

PROJECT PERMIT NUMBER 2013-104

DATE OF APPROVAL February 28, 2014

APPLICANT Pacific Coast Terminals Co. Ltd.

ADDRESS OF APPLICANT 2300 Columbia Street, Port Moody

PROJECT LOCATION 2300 Columbia Street, Port Moody

PROJECT TITLE Canola Handling

PROJECT DESCRIPTION

For the purposes of this Permit, the Project is understood to include the following "Works" on Vancouver Fraser Port Authority property:

Construct and operate a canola handling facility and associated works, including:

Glycol Unloading System

- 2 Glycol Unloading Pumps
- Water Decanter Chamber

Marine Loading System

- Canola Oil Marine Loading Arm
- Canola Oil Slop Tank (at berth)
- 2 Marine Mooring Dolphins and walkways

Canola Unloading & Storage

- 2 Canola Unloading Pumps
- Pipe Trench Adjacent to School House Creek
- Schoolhouse creek pipe bridge modification
- Pipe trench between existing and new tanks
- Tank Secondary Containment Area
- 3 Canola Oil tanks (approx. 36 m Diameter and 21.5 m high)
- Containment area sump
- 2 Marine Loading Pumps
- Electrical Room
- Pipe trench from new tanks
- Pipe bridge to existing water side pipe rack
- 2 Canola Oil Booster Pumps

GENERAL CONDITIONS OF APPROVAL:

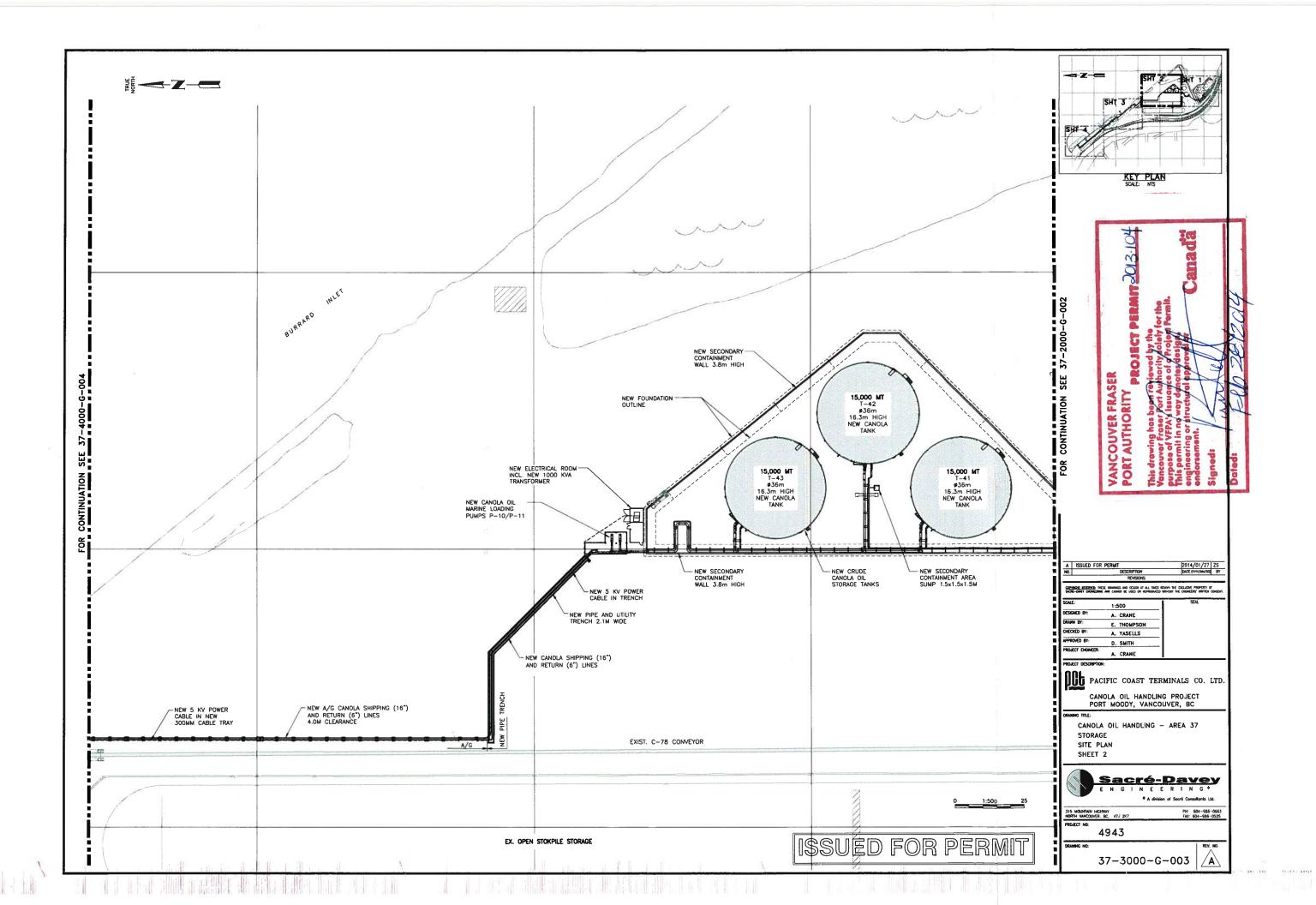
- 1. This Permit is conditional on a valid tenure agreement with respect to the subject premises being in place. NO CONSTRUCTION MAY COMMENCE IN THE ABSENCE OF A VALID TENURE AGREEMENT.
- 2. This Permit is granted subject to the fulfillment of all other requirements of the Vancouver Fraser Port Authority (VFPA), doing business as Port Metro Vancouver, relating to the Project, and subject to all applicable laws and other necessary approvals being obtained. Prior to commencing construction the Applicant shall ensure that it has complied with all necessary legal requirements and that all necessary regulatory approvals have been obtained. Furthermore, the issuance of the VFPA Project Review Permit does not preclude compliance with the regulatory processes and requirements of any other applicable agencies;
- 3. This Permit in no way endorses or warrants the design, engineering, or construction of the construction works contemplated under this Permit and no person may rely upon this Permit for any purpose other than the fact that VFPA has permitted the contemplated construction works to commence, subsequent to the issuance of this Permit, in accordance with the terms and conditions of this Permit;
- 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 of any works as contemplated by this Permit;
- 5. Development shall be generally in accordance with the application submitted by Mr. Andrew MacKay of Envirochem Services Inc., on behalf of Pacific Coast Terminals Ltd. on July 19, 2013, and subsequently submitted documentation, including the attached drawings titled, numbered and dated:
 - Canola Oil Handling General Site Plan 37-1000-G-001 January 27, 2014
 - Canola Oil Handling Railcar Unloading Site Plan 37-2000-G-002 January 27, 2014
 - Canola Oil Handling Storage Site Plan 37-1000-G-003 January 27, 2014
 - Canola Oil Handling Shipping Site Plan 37-1000-G-004 January 27, 2014
 - Canola Oil Handling Shipping Site Plan 37-1000-G-005 January 27, 2014
 - Canola Oil Tanks Plan & Elevation E43-1 September 7, 2013
- 6. The Applicant shall adhere to the conditions listed on the attached VFPA Schedule of Environmental Conditions numbered 13-104;
- 7. Prior to commissioning of the proposed Canola Handling system, the Applicant shall submit a report, certified by an appropriate professional, describing how all applicable recommended practices contained in the Vegetable Oil Marine Terminal Best Practices Manual (December 2012) have or will be implemented, to the satisfaction of VFPA;
- 8. No works existing or proposed shall create any cross-connections or backflows that could potentially introduce contaminants into the City's public drinking water system. Prior to commencement of any new water services which connect to the City system, PCT shall provide the City of Port Moody with certified compliance CSA B64.10/07/B64.10.1-07 (Selection and Installation of Backflow Preventers/Maintenance and Field Testing of Backflow Preventers).

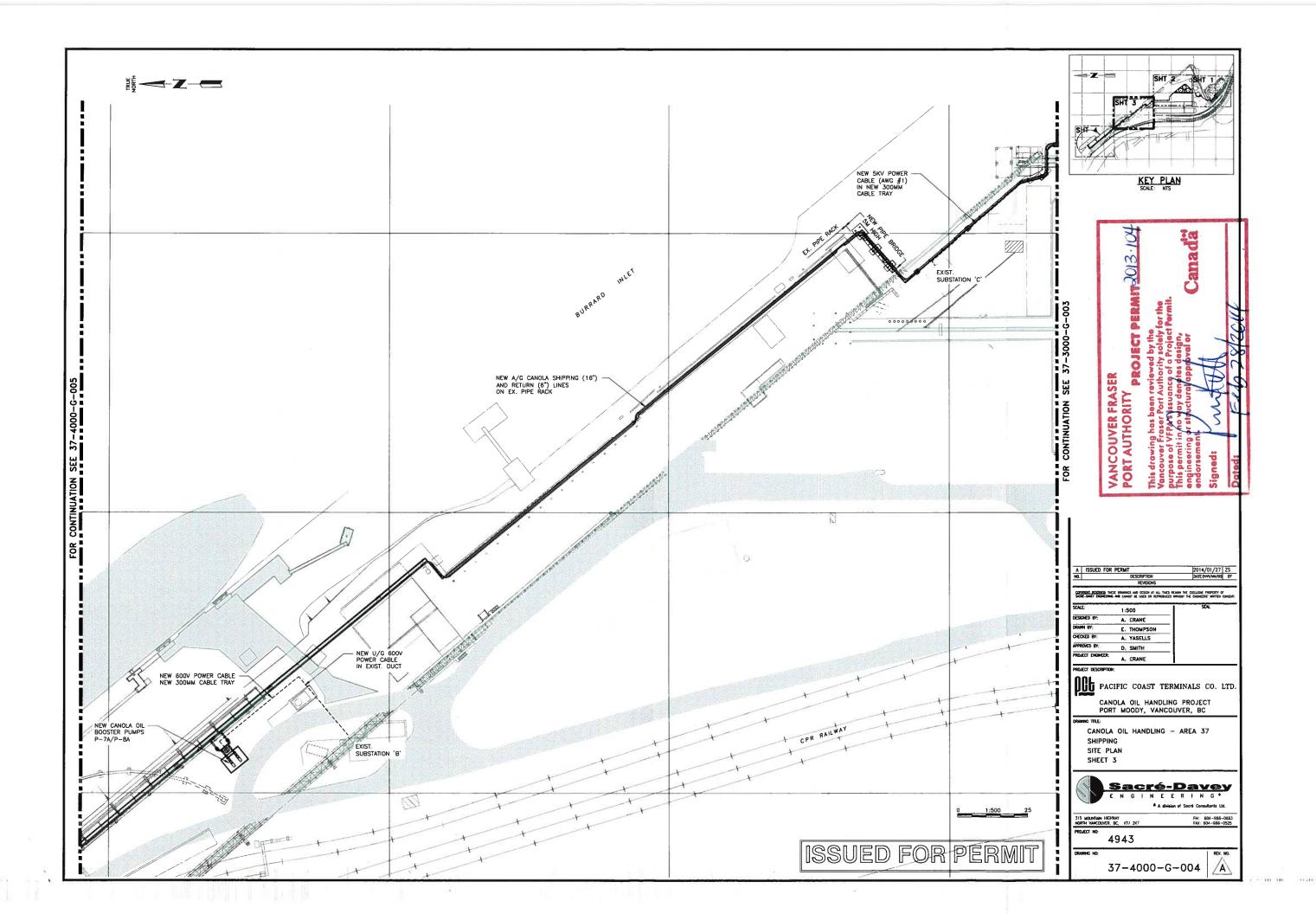
- 9. The Applicant is responsible for locating all existing site services and utilities including any located underground and the Applicant shall ensure that these services and utilities are protected during construction and operation of the Project. The Applicant is responsible to employ best practices 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;
- 10. Details of any significant proposed changes to the Project or relating to the application must be submitted to VFPA for consideration of an amendment to this Permit;
- 11. Prior to commencement of construction, the Applicant shall submit signed and sealed drawings and professional letters of assurance approved for construction by a professional engineer licensed to practice in the Province of British Columbia, and shall obtain a VFPA Building Permit;
- 12. The Applicant shall provide VFPA with a construction schedule prior to commencement of construction and shall provide VFPA with regular updates of the construction schedule throughout the duration of construction;
- 13. The Applicant shall notify VFPA upon commencement of construction of the approved works and upon completion of the Project;
- 14. All construction activities shall be in accordance with the City of Port Moody Sound Level Bylaw, 1980, No. 1399, unless prior approval is granted by VFPA.
- 15. The Applicant may place temporary construction trailers on site while this permit remains in 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;
- 16. The Applicant shall provide as-built drawings, in both AutoCAD and Adobe (PDF) format, within 60 days of completion of all works; and,
- 17. The approved works must commence by February 28, 2015 (the "Commencement Date") and be complete no later than February 28, 2016 (the "Completion Date"). For an extension to the Commencement Date, the Applicant must apply to VFPA in writing no later than 30 days following that date. For an extension to the Completion 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 approval.

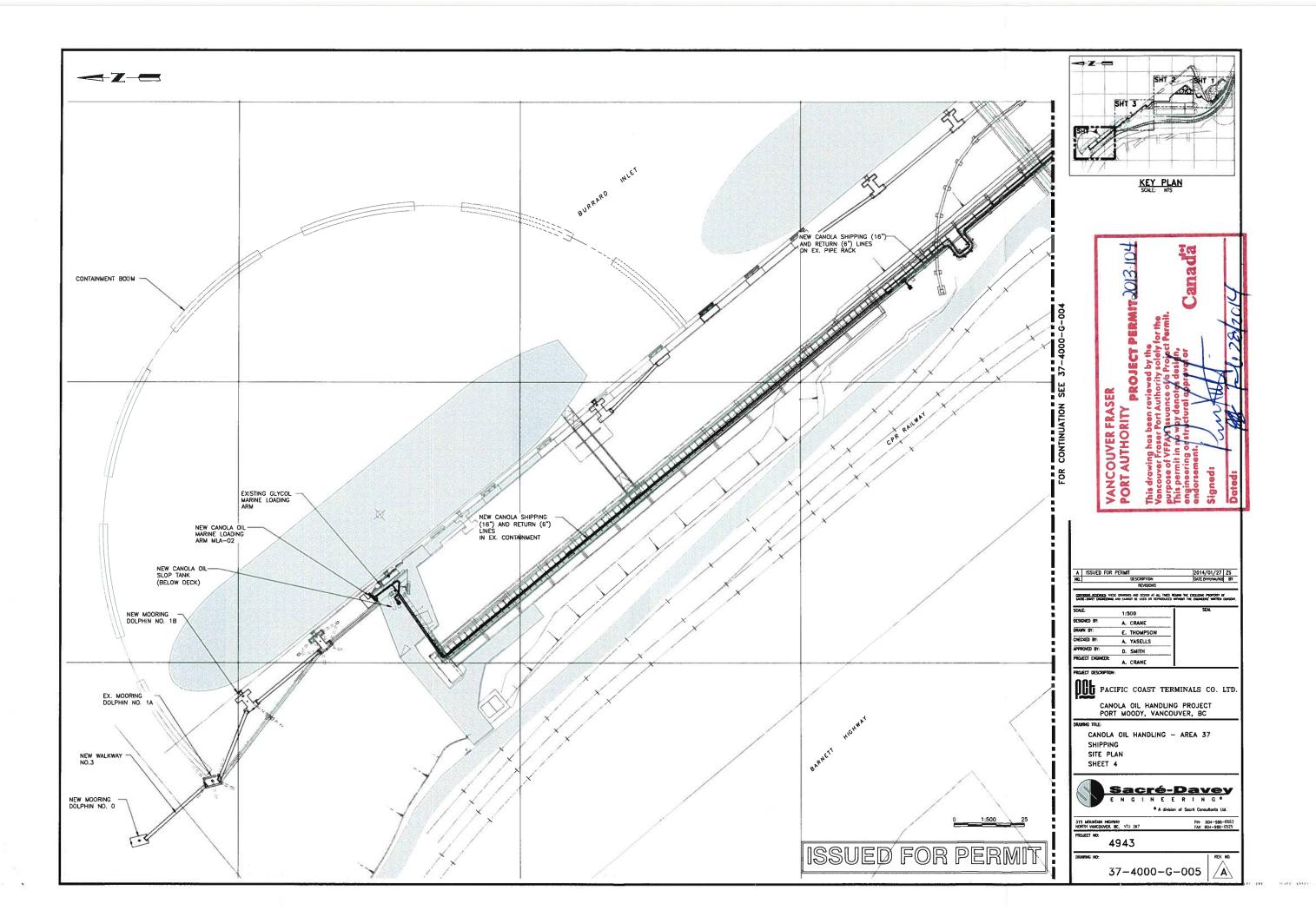
VFPA reserves the right to rescind or revise these conditions at any time that new information warranting this action is made available to us.

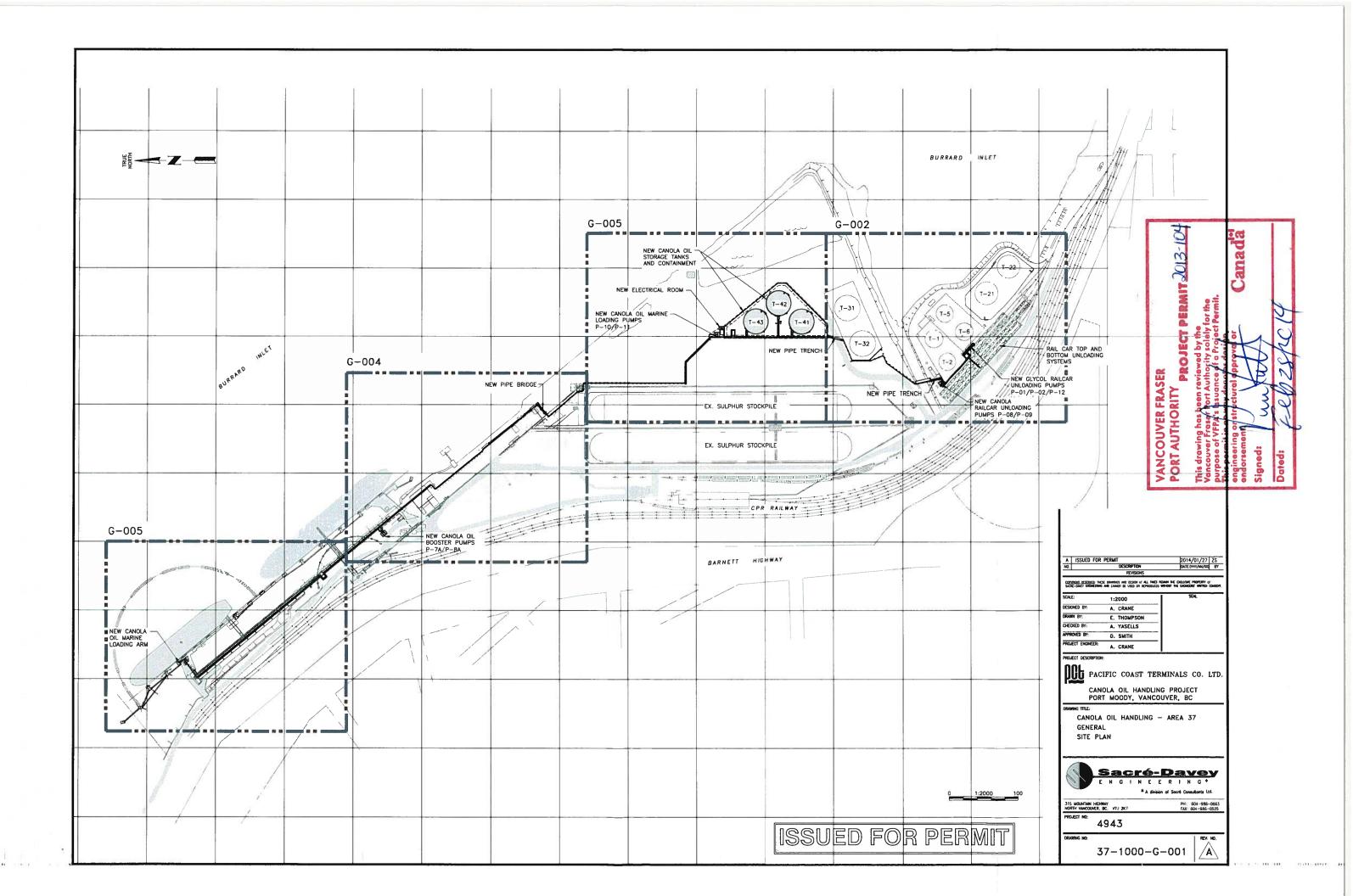
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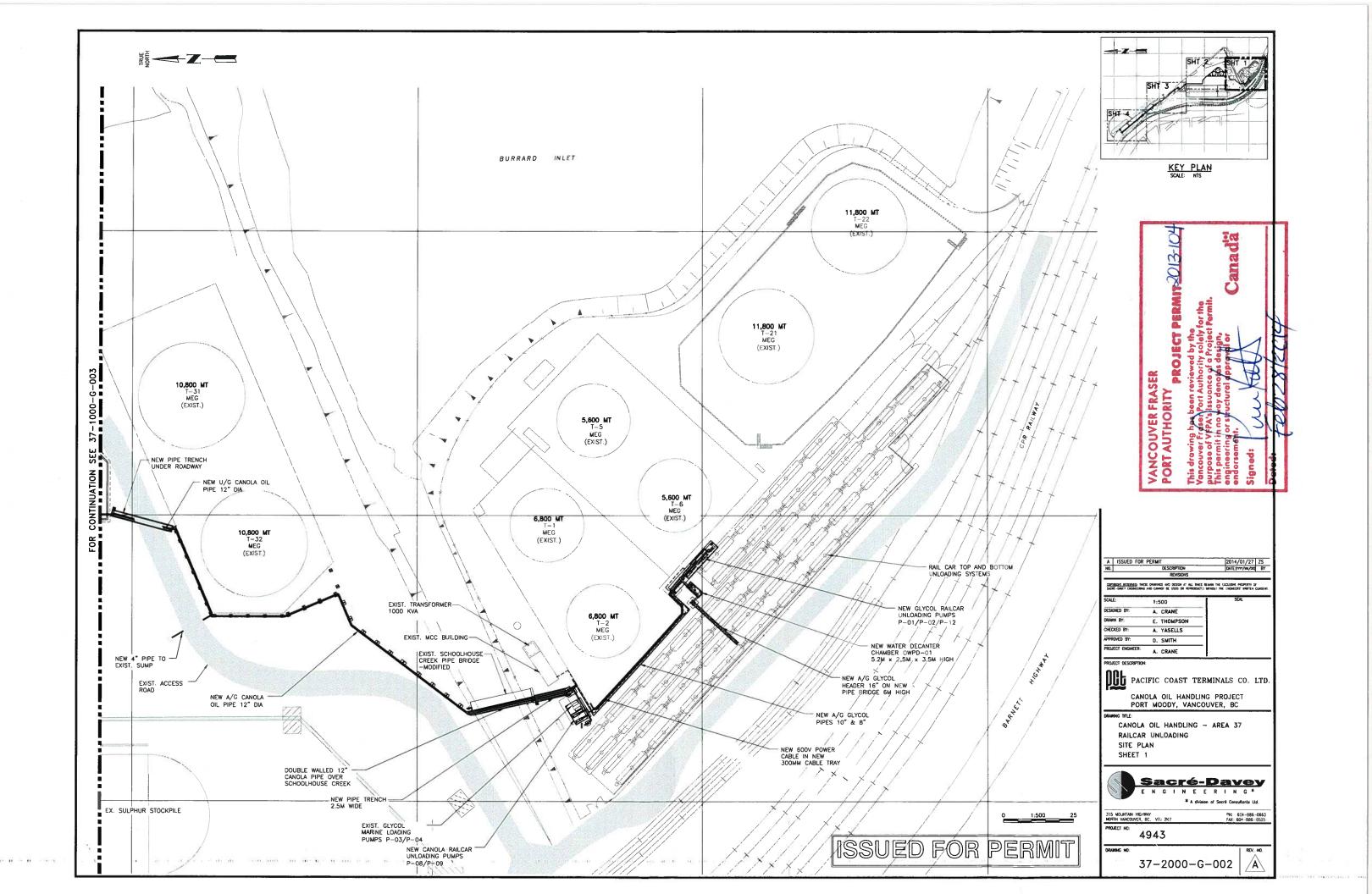
Vice President Planning and Operations

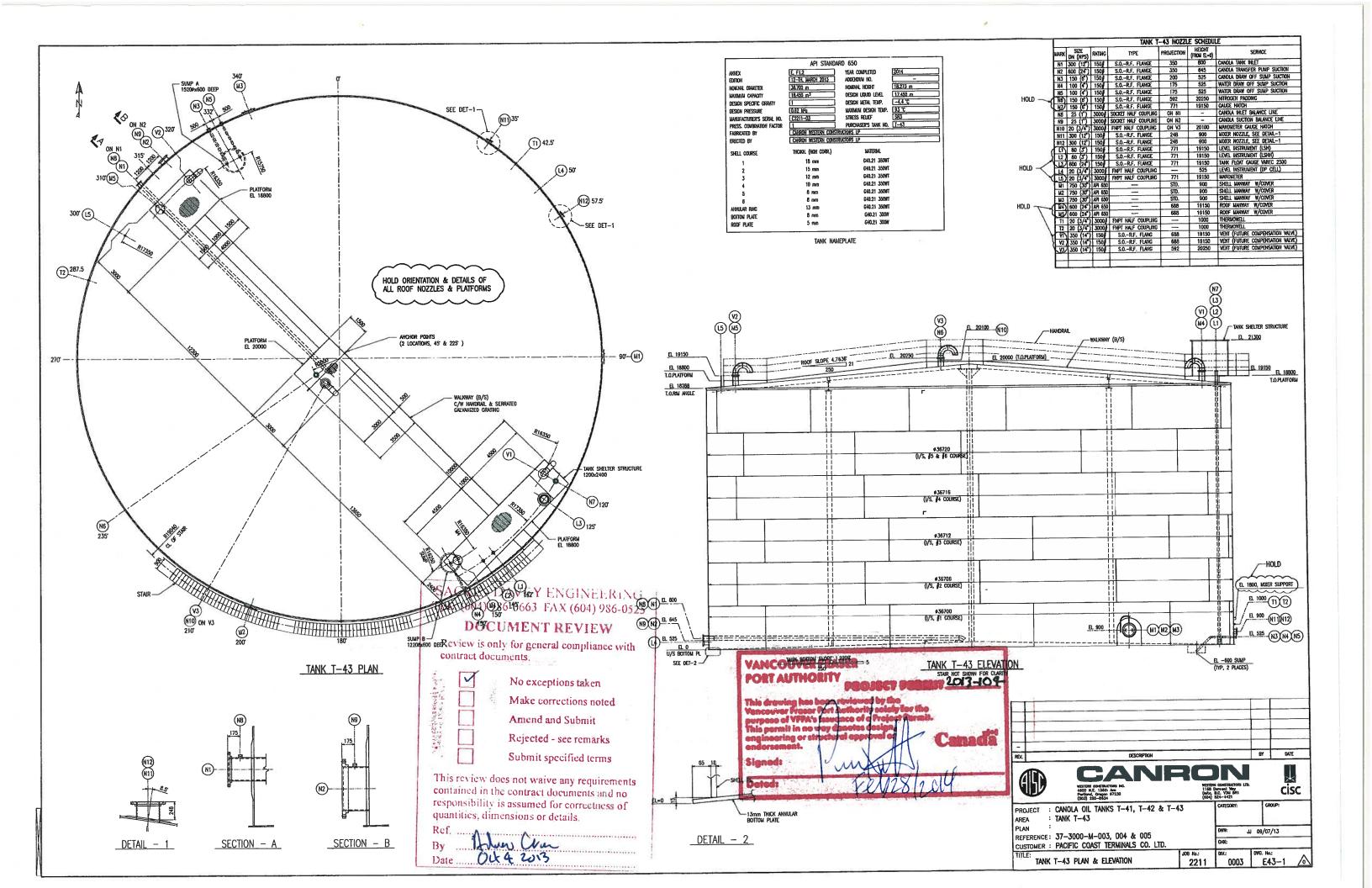














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Project: Canola Oil Handling

VFPA Site/Area No.:

Port Moody, BC PTM101

Proponent(s): Pacific Coast Terminal

Project Description

In this Schedule, "Project" means the physical activities authorized by VFPA to be carried out pursuant to Review Number 13-104, as described below.

- Pacific Coast Terminals (PCT) proposes to install and operate canola handling facilities at their existing terminal. Canola oil would be brought to site via rail, stored in tanks on site, and exported via ocean going vessel.
- Canola oil currently being handled by Neptune Terminals will be moved to PCT, along with a potential increase in volume handled. Expected maximum canola throughput is 575,000 tonnes/yr by 2018, with a theoretical maximum of 910,000 tonnes/yr.
- This Project will involve modifications to existing infrastructure and new equipment, including the following:
 - Modification of the existing Monoethylene Glycol (MEG) rail car unloading facility to accommodate canola-laden railcars, including:
 - Modification of existing railcar platforms to accommodate various sized railcars;
 - Retrofitting existing railcar bottom unloading system for canola use;
 - Installation of new top unloading system for unloading glycol railcars;
 - New pumping stations for canola railcar unloading to storage; and
 - New electric motors and pumps for glycol unloading.
 - Installation of three new canola oil tanks (15,000 metric tonnes each), representing a 64% increase in the terminal's liquid storage capacity. Each tank will be approximately 36 m in diameter and 21.5 m in height;
 - New carbon steel above-ground pipe installations including interstitially monitored double-walled piping at two sensitive locations: Schoolhouse Creek and dock loading area.
 - New pipelines will begin at the converted rail unloading area, cross the existing pipeline bridge, turn north on the existing pipeline rack, cross over containment for tanks T31 and T32, under the maintenance road and connect to the contained bulk canola storage tanks T41,42,43.
 - Canola will be pumped from storage tanks to ocean-going vessels at Berth 1 via a 16" marine shipping line using two marine loading pumps and two mid-point booster pumps. The marine discharge line will be above ground including the open pre-fabricated concrete trench crossing beneath the maintenance road for approximately 30m between the new tank containment area and tanks T-31 and T-32 containment. The pipeline will lie in a trench, with grated covers.
 - The two main ship loading pumps will be located adjacent to the new tank containment wall. Two booster pumps will be located beside the existing nitrogen storage tank and evaporator adjacent to Berth #2.
 - From the marine loading manifold, canola oil will be loaded onto vessels via a new 10" articulated loading arm designed for a maximum marine loading rate of 1,000 MT / hr. The marine loading arm (MLA) will be installed adjacent and to the west of the glycol MLA to allow for larger tanker vessels to be loaded.

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- The dock, fenders and mooring facilities can currently accommodate vessels of 180m in length and will require an additional mooring dolphin to accommodate 200m length vessels. This will involve some in-water work (pile driving) and other installations as follows:
 - Marine Loading Arm (MLA) flange connection between ship and MLA hose. To
 accommodate the new MLA, minor modifications to the existing dock structure are
 required in addition to the installation of two piles. The existing dock is designed to
 accommodate this second MLA and will simply be secured to the existing deck.
 - Installation of sixteen piles, a mooring dolphin and a berthing dolphin, concrete foundation, and a new oil marine loading arm at Berth 1;
 - A new berthing dolphin is to provide berthing support and lines bollards for vessels.
 Construction will include the placement of nine new capped steel piles and concrete pile cap identical in configuration to existing berthing dolphins. All piles will be driven from a marine barge.
 - To accommodate bow mooring lines for larger tankers a new mooring dolphin will be constructed west of the existing mooring dolphin 1A. This dolphin "0" will include the placement of five new concrete capped steel piles identical in construction and configuration of the existing mooring dolphin 1A.
- To facilitate construction of this additional dock infrastructure, the current west water lease lot boundary will require movement to the west by approximately 33m. PCT is currently working with VFPA on the Lease Agreement for this area.
- The proposed Project will result in up to 23 canola tankers at full capacity utilization, projected for 2020. In 2014, the Project would initially anticipate up to an additional 7 canola tankers (2014). This is equivalent to 1.5 to 2.0 vessels more per month per year up to peak operations.
- In late September 2013, VFPA became aware that PCT had begun works on the canola handling facilities prior to receiving a Project Permit or environmental Authorization from VFPA. PCT immediately stopped works at the request of VFPA. PCT subsequently requested permission to complete Rapid Impact Compaction (RIC) works that had been started at two of the three proposed canola tank locations due to risks associated with the Project schedule, cost impacts and due to the risks to the work conducted to date if the site experiences heavy rain. VFPA agreed to review the completion of the RIC works separate to the remainder of the Project and ultimately Authorized these works to go ahead prior to finalizing the review of the Canola Handling Project as a whole. That review was conducted as EAP#13-158.
- PCT was advised that Authorization of the RIC works did not include a review of potential
 environmental impacts from the unauthorized works already completed. PCT was also advised that
 Authorization of the RIC works did not imply that the larger project would be authorized. The review
 for the canola handling Project as a whole, represented by this document, also does not include a
 review of potential environmental impacts from the unauthorized works already completed.
- Noise impacts to the surrounding community have been identified by PCT as a significant aspect within their corporate Environmental Management System (EMS). Through the EMS, noise issues are tracked, addressed as needed, and reviewed by management on a regular basis. Note that the Port expects

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Proponent(s): Pacific Coast Terminal

PCT to continue with the existing programs captured within the EMS and provide summary reports if requested by the Port.

It is estimated that this project would be complete by October 2014.

Information Sources

VFPA has relied upon the following sources of information in its assessment of the potential adverse environmental effects of the Project:

- A completed Port Metro Vancouver Project Review Application Form, dated July 19, 2013 and signed by Andrew MacKay of Envirochem Services Inc. and Kent Smith of Pacific Coast Terminals.
 - A document titled "Insert A, Project Information", attached to the Project Review Application.
 - A document titled "Insert B, Project Environmental Implications", attached to the Project Review Application.
- A document titled "Pacific Coast Terminals Co. Ltd., Environmental Review Document, Canola Oil System Installation and Operation", prepared by Envirochem Services Inc., dated July 18, 2013.
- A series of Sacre-Davey Engineering drawings included with the Project Review Application, as follows:
 - Drawing 37-1000-G-001, "Canola Oil Handling Area 37, General, Site Plan", dated June 10, 2013;
 - Drawing 37-2000-G-002, "Canola Oil Handling Area 37, Railcar Unloading, Site Plan", dated June 10, 2013;
 - Drawing 37-3000-G-003, "Canola Oil Handling Area 37, Storage, Site Plan" dated June 10, 2013;
 - Drawing 37-4000-G-004, "Canola Oil Handling Area 37, Shipping, Site Plan, Sheet 1 of 3" dated June 10, 2013;
 - Drawing 37-4000-G-005, "Canola Oil Handling Area 37, Shipping, Site Plan, Sheet 2 of 3" dated June 10, 2013;
 - Drawing 37-4000-G-006, "Canola Oil Handling Area 37, Shipping, Site Plan, Sheet 3 of 3" dated June 10, 2013;
 - Drawing 37-2000-R-001, "Canola Oil Handling Area 37, General, Process Process Flow Diagram, Canola Oil Rail Unloading Area", dated June 28, 2013;
 - Drawing 37-3000-R-002, "Canola Oil Handling Area 37, General, Process Process Flow Diagram, Canola Storage Tanks T-41/T-42/T-43", dated June 28, 2013;
 - Drawing 37-4000-R-003, "Canola Oil Handling Area 37, General, Process Process Flow Diagram, Canola Marine Loading Area", dated June 28, 2013;
 - Drawing 37-1000-R-004, "Canola Oil Handling Area 37, General, Process Process Flow Diagram, Canola Oil Slops", dated June 28, 2013;
 - Drawing 30-2000-R-008, "Canola Oil Handling Area 37, General, Process Process Flow Diagram, Glycol (MEG) Rail Unloading", dated June 28, 2013;

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- Drawing 30-1000-R-009, "Canola Oil Handling Area 37, General, Process Process Flow Diagram, Glycol (MEG) Storage Tanks", dated June 28, 2013; and,
- Draft Drawing 4943-SK-021B, "Canola Oil Handling Area 37, Berth #1 Extension, Site Plan –
 (Partial) General Arrangement", dated October 2013.
- The VFPA Environmental Report and Schedule of Environmental Conditions issued for the PCT Rapid Impact Compaction Works (Associated with Canola Project), dated November 20, 2013.
- Email correspondence from Laura Strand of VFPA to Carolina Eliasson and Judy Kitts of VFPA with the subject line "RE: Archaeological Studies near PCT" dated November 25, 2013.
- A document titled "Canola and Water Treatments Systems, Construction Environmental Management Plan", prepared by Envirochem Services Inc., dated November 28, 2013.
- A Sacre-Davey Engineering Drawing 37-1000-G-002, "Canola Oil Handling Area 37, General, Site Plan – (Partial), Parking and Lay-Down Areas", dated October 4, 2013.
- Email correspondence from Andre Olivier of Pacific Coast Terminals (PCT) to Carolina Eliasson of VFPA with the subject line "PMV Canola Project Environmental Questions – October 23, 2013", dated November 5, 2013.
 - A document titled "RE: Soil Quality Characterization, Canola Handling Facility Construction and Water Treatment Upgrade Projects", prepared by Envirochem Services Inc., dated October 22, 2013, attached to the November 5, 2013 email.
- Email correspondence from Andre Olivier of Pacific Coast Terminals (PCT) to Carolina Eliasson of VFPA with the subject line "PMV Canola Project Environmental Questions – October 23, 2013", dated November 5, 2013.
 - A document titled "RE: PCT Canola Project PMV Environmental Questions Dated October 23, 2013", prepared by PCT, dated November 5, 2013", attached to the November 5, 2013 email.
- Email correspondence from Andre Olivier of PCT to Kevin Key of VFPA with the subject line "FW: Response - PMV Air Emissions Queries - Dec 5, 2013 (PP 2013-104/091)", dated December 13, 2013.
- Email correspondence from Andre Olivier of PCT to Kevin Key of VFPA with the subject line "PCT Noise Complaints Data 2003-2013 (10 year period) & Procedure Description", dated December 20, 2013.
- Email correspondence from Andre Olivier of PCT to Gary Olszewski of VFPA with the subject line "RE: PMV Project review follow up on noise", dated January 3, 2014.
- A document titled "Port Metro Vancouver, Vegetable Oil Marine Terminal Operational Practices Study, Best Practices Manual", prepared by SNC-Lavalin, dated December 2012.
- A document titled "Re: Geotechnical Investigation Report for the Proposed Terminal Facility Upgrading, 2300 Columbia Street, Port Moody, BC", prepared by GeoPacific Consultants Ltd., dated August 28, 2012.
- Email correspondence from Christine Rigby of VFPA to Carolina Eliasson of VFPA with the subject line "Air Assessment Review and Recommendations-PCT Canola Handling Project", dated January 9, 2014.
 - A document titled "Air Assessment Review and Recommendations-Pacific Coast Terminals Canola Handling Project" dated January 8, 2014 and attached to the January 9, 2014 email.

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Proponent(s): Pacific Coast Terminal

- A letter to Andre Olivier of PCT from Colin Reddin of Sacre-Davey Engineering with the subject line "RE: Port Metro Vancouver Permit Request", dated January 30, 2014.
- A letter from Doug Raines of Musqueam Indian Band to Judy Kitts of VFPA with the subject line "Re: Permit Application by Pacific Coast Terminals Ltd.", dated January 31, 2014.
- A letter from Erin Hanson of Tsleil-Waututh Nation to Judy Kitts of VFPA with the subject line "Re: Pacific Coast Terminals Ltd., Canola Handling Facility", dated February 7, 2014.
- A letter from the City of Port Moody to James Crandles of VFPA with the subject line "Pacific Coast Terminals: Canola Handling (PP, 2013-104) and Wastewater Treatment (PP, 2013-091) Projects", dated February 17, 2014.

Environmental Effects Summary

Referrals to Government Agencies and Responses

- Project information was forwarded to Transport Canada Navigable Waters Protection Division. The inwater works portion of the Project may not proceed until the Transport Canada review is complete and Approval received, if applicable.
- No other government agencies were identified that had germane information or expertise that was not already otherwise available to the assessment.

First Nations Engagement

- Project information was provided to Tsleil-Waututh Nation, Squamish Nation, Musqueam Indian Band, and Sto:lo Nation via the People of the River Referrals Office. Tsleil-Waututh Nation and Musqueam Indian Band provided responses.
- Tsleil-Waututh Nation (TWN) provided VFPA with comments related to archaelology, riparian disturbance to Schoolhouse Creek, emergency response notification, and future stewardship opportunities with PCT as well as business opportunities. VFPA responded to concerns on February 17, 2014. VFPA did not require the proponent to complete any archaeological work as the Project is located primarily on 1950s fill. There will be no riparian disturbances to Schoolhouse Creek as a result of this Project. In response to TWN's comments on emergency response notification, VFPA will add TWN emergency contacts to VFPA's notification procedures, as will PCT. With respect to opportunities with PCT, VFPA encourages PCT and TWN to seek opportunities to find mutually beneficial partnerships. No outstanding issues remain.
- Musqueam Indian Band (MIB) provided VFPA with comments related to vessel traffic, endangered species, and marine shipping concerns. VFPA responded to concerns on February 17, 2014. The proposed Project is not anticipated to impact endangered species, and noise, spill response, contaminated bilge water, debris generation, and other concerns, are being mitigated through either conditions in the Project Permit or through operational practices by the proponent. No outstanding issues remain.
- On December 19, 2013, the People of the River Referrals Office deferred the project to TWN and MIB.
- No other issues or concerns were identified.

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Port Moody, BC

PTM101

Proponent(s): Pacific Coast Terminal

Referrals to Community and Public, and Responses

- PCTs community consultation and engagement activities on the Canola Handling Facility Project have been extensive. PCT undertook a series of consultation activities throughout 2012 and 2013 to provide information on both of these projects to the Port Moody community, elected officials, community organizations and businesses, and other stakeholders.
- VFPA consulted with the City of Port Moody (CPM) on the Canola Handling Facility Project. As part of the Project Review process, VFPA sent a referral letter to the City of Port Moody on February 4, 2014 informing them of the Project and seeking their comments.
- The CPM provided VFPA with comments related to emergency response, the projects compatibility with the CPM's water systems, CPM's guidelines and Bylaws, traffic impacts, code compliance, emissions, climate change, and foreshore and Schoolhouse Creek enhancement opportunities.
- No outstanding issues or concerns are expected that may affect the outcome of this review.

Environmental Effects Summary

The following table summarises the potential environmental effects the Project could have on the identified environmental components.

Environmental Component	nt Potential Adverse Effects?		Residual Effects?		Mitigation Measures / Comments	
	Yes	No	Unc	Yes	No	
Species/habitat with special status					-	Species with special status are not found in the project area.
Vegetation		0				Some vegetation removal will be required to construct the Project. Vegetation removed includes non-native ornamental species and recruited local species planted by PCT in the 1990s, including pine, alder, birch, cottonwood and shrubs such as scotch broom and salmonberry. Suitable mitigation, acceptable to VFPA, will be required as a condition of approval of this Project, and may include replacement planting or contribution to appropriate programs that focus on invasive species removal.
Wildlife / wildlife habitat						None were identified that were susceptible to Project-related effects.

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Location: VFPA Site/Area No.: Port Moody, BC PTM101

Environmental Component	- 4	otent Adver	se	Resid Effec		Mitigation Measures / Comments
	Yes	No	Unc	Yes	No	
Aquatic species / fish habitat	•					The majority of works will be conducted above the high water mark; however, the Project scope includes in-water works at Berth 1. Mitigation measures will be employed during construction to prevent and minimize adverse impacts to fishery resources.
						Heavy construction equipment will be regularly inspected for hydrocarbon leaks and a spill prevention and response plan implemented. In addition, all equipment will be operated from above the top of bank. No equipment or machinery will operate from the intertidal foreshore of Burrard Inlet.
						An appropriate spill prevention, containment, and clean-up contingency plan for hydrocarbon products (e.g., fuel, oil, hydraulic fluid, etc.) and other deleterious substances will be put in place prior to work commencing.
	3			y = =		PCT has also committed to implementing the recommendations and best management practices outlined in the Port Metro Vancouver Vegetable Oil Marine Terminal Operational Practices Study document, which will further protect aquatic species and fish habitat.
Other marine resources	0	•				None were identified that were susceptible to Project-related effects.
Soils	•					An appropriate spill prevention, containment, and clean-up contingency plan for hydrocarbon products (e.g., fuel, oil, hydraulic fluid, etc.) and other deleterious substances will be put in place prior to work commencing.
	::			2		Any soils excavated during construction will be handled in a manner that will prevent their release into the aquatic environment, either directly or indirectly as silt in storm runoff. Water that has contacted uncured or partly cured concrete will be contained and will not be discharged to the aquatic environment.
						Materials brought onto the property for use as fill, backfill, or for site preparation must be from sources known to be clean and free of contamination.
						Contaminated soils that may be encountered during Project excavation will be segregated and disposed of in an appropriate manner. A soil and groundwater management plan will be in place prior to construction and will address this issue.
Sediments						One berthing dolphin and one mooring dolphin will be placed in the waterlot adjacent to Berth 1 through the placement of steel piles. Mitigation measures will be employed during construction to prevent and minimize adverse impacts to sediments

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Location: VFPA Site/Area No.:

Port Moody, BC PTM101

Environmental Component	Potential Adverse Effects?		Adverse		dual ts?	
	Yes	No	Unc	Yes	No	20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 -
Ground water						An appropriate spill prevention, containment, and clean-up contingency plan for hydrocarbon products (e.g., fuel, oil, hydraulic fluid, etc.) and other deleterious substances will be put in place prior to work commencing.
			A 3			Should groundwater be encountered during excavation works, contaminated groundwater will be collected and disposed of in an appropriate manner. A soil and groundwater management plan will be in place prior to construction and will address this issue.
Surface water and water bodies	•				•	The proposed works will include removing vegetation and soils from the Project area, placing fill, pouring cast in place concrete, and paving. The work will be carried out above the high water mark and care will be taken to prevent any materials from entering Burrard Inlet.
	-	78 78				Any soils excavated during construction will be handled in a manner that will prevent their release into the aquatic environment, either directly or indirectly as silt in storm runoff. Water that has contacted uncured or partly cured concrete will be contained and will not be discharged to the aquatic environment. Discharges of substances deleterious to aquatic life will not be permitted. An soil and groundwater managment plan will be implemented during construction.
						An appropriate spill prevention, containment, and clean-up contingency plan for hydrocarbon products (e.g., fuel, oil, hydraulic fluid, etc.) and other deleterious substances will be put in place prior to work commencing. Care will be taken to prevent the release of deleterious substances to the receiving environment.
						Heavy construction equipment will be regularly inspected for hydrocarbon leaks and a spill prevention and response plan implemented.
					-1	PCT has also committed to implementing the recommendations and best management practices outlined in the Port Metro Vancouver Vegetable Oil Marine Terminal Operational Practices Study document.
Wetlands						No wetlands were identified in the Project area.

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Environmental Component		otent dvers	se	Resid Effec		Mitigation Measures / Comments
	Yes	No	Unc	Yes	No	
Air quality						The Project will result in an estimated increase in marine activity of 15% and in rail activity of 20% over the 2014-2020 period. Although PCT has limited ability to limit ocean going vessel, tug or locomotive emissions, other air quality improvement programs such as the North American Emission Control Area (ECA) will help to mitigate air impacts. In addition, PCT has developed a Construction Environmental Management Plan which includes emission reduction measures.
						There is potential for dust to be generated during construction. Dust mitigation measures will be implemented prior to the start of the Project.
Lighting					•	In order to minimize effects on nearby residents, construction will be scheduled between 7:00 am and 8:00 pm in compliance with the City of Port Moody's "Sound Level Bylaw". Any work outside these hours will be limited as much as possible, and will not occur without advising local citizens and businesses.
Noise						Noise may be an issue during both construction and operation of the Project. During construction, activities will be scheduled to minimize disruption of nearby residences, where possible, and noise abatement measures appropriate to the activity undertaken will be implemented.
	1.2				=	Noise mitigation measures and low noise initiatives have been incorporated into the Project to reduce impacts from operational noise. PCT sets targets to reduce the number of noise complaints received throughout the year. Controls include active noise monitoring and routine preventative maintenance to keep sound levels as low as possible.
	6					In order to minimize effects on nearby residents, construction will be scheduled between 7:00 am and 8:00 pm in compliance with the City of Port Moody's "Sound Level Bylaw". Any work outside these hours will be limited as much as possible, and will not occur without advising local citizens and businesses.
		_		l lin		Noise impacts are anticipated to be low or insignificant provided that noise mitigation measures are put in place and proven to be effective.
Archaeological/heritage resources						There are no known archaeological resources at risk from the Project. Nevertheless, in the event that unanticipated archaeological remains or resources are encountered during construction, the construction will halt and the Archaeology Branch and an individual with appropriate archaeological qualifications shall be contacted immediately.

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Environmental Component	A	Potential Adverse Effects?		Residual Effects?		Mitigation Measures / Comments
the first of the second	Yes	No	Unc	Yes	No	1 = 11 = 12 = 2 = 2 = 2 = 2 = 2 = 2 = 2
First Nations interests	ani No					First Nations concerns regarding the Project include comments related to archaelology, riparian disturbance to Schoolhouse Creek, emergency response notification, vessel traffic, endangered species, marine shipping and loss or damage to habitat.
	11 2					These concerns are being mitigated through either conditions in the Project Permit or through operational practices by the proponent. No outstanding issues remain.
Recreational interests					- 1-	The Project area is an industrial zone and recreational interests are not expected to be impacted by the proposed Project.
Accidents and malfunctions						Mitigation measures to address impacts from accidents and malfunctions were considered during the review. The Project has been designed to meet appropriate standards and environmental management plans and accident and spill response plans will be in place during Project implementation.

Effects of the Environment on the Project

In addition to evaluating the effects of the proposed Project on the environment, changes to the proposed Project that may arise as a result of the environment have also been considered. The assessment of the effects of the environment on the Project included identifying the environmental factors deemed to have possible consequences on the proposed Project, the likelihood and severity of their occurrence and mitigation measures planned to minimize their impact.

The Project is not expected to create adverse environmental events beyond those that will be addressed with mitigation.

Cumulative Effects Summary

This environmental assessment has determined that residual adverse environmental effects are unlikely if readily available and practical mitigation measures are applied during the implementation of the Project.

Follow-up Program

It has been determined that a follow-up monitoring program will not be required for this Project.

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Conditions for the Mitigation of Adverse Environmental Effects

In addition to the mitigation measures designed into the Project (as described above and as indicated in the documents listed in the "Information Sources" section above), the Proponent is required to apply the following conditions to the Project:

- 1. The Proponent shall undertake and deliver the Project to total completion in a professional, timely and diligent manner in accordance with the applicable standards and specifications set out in the sections above entitled "Project Description" and "Information Sources". The Proponent shall not carry out any other physical activities unless expressly authorized by VFPA.
- 2. The Proponent shall at all times and in all respects comply with and abide by all applicable federal, provincial and municipal laws, statutes, by-laws, regulations, orders and policies from time to time in force and effect including, without limiting the generality of the foregoing, all rules and directions established by VFPA from time to time (collectively, "Applicable Law"). Any reference below to a specific law, statute, by-law, regulation, order or policy is for clarity only and in no way limits the generality of the foregoing.
- 3. The Proponent shall not, directly or indirectly: (i) deposit or permit the deposit of a deleterious substance of any type in water frequented by fish in a manner contrary to Section 36(3) of the Fisheries Act; or (ii) adversely affect fish or fish habitat in a manner contrary to Section 35(1) of the Fisheries Act.
- 4. The Proponent shall contain in the immediate working area all debris and waste materials resulting from the Project and remove such debris and waste material as soon as possible. The Proponent shall remove any submerged debris and waste material by means of a diver or other non-intrusive method. The Proponent shall not use a grappling hook or clamshell bucket to remove submerged debris or waste material unless such use is reviewed and approved by VFPA's Environmental Programs Department.
- 5. The Proponent shall ensure that debris and waste material resulting from the Project are 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. The Proponent shall have due regard for the applicable prohibitions and restrictions for burning a wide range of materials in British Columbia, such as creosote-treated wood.
- 6. All applicable legislation, guidelines, and best management practices shall be followed with respect to the application of wood preservatives and any other paints or coatings. Where practicable timber preservatives are to be applied upland in the dry prior to installation to allow the preservative to completely absorb and prevent leaching into the aquatic environment. A minimum of 45 days or compliance with wood treatment industry Best Management Practices (BMPs) is generally required to satisfy this criterion. This condition applies to initial construction and to subsequent maintenance. The applicant may wish to refer to the DFO Guidelines to Protect Fish and Fish

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Habitat from Treated Wood Used in Aquatic Environments in the Pacific Region (Hutton, K.E. and S.C. Samis. 2000. Can. Tech. Rep. Fish. Aquat. Sci. 2314: vi + 34 p) for information concerning the BMPs.

- 7. Any piles to be removed shall be completely extracted to remove the entire length of pile from the seabed. Where physical conditions result in the breakage of piles, best efforts shall be made to remove entire pile stubs with the least amount of disturbance of the river bed as possible.
- 8. Piles shall be driven with a vibratory or drop hammer. In the event that a diesel or hydraulic hammer or other technology such as drilling is required to install the piles VFPA Environmental Programs shall be consulted for additional review and authorization in this regard prior to initiating the physical works.
- 9. In the event that distressed, injured or dead fish are observed following the initiation of pile driving, the work shall be halted immediately and VFPA Environmental Programs shall be consulted for additional authorization requirements before the work is resumed.
- 10. Any exposed hollow pipe piles shall be capped to prevent wildlife entrapment.
- 11. Any sediments contained within the piles after driving shall be left in place. If it is determined that they must be removed for engineering reasons, the applicant shall consult VFPA Environmental Programs for additional review and authorization prior to initiating the proposed works.
- 12. All work associated with the Project involving the use of concrete, cement, mortars and other Portland cement or lime-containing construction materials must be conducted in a manner that prevents sediments, debris, concrete (cured or uncured), and concrete fines from being deposited into any 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. must be prevented from entering any aquatic environment. Containment facilities should be provided at the site for the wash-down water from concrete delivery trucks, concrete pumping equipment, and other tools and equipment as required.
- 13. If cast-in-place rather than precast construction methods are used, the Proponent must use concrete-tight forms to isolate the concrete form the receiving aquatic environment, and must take appropriate steps to ensure that uncured concrete, concrete fines or water that has been in contact with uncured concrete do not enter the receiving aquatic environment.
- 14. Prior to commencing any physical activities, the Proponent 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 Proponent shall ensure that appropriate spill containment and cleanup 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.

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- 15. All equipment working on the Project site must be regularly inspected to ensure that it is in good mechanical condition and free from visible evidence of fuel, oil, coolant, solvents or hydraulic leaks. Equipment that is found to be other than in good condition should be removed from the job site immediately
- 16. The Proponent shall not operate machinery or equipment on the intertidal foreshore.
- 17. Prior to commencing any physical activities, the Proponent shall establish a soil and groundwater management plan for the Project. A copy of the plan shall be provided to VFPA Environmental Programs. Any soils excavated from the site during the proposed works shall be handled in a manner that will prevent their release into the aquatic environment, either directly or indirectly as silt in storm runoff.
- 18. Excavations shall not be dewatered unless a dewatering plan has been reviewed and authorized by VFPA Environmental Programs.
- 19. Should contaminated materials be encountered, the Proponent shall ensure that all contaminated materials are removed, contained, and disposed of at appropriate offsite upland locations in accordance with all applicable legislation, guidelines, and best management practices.
- 20. Any materials brought onto the property to be used for backfilling, site preparation, or other uses shall be from sources documented to be clean and free of contamination.
- 21. Stormwater and surface runoff shall be managed using best available practices and in compliance with all applicable legislation, guidelines, and best management practices.
- 22. For heavy duty diesel powered road licensed vehicles, every effort should be made to use a model year 2007 or newer. For diesel powered nonroad or offroad equipment, every effort should be made to use Tier 3 equipment or better.
- 23. Dust and air emissions shall be managed to avoid health and safety issues on site and those other impacts offsite, as well as to prevent adverse effects on regional and local air quality. In this regard, dust control measures during construction shall be implemented as required, including but not limited to the following:
 - No visible dust beyond the property line;
 - Tracked out material should not exceed eight (8) metres;
 - A wheel washing facility to reduce track out should be established where appropriate;
 - Vehicles used to transport bulk fine materials should be covered;
 - Stockpiles of soil or aggregate should be stabilized with water;
 - Paved sections subject to dust accumulations should be cleaned/wetted on a regular basis; and,
 - Unpaved sections should be wetted on a regular basis.

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- 24. The Proponent shall not permit sediment, sediment-laden waters, or other deleterious substances to enter the water during the Project. The Proponent shall carry out all physical activities in a manner that prevents induced sedimentation of foreshore and near shore areas and induced turbidity of local waters, and the release of sediment, sediment-laden waters, and turbid waters to the aquatic environment. All physical activities shall be in compliance with the following water quality criteria:
 - When background is less than or equal to 50 nephelometric turbidity units (NTU) or 100 milligrams per litre (mg/L) non-filterable residue (NFR), induced turbidity should not exceed 5 NTU or 10 mg/L NFR above the background values.
 - When background is greater than 50 NTU or 100 mg/L NFR, induced turbidity should not exceed the background values by more than 10% of the background value.

For the purposes of this Section, "background" means the level at an appropriate adjacent reference site (as determined to the satisfaction of VFPA) that is affected neither by physical activities at the site, nor sediment-laden or turbid waters resulting from physical activities at the site.

- 25. The Proponent shall have due regard to the potential application of the *Migratory Birds Convention Act* and/or the *Wildlife Act* of British Columbia. To reduce the risk of Project-related harm to birds and/or their active nests and eggs, the Proponent may wish to avoid certain physical activities during the general bird breeding season, which falls between April 1 and July 31. If potentially harmful activities must be undertaken during this period, the Proponent shall exercise all due diligence to avoid causing harm to birds and/or their active nests and eggs. The Proponent 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 Proponent 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.
- 26. Within three months of Project Permit issuance, PCT will submit to VFPA Environmental Programs for approval a stand-alone, vegetation removal mitigation plan. The plan content shall be determined in consultation with VFPA. Within three months of plan approval, the PCT shall implement the mitigation plan.
- 27. Prior to the start of operations at the new Canola Facility, PCT shall provide VFPA with an updated copy of PCT's Emergency Response Plan.
- 28. The Proponent shall be solely responsible for reviewing DFO's Projects Near Water website (http://www.pac.dfo-mpo.gc.ca/habitat/know-savoir-eng.htm) to assess whether the Project requires DFO's involvement. Responsibility for submitting any necessary information through DFO's Project Review Process rests solely with the Proponent.
- 29. The Proponent shall cooperate fully with VFPA in respect of any review by VFPA of the Proponent's compliance with these conditions including, without limitation, providing any information or documentation required by VFPA.

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30. The Proponent shall provide a copy of this Schedule to all employees, agents, contractors, licensees and invitees prior to commencing any physical activities. The Proponent shall be solely responsible for ensuring that all such employees, agents, contractors, licensees and invitees contractors, comply with these conditions.

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

The above conditions are based solely upon VFPA's review of the Project and in no way limits the authority of, or constitutes any form of permit, authorization or approval by, any other governmental authority having jurisdiction. The Proponent is solely responsible for obtaining any and all required permits, authorizations and approvals from any other governmental authority having jurisdiction.

The Proponent may contact the Coast Guard regarding the issuance of a Notice to Shipping in respect of the Project at the following address:

> Canadian Coast Guard Vessel Traffic Services 555 West Hastings Vancouver, British Columbia V6B 4N6

Tel (604) 666-6011 Fax (604) 666-8453

Assessment Determination

In completing this federal environmental review, PMV has reviewed and taken into account relevant information available on the proposed Project, has considered the information and proposed mitigations provided by Pacific Coast Terminal and other information as listed elsewhere in this document, and concludes that with the implementation of proposed mitigation measures and conditions (as described in this Environmental Review Report and Schedule of Environmental Conditions), the Project is not likely to cause significant adverse environmental effects.

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