dave Owens, Assistant Fire Chief, on August 3, 2016 that the Fire Department had no concerns with the proposed project from a fire access perspective.

4.2 Adjacent Tenant Consultation

The proposed Project was assessed by Planning to have potential impacts to adjacent VFPA tenant operations. A referral letter was sent to the following tenants on March 23, 2017 notifying and requesting any comment from them on the proposed Project:

- Canadian National Railway; and,
- Neptune Terminals.

VFPA did not receive any comments from CNR. VFPA received a response with no concerns from Neptune Terminals.

4.3 Community Liaison Group Consultation

The proposed Project was assessed by Project Communications and Planning to be of potential interest to the North Shore Community Liaison Group. The Applicant presented their project to the North Shore Community Liaison Group on January 19, 2017.

VFPA did not receive any comments from the North Shore Community Liaison Group.

5 PUBLIC CONSULTATION

The proposed Project was assessed by Project Communications to have minimal or no potential impacts to community interests upon completion of the project. Therefore public consultation was not required to be conducted by the Applicant during the review.

The proposed Project was, however, assessed by Project Communications to have potential impacts to community interests during construction, such as noise from soil densification and foundation removal. As a result, the Applicant is required to send a construction notice to adjacent residents

and businesses in North Vancouver as shown in the map below. The notification area is within approximately four blocks (500 m) of the project site. The construction notice shall be distributed by the Applicant at least 10 business days prior to the start of the works. The construction notice will be posted on VFPA's and the Applicant's websites. This is condition 16 in the Permit.

Map of notification area



6 ABORIGINAL CONSULTATION

Aboriginal Affairs reviewed the proposed works and determined that adverse impacts to Aboriginal or Treaty rights are not expected. As a result, consultation with Aboriginal groups was not conducted.

7 ENVIRONMENTAL REVIEW

To fulfill its responsibilities under the *Canada Marine Act* and CEAA 2012, VFPA must make a determination on the potential environmental effects of a proposed project on VFPA managed lands and waters prior to authorizing those works to proceed. To make that determination, VFPA considers the residual adverse effects of the project, that is, the effects after mitigation measures

have been taken into account. In addition, should a project be approved, VFPA includes additional environmental conditions in the project permit to further reduce the identified potential impacts.

This section of the project and environmental review report summarizes the environmental review conducted for the project, and provides the environmental review decision in Section 7.4. The environmental review also considered the information provided in the previous sections of this report.

7.1 Scope of Environmental Review

The environmental review includes consideration of the potential environmental effects of the proposed project, taking into account mitigation measures to avoid or reduce those effects. This review considered the project components and physical activities described in Section 2. The temporal scope of the review includes project construction, demolition and operations.

The environmental review considered potential adverse environmental and social effects of the project on 14 environmental components (e.g., species with special status, aquatic species and their habitat, recreational interests, etc.) and from Accidents and Malfunctions. These environmental components are aspects of the biophysical and socio-economic environment considered to have ecological, economic, social, cultural, archaeological, or historical importance.

Section 7.2 summarizes the results of the review.

7.2 Environmental Effects Summary

The following table summarizes the potential environmental effects the project could have on the identified environmental components.

Environmental Component	Potential Adverse Effects?		Overview of Potential Adverse Effects, Mitigation Measures, and Residual Adverse Effects	Significant Residual Adverse Effects?	
	Yes	No		Yes	No
Air quality	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>The installation of a new electrical substation and the demolition of an existing substation is not expected to have a net change in air emissions once operational. There is no increase in air emissions associated with the electrical component of the project, as the electrical load will not increase.</p> <p>During construction, the project will result in air emissions from vehicle and equipment exhaust, and demolition activities. Construction equipment is anticipated to include mobile cranes, excavating machinery, drilling equipment, electric vibroflot equipment, compaction equipment, concrete mixing and pump trucks, and boom lifts. Demolition will be conducted through mechanical means (i.e., jackhammering concrete slabs). The emissions of concern include particulate matter, sulfur dioxide, nitrogen oxide, and carbon dioxide.</p> <p>Mitigation measures will be implemented to reduce potential adverse effects to air quality, including applying water to control dust and installing wheel wash stations to minimize soil track-out. Mitigation measures are reflected in conditions 36 - 38 in the Permit.</p> <p>With mitigation measures in place, residual adverse effects on air quality are predicted to be not significant.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Lighting	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>Permanent exterior lighting will be installed adjacent to the buildings. The lights will be LED and night-sky compliant.</p> <p>Construction will occur during regular construction hours. Temporary lights may be required in the fall and winter, and when constructing the main substation building, duct bank and cable tray. Light spill will be reduced by directing lights downward.</p> <p>With mitigation measures in place, residual adverse effects on adjacent users from lighting are predicted to be not significant.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Component	Potential Adverse Effects?		Overview of Potential Adverse Effects, Mitigation Measures, and Residual Adverse Effects	Significant Residual Adverse Effects?	
	Yes	No		Yes	No
Noise	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>The new substation is not expected to be a perceptible noise source once operational. The site is located within an industrialized and active port area, and the contribution of additional noise to the surrounding area is minimal given the substation is contained within a building.</p> <p>The project involves demolition and construction activities. The noisiest construction activities will be during the soil densification in preparation for the required concrete foundations. Densification by installing stone columns will involve the use of vibro equipment, large drills, and water pumps. Densification activities are expected to occur over the course of 3 weeks, with 4 columns installed per day, requiring 1.5 hours of work (drilling and vibrating) with a 30 minute break between column setup. The equipment is anticipated to generate about 87 dB approximately 10 meters from the equipment, and noise will decrease with distance.</p> <p>The demolition of the existing electrical switch gear will involve jackhammering for a short period.</p> <p>Construction activities are to be conducted between Monday and Friday, during regular construction hours. Any after-hours work will be submitted to VFPA for separate subsequent approval.</p> <p>Mitigation measures are reflected in condition 19 and 36 in the Permit.</p> <p>With the implementation of mitigation measures, the residual adverse effect on noise, if it occurs, is expected to be not significant.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Component	Potential Adverse Effects?		Overview of Potential Adverse Effects, Mitigation Measures, and Residual Adverse Effects	Significant Residual Adverse Effects?	
	Yes	No		Yes	No
Soils	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>There is potential for adverse effects on soil quality from the excavation and reuse of soils on site during construction activities.</p> <p>As outlined in the Environmental Sampling Report, soil sampling was conducted at eight locations to a depth of 3 meters in the areas that are anticipated to require excavation and soil disposal as part of the utility and substation demolition. Two soil samples had LEPH exceed industrial land use standards.</p> <p>Mitigation measures are identified in the Construction Environmental Management Plan. This includes environmental monitoring of excavated soils, isolating and conducting soil sampling of soil suspected of being contaminated, and only reusing non-suspect soil onsite as backfill. A laydown area will include lock block containment cells to temporarily separate and contain soil. Contaminated soil will not be reused onsite.</p> <p>During the ground densification work, the stone columns will be installed by wet top-feed vibro replacement methods, using an air and water drill. All drill cuttings will be contained.</p> <p>During the demolition of the existing substation, hazardous materials (including asbestos-containing materials, lead, silica and mercury) are anticipated to be encountered. All hazardous materials, including waste oils, will be disposed of by a licensed waste hauler. The existing oil filled transformers and circuit breakers have PCBs, and there may be PCBs in the existing oil tanks. The PCB oil will be drained and transported offsite for offsite disposal. The crushed asphalt and concrete will be transported for offsite disposal and not reused onsite.</p> <p>The mitigation measures are reflected in conditions 27, 30, 31, 32 in the Permit.</p> <p>With mitigation measures in place during demolition, there is a low likelihood of residual adverse effects of the project on soil quality. If residual adverse effects do occur they are predicted to be not significant.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Sediments	<input type="checkbox"/>	<input checked="" type="checkbox"/>	The project is not expected to affect sediments.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Groundwater	<input type="checkbox"/>	<input checked="" type="checkbox"/>	The project is not expected to affect groundwater.	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Component	Potential Adverse Effects?		Overview of Potential Adverse Effects, Mitigation Measures, and Residual Adverse Effects	Significant Residual Adverse Effects?	
	Yes	No		Yes	No
Surface water and water bodies	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>The new substation will be contained in a building, and the transformers will be installed in concrete containments filled with gravel. The project will use vegetable oil-based insulating liquid as the insulating and cooling medium. A roof will be installed above the transformers, therefore there will be no interaction between stormwater and these components of the project.</p> <p>There will be an increase in impervious surfaces with the pavement of the access road and new stormwater utilities will be installed around the building to direct flows away from the building. The stormwater will discharge to Burrard Inlet, after being treated through an oil water separator.</p> <p>During construction, all wastewater from drilling activities and concrete trucks will be collected and contained, and appropriate stormwater pollution prevention measures will be implemented (e.g., installation of silt fencing, filter cloth inserts in catch basins, and wheel wash stations). The excavated soil will be covered with plastic tarps to prevent stockpile erosion due to wind and rain.</p> <p>There is the potential for adverse effects on surface water quality during soil excavation. The maximum depth of excavation is approximately 3.5 meters below grade, and groundwater may accumulate in the excavation. The proposed dewatering plan includes the collection and lab analysis of water samples. If the samples have no detectable contamination, the water will be dewatered to an unpaved upland area where it can naturally infiltrate. Should contaminated groundwater be encountered, VFPA Environmental Programs will be contacted for additional review to ensure adequate treatment prior to discharge.</p> <p>The mitigation measures are reflected in conditions 26, 28, 29, 30 in the Permit.</p> <p>With mitigation measures in place during demolition, there is a low likelihood of residual adverse effects of the project on surface water quality. If residual adverse effects do occur they are predicted to be not significant.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Species/habitat with special status	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<p>The project is not expected to affect species, or habitats, with special status.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Component	Potential Adverse Effects?		Overview of Potential Adverse Effects, Mitigation Measures, and Residual Adverse Effects	Significant Residual Adverse Effects?	
	Yes	No		Yes	No
Terrestrial resources (e.g., vegetation, wildlife, etc.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No upland vegetation will be impacted by the project. While birds may temporarily be present onsite, it is not anticipated that project will affect wildlife mortality.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Wetlands	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Wetlands will not be affected by the Project.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Aquatic resources (e.g., aquatic plants, fish and fish habitat, waterbirds, marine mammals, etc.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	There will be no in water works associated with the Project.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Archaeological, physical, and cultural heritage resources	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Impacts to archaeological and heritage resources are not expected.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Aboriginal Group interests (health and socio-economic conditions, current use of lands and resources for traditional purposes)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	VFPA reviewed the proposed works and determined that adverse impacts to Aboriginal group interests are not expected from the Project (see Section 6).	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Recreational interests	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Recreational interests will not be affected by the Project.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Accidents and malfunctions	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>There is potential for adverse effects on surface water, soils, and groundwater from accidental equipment leaks or spills. Considering the amount of oil that will be drained during the demolition of the existing transformers and oil circuit breakers, accidental oil spills may occur.</p> <p>Mitigation measures will be in place to reduce potential for adverse, project-related effects due to accidents. The detailed measures are outlined in the Spill Contingency Plan, and include storing temporary fuel in double-walled tanks or with secondary containment, having spill kits (including absorbent pads and booms) readily accessible.</p> <p>With mitigation in place, the residual adverse effect, if it occurs, is expected to be not significant.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Residual adverse effects (i.e., effects that remain with mitigation in place) were identified for the following environmental components:

- Air quality;
- Lighting;
- Noise;
- Soil; and
- Surface water and water bodies.

The residual adverse effects of the project on the environmental components are characterized as:

- Small in magnitude due to relatively low levels of emissions and potential effects on air quality, noise and surface water and water bodies during operations;
- Local in geographic extent because effects are not anticipated to extend to the adjacent community or into Burrard Inlet;
- Long-term in duration because potential stormwater emissions will last throughout the life of the project;
- Daily in frequency because potential stormwater emission will occur throughout the life of the project; and
- Reversible because all of the residual effects of the project would be reversible once the project is decommissioned.

Taking into consideration all of the above, and with the implementation of the proposed mitigation measures and Permit conditions, the residual adverse effects from the Project are predicted to be not significant.

7.3 Environmental Review Decision

In completing the environmental review, VFPA has reviewed and taken into account relevant information available on the proposed project, has considered the information and proposed mitigations provided by the Applicant and other information as listed elsewhere in this document, and concludes that with the implementation of proposed mitigation measures and Permit conditions, the Project is not likely to cause significant adverse environmental effects.

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ANDREA MACLEOD
MANAGER, ENVIRONMENTAL PROGRAMS

June 8, 2017

DATE OF DECISION

8 RECOMMENDATION

In completing the project and environmental review, VFPA concludes that with the implementation of proposed mitigation measures and conditions described in the Permit, the Project has appropriately addressed all identified concerns.

It is the recommendation of staff that this application be approved subject to conformance with the project and environmental conditions listed in project permit **PER No. 17-037**.

APPENDIX A Location Plan



APPENDIX B

List of Information Sources

VFPA has relied on the following sources of information in the project and environmental review of the Project:

- Application form and materials submitted by Applicant on behalf of the tenant on November 9, 2016.
- All Project correspondence from November 9, 2016 to May 24, 2017.
- All plans and drawings labelled PER No.17-037 A to H.
- Chart titled "Vibro-equipment Noise Levels", January 18, 2017, Nikolay Samoylenko.
- Memo titled "Vibro-Replacement Stone Columns – Method Statement", January 30, 2017, Menard Canada.
- Memo titled "Cargill Community Impacts", February 10, 2017, Nikolay Samoylenko.