



Ministry of Environment
Inspection Record

**Environmental
Protection
Division**

EP System: <u>AMS</u>	Inspection Status: <u>FINAL</u>
System Number: <u>105809</u>	Inspection No: <u>29727</u>
EP System Status: <u>Active</u>	Inspection Date: <u>2016-11-16</u>
Region: <u>West Coast</u>	Office: <u>Nanaimo</u>
Trigger: <u>Planned</u>	Incidents of Non-Compliance Observed: <u>Yes</u>
Non-Compliance Decision Matrix Level: <u>Level 1</u>	Non-Compliance Decision Matrix Category: <u>Category B</u>
Inspector Name(s): <u>Connor Fraleigh</u>	CPIX: <u>Over 2 = High</u>
Audit: <input type="text"/>	Total Non-Compliance(s): <u>4</u>
Regulated Party: <u>COBBLE HILL HOLDINGS LTD. (BC0754588)</u>	
Regulated Party Contact(s): <u>Marty Block</u>	
Mailing Address: <u>South Island Aggregates Ltd. PO Box 282 Malahat BC V0R 2L0</u>	
Phone No: <u>(250)743-3332</u>	Fax No: <u>(250) 743-3338</u>
Contact Email: <u>marty.sia@shaw.ca</u>	
Location Description or Site Address: <u>460 Stebbings Road, Shawnigan Lake, BC</u>	
Latitude: <u>48.5511</u> N	Longitude: <u>123.6066</u> W
Receiving Environment(s): <u>Groundwater, Land & Surfacewater</u>	

Summary

MONITORING AND REPORTING REQUIREMENTS	
Inspection Period: From: 2016-04-01 To: 2016-06-30	
Requirement Source: Permit	
Activity: Office Review	Waste Type: Effluent
Inspection Summary: <p>On August 18, 2016, Environmental Protection Officer Connor Fraleigh conducted an Office Review inspection of Cobble Hill Holdings Ltd. (BC0754588) (CHH)'s operation near Shawnigan Lake, authorized under Environmental Management Act refuse permit 105809 (Permit).</p> <p>Reviewed was the Permit, issued August 21, 2013; a Permit letter amendment, dated June 4, 2015; the 2016 Quarter Two Environmental Monitoring Report (South Island Resource Management (SIRM), July 29, 2016) (2016 Q2 Report); and associated data and correspondence.</p> <p>The scope of this Office Review was to review the 2016 Q2 Report and assess related compliance with the Permit. This inspection record is limited to review of the Permit clauses specified in the "Inspection Details" section below.</p> <p>CHH was determined to be in compliance with the following sections of the Permit: 1.1.1, 1.3.2, 1.4.2, 1.5.1, 3.1, 3.3, 3.4, 3.5, 3.6, 5.2 and 6.1.</p> <p>CHH was determined to be in non-compliance with the following sections of the Permit:</p> <p>1.4.4 Chloride and Sulfate levels within the WTS effluent were above applicable guidelines between June 11, 2016 and June 16, 2016. In addition, a single water quality exceedance for dissolved iron was detected at SW-1 during the June 2016 sampling event.</p> <p>2.10 A single Fugitive dust exceedance occurred in June 2016. In addition, two parameters were above the B.C. Ambient Air Quality Residential Objective on April 28, 2016.</p> <p>5.2 The Q2 report was not posted online at http://www.sirm.ca/community.html 30 days after the end of the quarter.</p> <p>6.1. A non-compliance report was not submitted regarding the fugitive dust exceedance that occurred in June 2016.</p> <p>Compliance with the following sections of the Permit was not applicable this quarter: 1.5.3, 3.4 and 3.5.</p> <p>The appropriate compliance response is an Advisory.</p> <p>Please refer to the sections "Inspection Details" and "Additional Comments" below for actions required by the Permittee and additional information.</p>	Response: Advisory

ACTIONS REQUIRED BY REGULATED PARTY:

Please notify this office by email at EnvironmentalNonCompliance@gov.bc.ca within 30 days of this letter, summarizing what corrective measures have been taken, and what else is being done, to bring this authorization into compliance.

ADDITIONAL COMMENTS:

Compliance History:

2016-10-28 On-site -- No non-compliances noted with Pollution Prevention Order (PPO) requirements.

2016-10-13 On-site -- No non-compliances noted with PPO requirements.

2016-10-12 Office Review -- Unauthorized bypass and exceedances of BC Approved and Working Water Quality Guidelines at the discharge point. 2C Order Issued.

2016-08-12 Office Review -- Non-compliance noted for section 3.1 related to one missed sampling event citing safety concerns. 1A Advisory Letter issued.

2016-08-08 Office Review -- 2B Warning Letter issued.

2016-08-03 Onsite -- No non-compliances noted.

2016-06-14 Office Review -- Non-compliance noted for section 1.4.2, 1.5.3, 2.10, 2.12, 2.15, 2.18 and 6.1, 2B Warning Letter issued.

2015-12-17 Office Review -- Update on previous undetermined non-compliance reporting clause (6.1) from 2015-11-14 inspection; No non-compliances noted.

2015-12-02 Onsite -- No non-compliances noted.

2015-11-14 Onsite -- Non-compliance as a result of water crossing the perimeter boundary instead of channelling to the settling pond as required (1.5.4, 1.5.5, 2.12). In addition, the permittee did not immediately contact the director upon discovering the discharge (2.12). 2A Warning

2015-09-15 Office Review -- Follow-up on 2015-05-13 non-compliances, now in compliance. No non-compliances noted.

2015-05-13 Onsite -- Non-compliances noted: monitoring well MW-4 no longer operational (3.3), sampling and reporting not conducted during appeal period (3.4, 3.6, 5.2), tracking process practice not matched to Environmental Procedures Manual (5.1(5)). 1A Advisory.

2014-05-29 Onsite -- Non-compliances noted: permanent flow-measurement device not yet installed (1.5.4, 1.5.5), tracking process practice not matched to Environmental Procedures Manual (5.1(5)). 1A Advisory.

Please contact Connor Fraleigh with any questions at Connor.Fraleigh@gov.bc.ca or (604)582-5367.

Compliance Summary	In	Out	N/A	N/D
Discharge	3	1	1	0
Operations	1	1	0	0
Reporting	2	2	0	0
Monitoring	7	0	2	0

Inspection Details

Requirement Type:	Requirement Description:	Details/Findings:	Compliance:

<u>Discharge</u>	<p>1.1 Authorized Discharges -- General Conditions</p> <p>This section applies to the discharge of refuse from a contaminated soil treatment and to the landfill facility.</p> <p>—</p> <p>1.1.1 The combined maximum rate of discharge from the treatment and to the landfill facility is 100000 tonnes/yr. Estimated density of soil accepted at the site ranges from 1.5 to 1.8 t/m³ for the purpose of sampling incoming soil or treated soil for characterization. The above density estimate may be modified at any time with a scientific sampling method approved by the Director.</p>	<p>A total of 15,135.16 tonnes was discharged to the landfill in the second quarter of 2016. This results in an annual total of 31,803.72 tonnes versus the permitted annual limit of 100,000 tonnes (2016 Q2 Report, p. i, 2).</p>	<u>In</u>
Requirement Type:	Requirement Description:	Details/Findings:	Compliance:
<u>Operations</u>	<p>1.3 Authorized Discharge -- Landfill Facility:</p> <p>This section applies to the discharge of refuse from a soil treatment facility and from relocated contaminated soil and associated ash. The site reference number for this discharge is E292889.</p> <p>—</p> <p>1.3.2. The characteristics of the discharge must be better than:</p> <p>Hazardous waste, as described in the Schedule 1, 1.1, 3 and 4 (Part 3, table 1 - Leachate Quality Standards) of the Hazardous Waste Regulation (HWR) and must be limited to contaminated soils and associated ash. Hazardous waste (as defined in the Environmental Management Act and the HWR), liquids, putrescible and other wastes must not be discharged.</p>	<p>Only non-hazardous waste class soil was imported onto the site (2016 Q2 Report, p. iii, 2).</p>	<u>In</u>

Requirement Type:	Requirement Description:	Details/Findings:	Compliance:
Discharge	<p>1.4 Ancillary Discharge -- Water Treatment System:</p> <p>This section applies to the discharge of effluent from the water treatment system (WTS). The site reference number for the WTS discharge is E292170.</p> <p>—</p> <p>1.4.2 The maximum rate of the WTS discharge is 274 cubic metres per day.</p>	<p>WTS discharge rates remained below the maximum permitted rate of 274 m³/Day with a maximum of 109.24 m³/Day. Approximately 443.77 m³ of treated water was discharged to the Settling Pond from the WTS (2016 Q2 Report, p. i, 14).</p>	In
Discharge	<p>1.4 Ancillary Discharge -- Water Treatment System:</p> <p>This section applies to the discharge of effluent from the water treatment system (WTS). The site reference number for the WTS discharge is E292170.</p> <p>—</p> <p>1.4.4 The characteristics of the discharged treated effluent must be equivalent to or better than the most stringent of those British Columbia Approved Water Quality Guidelines (BCAWQG) and A Compendium of Working Water Quality Guidelines for British Columbia (BCWWQG) for Freshwater Aquatic Life (AL) protection and Drinking Water (DW) uses for the parameters of concern: Inorganic Substances including metals, VPHw, LEPhw, Vhw6-10, EPhw10-19, PAHs, BTEX, Styrene, Chlorinated Hydrocarbons, Phenolic Substances, Chloride, Sodium, Glycols, pH and Oil & Grease.</p>	<p>Parameters above applicable standards, chloride (673 mg/L versus the BCAWQG instant maximum guideline of 600 mg/L) and sulfate (1120 mg/L versus the BCAWQG instant maximum guideline of 500 mg/L) (Section 1.4.4 of the Discharge Permit) were detected in WTS effluent between June 11, 2016 and June 16, 2016. In addition, a water quality exceedance for dissolved iron (0.393 mg/L versus the applicable BCAWQG guideline of 0.35 mg/L) was detected at SW-1 from the June 2016 sampling event (2016 Q2 Report p. i-ii, 15).</p>	Out
Discharge	<p>1.5 Ancillary Discharge -- Settling Pond</p>	<p>Discharge from the Settling Pond outlet (i.e. the</p>	In

	<p>This section applies to the discharge of stormwater from the settling pond. The site reference number for the settling pond outlet is E292898.</p> <p>—</p> <p>1.5.1 The rate of the settling pond discharge is 42,500 cubic metres per day for up to 1 in 10 year return period flood event of 24 hour duration.</p>	<p>combined discharge of WTS effluent and stormwater) did not occur during this reporting period (2016 Q2 Report p. i, 18).</p>	
Requirement Type:	Requirement Description:	Details/Findings:	Compliance:
Discharge	<p>1.5 Ancillary Discharge: This section applies to the discharge of stormwater from the settling pond. The site reference number for the settling pond outlet is E292898.</p> <p>—</p> <p>1.5.3 The characteristics of the settling pond discharge effluent (SW-1) must be equivalent to or better than the most stringent of those BCAWQG and BCWWQG for Freshwater Aquatic Life uses and Total Suspended Solids (TSS) must not exceed 25 mg/L for up to 1 in 10 year return period flood event of 24-hour duration.</p>	<p>Discharge from the Settling Pond outlet (i.e. the combined discharge of WTS effluent and stormwater) did not occur during this reporting period (2016 Q2 Report p. i, 18).</p>	Not Applicable
Requirement Type:	Requirement Description:	Details/Findings:	Compliance:
Operations	<p>2.10 Dust Control</p> <p>Fugitive dust created within the operation area must be suppressed. Measured dustfall must not exceed the B.C. Ambient Air Quality Residential Objective of 1.7 mg/(dm²-day) over a two week averaging period at the property boundary. The contingency measures must be documented in the EPM as defined in Subsection 2.13 and include, but not limited to, reduced activities,</p>	<p>Monthly two-week dustfall samples were taken. Fugitive dust in June 2016 was above the B.C. Ambient Air Quality Residential Objective (4.1 mg/dm²/Day versus the 1.7 mg/dm²/Day objective) (2016 Q2 Report, p. ii, 16).</p> <p>A water truck is scheduled to be brought in during Q3 to address this issue.</p>	Out

	<p>covering or application of dust suppressant on soil piles and exposed areas.</p> <p>The Director may amend the permit to require the implementation of additional control measures on fugitive dust sources.</p>		
Requirement Type:	Requirement Description:	Details/Findings:	Compliance:
Monitoring	<p>3. MONITORING AND SAMPLING REQUIREMENTS</p> <p>3.1 Incoming Soil and Associated Ash Sampling and Analysis</p> <p>The Permittee must follow sampling procedures and frequency specified in the approved Soil Acceptance Plan described under Subsection 2.2 to verify soil and associated ash quality. The contaminants must include, but not be limited to, the parameters of concern listed in Subsection 1.3.3, as determined by a Qualified Professional. The Director may require testing of soil and associated ash for additional parameters.</p>	<p>Incoming material was subject to sampling, analysis and onsite record keeping as per the approved Soil Acceptance Plan and in accordance with Section 5.1 of the Discharge Permit (2016 Q2 Report, p. iii, 6).</p>	In
Requirement Type:	Requirement Description:	Details/Findings:	Compliance:
Monitoring	<p>3.3 Groundwater Sampling and Analysis</p> <p>Groundwater samples must be analysed for all potential contaminants of concern. The contaminants may include, but not be limited to, the parameters of concern listed in Subsection 1.3.3, as determined by a Qualified Professional. The groundwater quality must be compared to the standards described in Schedules 6 and 10 of the CSR or any additional standards specified by the Director in writing.</p>	<p>Quarterly monitoring sampling and analysis was conducted in 2016 Q2 at eight monitoring well locations (seven are required by the permit). With the exception of specific detections of arsenic in duplicate samples in MW1-S (0.0220 mg/L and 0.0105 mg/L versus the CSR DW standard of 0.01 mg/L) and manganese in MW-6 (1.79 mg/L versus the CSR DW standard of 0.55 mg/L) that are interpreted (based on historic data) to represent only background conditions, applicable standards were met (2016</p>	In

		Q2 Report p. iii, 19).	
Requirement Type:	Requirement Description:	Details/Findings:	Compliance:
Monitoring	<p>3.4 Surface Water Sampling and Analysis:</p> <p>The Permittee must sample the water treatment system effluent (WTS) and the settling pond discharge point (SW-1) monthly and every 2000 m3 for the water treatment system discharge effluent in a manner suitable to the Director.</p>	Water treatment system (WTS) and SW-1 monitoring, sampling, and analysis was conducted in 2016 Q2 in accordance with permit requirements (2016 Q2 Report p. iii).	In
Requirement Type:	Requirement Description:	Details/Findings:	Compliance:
Monitoring	<p>3.4 Surface Water Sampling and Analysis:</p> <p>Turbidity of the settling pond discharge effluent (SW-1) must be monitored biweekly between November to April and after every event greater than 1 in 10 year return period flood event of 24 hour duration.</p>	Turbidity monitoring is not required during this quarter.	Not Applicable
Requirement Type:	Requirement Description:	Details/Findings:	Compliance:
Monitoring	<p>3.4 Surface Water Sampling and Analysis:</p> <p>Surface water samples must be analysed for all potential contaminants of concern (PCOC). The contaminants may include, but not be limited to, the parameters of concern listed in Subsection 1.3.3, as determined by a Qualified Professional. The surface water quality results must be compared to the standards set out in Subsection 1.4.4 and 1.4.5.</p>	WTS sample results were compared to the standards as required. Discharge to the surrounding environment via the settling pond discharge point (E292898/SW-1) did not occur in 2016 Q2 (2016 Q2 Report p. iii, 19).	In
Requirement Type:	Requirement Description:	Details/Findings:	Compliance:
Monitoring	<p>3.5 Air Quality Monitoring</p> <p>The Permittee must collect monthly ambient air samples during the active season (i.e. between April and November, inclusive) at the down-wind property line</p>	Ambient air samples were collected as per Section 3.5 of the Discharge Permit including 24-hr time integrated Summa_ Canister-based sampling for volatile organic compounds with frequency	In

	<p>using a Summa Canister. Ambient air samples must also be collected using a Summa Canister if and when soils with measurable volatile contaminant concentrations exceeding the established thresholds are being managed or treated at the soil treatment facility at the location and as documented in the EPM.</p> <p>The ambient air sample must be analysed for the all potential contaminants of concern, as determined by a Qualified Professional, and results must be compared to the CSR Schedule 11 RL standards.</p>	<p>as per Section 3.5 of the Discharge Permit (2016 Q2 Report, p. 17).</p>	
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Requirement Type:	Requirement Description:	Details/Findings:	Compliance:
Monitoring	<p>3.5 Air Quality Monitoring</p> <p>In the event that results exceed the standards, the Permittee must follow the requirements stated under Subsection 2.9</p> <p>(Permittee must implement contingency measures defined in the EPM; The EPM section 8.1 states: If contaminant concentrations measured in the Summa_ Canister sample collected from the down_wind property line are found to exceed the CSR Schedule 11 Column III RL standards, soils within the SMA will be covered with non_permeable polyethylene sheeting or a cap of non_hydrocarbon contaminated soils. Covering the soils will be adequate to suppress the vapour emissions from impacting down_wind receptors, which will be verified by additional sample collection and analysis.).</p>	<p>Elevated parameters were detected in the April 28, 2016 air sample including carbon tetrachloride (0.68 ug/m³ versus the applicable CSR standard of 0.65 ug/m³) and naphthalene (7.75 ug/m³ versus the applicable CSR standard of 3 ug/m³) (2016 Q2 Report, p. ii, 16-17).</p> <p>Levels of carbon tetrachloride at the air sampling location fluctuate with an average of 0.51 ug/m³ (MRL 0.12 ug/m³) and a standard deviation of 0.13. Carbon tetrachloride is not considered a PCOC in import soil as indicated by data submitted in the Waste Approval Applications as well as incoming soil sampling requirements conducted in accordance with section 3.1 of the Discharge Permit. Naphthalene can be found in vehicle exhaust and insect repellent. Records indicate that the</p>	Not Applicable

		mine was shut down during sampling on April 28 to await the CVRD court appeal ruling against the stay granted on April 15, 2016. Given this circumstance, and the fact that naphthalene exceedances have never been observed at the air sampling location, it is interpreted that the detection of this parameter may have been generated by an outside source. The location of the air sampling station is outside the mine boundary and is accessible to the public. This parameter will continue to be monitored. No odours were observed by SIRM staff, or reported directly to SIRM by others, at or beyond the property line (2016 Q2 Report, p. 17).	
Requirement Type:	Requirement Description:	Details/Findings:	Compliance:
Monitoring	<p>3.6 Receiving Environment Sampling</p> <p>The Permittee must implement a receiving environment monitoring program for the receiving groundwater and surface water summarized in the table below and as defined under the EPM:</p> <p>Groundwater Up Gradient (Quarterly Sample): EMS Site E305357 (MW-4) [now MW-6 E305357] [commissioned in 2016] Southeast corner of the site</p> <p>Groundwater Down Gradient (Quarterly Sample): E305358 (MW-1(/D)) Onsite E305359 (MW-2) Property Boundary E305594 (MW-3(S/D)) Property Boundary E305360 (MW-5) North of Site</p>	Quarterly monitoring sampling and analysis was conducted in 2016 Q2 at eight monitoring well locations (seven are required by the permit) (2016 Q2 Report p. iii, 10).	In
Requirement Type:	Requirement Description:	Details/Findings:	Compliance:

<p><u>Monitoring</u></p>	<p>3.6 Receiving Environment Sampling</p> <p>The Permittee must implement a receiving environment monitoring program for the receiving groundwater and surface water summarized in the table below and as defined under the EPM:</p> <p>Surface Water Up Gradient (5 in 30*(2 times/year, conducted during fall first flush event and in the spring freshet)) E305361 (SW-4) Shawnigan Creek E305362 (SW-2) Ephemeral Creek 1</p> <p>Surface Water Down Gradient (5 in 30*(2 times/year, conducted during fall first flush event and in the spring freshet)) E305363 (SW-3) Ephemeral Creek 2 E305364 (SW-5) Shawnigan Creek</p> <p>*5 in 30 refers to at least 5 weekly samples taken in a period of 30 days. Due to the ephemeral nature of some of the creeks, the first 5 in 30 sample should be collected when the ground has been saturated.</p> <p>Flow measurements must be collected from all surface water monitoring locations at the time of sampling.</p>	<p>Monitoring of the Site receiving environment surface water stations (spring freshet) took place in 2016 Q2 in accordance with Section 3.6 of the Discharge Permit. Applicable standards were all met (2016 Q2 Report, p. iv, 17).</p>	<p><u>In</u></p>
<p>Requirement Type:</p> <p><u>Reporting</u></p>	<p>Requirement Description:</p> <p>5.2 Environmental Quarterly Reports</p> <p>The Permittee must submit environmental quarterly reports prepared by a Qualified Professional with all monitoring data and associated QA/QC results, interpretations, conclusions</p>	<p>Details/Findings:</p> <p>2016 Q2 Report was received by MOE on July 29, 2016.</p>	<p>Compliance:</p> <p><u>In</u></p>

	and recommendations in a format acceptable to the Director and post the results online and provide a hard copy to the Director no later than 30 days after the end of each quarter.		
Requirement Type:	Requirement Description:	Details/Findings:	Compliance:
Reporting	<p>5.2 Environmental Quarterly Reports</p> <p>The Permittee must submit environmental quarterly reports prepared by a Qualified Professional with all monitoring data and associated QA/QC results, interpretations, conclusions and recommendations in a format acceptable to the Director and post the results online and provide a hard copy to the Director no later than 30 days after the end of each quarter.</p>	The Q2 report was not posted online at http://www.sirm.ca/community.html 30 days after the end of the quarter.	Out
Requirement Type:	Requirement Description:	Details/Findings:	Compliance:
Reporting	<p>6.1 Non-compliance Reporting</p> <p>For any non-compliance with the requirements of this permit, the Permittee must submit to the Director, Environmental Protection, a written report within 30 days of the non-compliance occurrence. The report must include, but is not necessarily limited to, the following:</p> <p>a) all relevant test results related to the non-compliance;</p> <p>b) an explanation of the most probable cause(s) of the non-compliance; and</p> <p>c) remedial action planned and/ or taken to prevent similar non-compliance(s) in the future.</p>	The non-compliance report regarding the Water Treatment Discharge from June 11, 2016 to June 16, 2016 was received from Amy Osterholm (on behalf of Todd Mizuik) on July 11, 2016. This satisfies the 30 day written report requirement within Section 6.1 Non-compliance Reporting.	In
Requirement Type:	Requirement Description:	Details/Findings:	Compliance:
Reporting	6.1 Non-compliance	A non-compliance report was not submitted	Out

Reporting
 For any non-compliance with the requirements of this permit, the Permittee must submit to the Director, Environmental Protection, a written report within 30 days of the non-compliance occurrence. The report must include, but is not necessarily limited to, the following:
 a) all relevant test results related to the non-compliance;
 b) an explanation of the most probable cause(s) of the non-compliance; and
 c) remedial action planned and/ or taken to prevent similar non-compliance(s) in the future.

regarding the fugitive dust exceedance that occurred in June 2016. The measured level was above the B.C. Ambient Air Quality Residential Objective (4.1 mg/dm²/Day versus the 1.7 mg/dm²/Day objective) (2016 Q2 Report, p. ii, 16).

Were the following collected during inspection:

Samples? **Photos?** **EMS No.**

Other (please specify)

Is the Inspection related to an EA Project?

EA Project Certificate Number:

INSPECTION CONDUCTED BY:

Signature

Connor Fraleigh

Date Signed

2016-11-16

ENCLOSURE(S) TO REGULATED PARTY & DESCRIPTION:

CVIS Archives

REGULATORY CONSIDERATIONS:

DISCLAIMER:

Please note that sections of the permit, regulation or code of practice referenced in this inspection record are for guidance and are not the official version. Please refer to the original permit, regulation or code of practice.

To see the most up to date version of regulations and codes of practices please visit:

<http://www.bclaws.ca/>

If you require a copy of the original permit, please contact the inspector noted on this inspection record or visit: <http://www2.gov.bc.ca/gov/topic.page?id=DF89089126D042FD96DF5D8C1D8B1E41&title=Publicly%20Viewable%20Authorizations>

<http://www2.gov.bc.ca/gov/topic.page?id=DF89089126D042FD96DF5D8C1D8B1E41&title=Publicly%20Viewable%20Authorizations>

It is also important to note that this inspection record does not necessarily reflect each requirement or condition of the authorization therefore compliance is noted only for the requirements or conditions listed in the inspection record.

Ministry of Environment	West Coast	Mailing Address:	Phone: (250) 751-3100
	Region	2080-A Labieux Rd	Fax: (250) 751-3103
	Environmental Protection Division	Nanaimo, BC V9T 6J9	Website: http://www.gov.bc.ca/env