Environmental Management System Manual

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14	Apr 17, 2025	Use	Brad Walker	Brad Walker
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DISCLAIMER

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Emergency Response Equipment List	Health & Safety Portal

ABBREVIATIONS

AFE	Approved Financial Expenditures
BCMEA	British Columbia Maritime Employers Association
BC MOECCS	British Columbia Ministry of Environment and Climate Change Strategy
BOD	Biological Oxygen Demand
CAR/PAR	Corrective Action Records/Preventative Action Records
CCME	Canadian Council of Ministers of the Environment
CEAA	Canadian Environment Assessment Act (Reference Only – No Longer in Use)
CEPA	Canadian Environmental Protection Act
CN	Canadian National (Railway)
CNV	City of North Vancouver
CNWA	Canadian Navigable Waters Act
CSR	Contaminated Site Regulations
CWTS	Coal Water Treatment System
DBWTS	Dry-Bulk Water Treatment System
DCSE	Director of Community and Stakeholder Engagement
DD	Due Diligence
DDR	Due Diligence Report
DFO	Fisheries and Oceans Canada
DOPC	Director of People & Community
EAA	Environment Assessment Act
ECCC	Environment and Climate Change Canada
ELT	Executive Leadership Team
EMA	Environment Management Act
EMS	Environmental Management System
EPRP	Emergency Preparedness and Response Plan
FA	Fisheries Act
FT	Flow Turbidity
GVS&DD	Greater Vancouver Sewer & Drainage District
GVRD	Greater Vancouver Regional District
HSE	Health and Safety Environment
HSMS	Health and Safety Management System
IAA	Impact Assessment Act
MBCA	Migratory Birds Convention Act
MOE	Ministry of Environment
MV	Metro Vancouver
NBT	Neptune Bulk Terminals (Canada) Ltd.
NPRI	National Pollutant Release Inventory
PCB	Polychlorinated biphenyls
QA/QC	Quality Assurance/Quality Control
SARA	Species at Risk Act
SEA	Significant Environmental Aspects
SHE&S	Safety, Health, Environmental, & Security Committee
SOM	Supervisor's Operating Manual
SOP	Standard Operating Procedure
TDG	Transportation of Dangerous Goods Act
TOG	Total Oil and Grease
TSS	Total Suspended Solids
VFPA	Vancouver Fraser Port Authority
VP	Vice President
VPAM	Vice President Asset Management
VPF	Vice President Finance
VPHSE	Vice President Health, Safety & Environment
VPO	Vice President Operations
WCA	Workers Compensation Act
WSA	Water Sustainability Act

1 INTRODUCTION AND KEY DEFINITIONS

1.1 INTRODUCTION

Neptune Bulk Terminals (Canada) Ltd. (NBT) is committed to excellence in environmental stewardship in the full extent of its business.

NBT's Environmental Management System (EMS) is comprised of policy, programs, procedures, and this manual. These collectively define environmental management at NBT and are in general accordance with International Standard for Environmental Management Systems ISO 14001: 2015. Guided by a site-specific Environmental Policy, NBT's EMS:

- Identifies and provides plans to manage the environmental aspects of NBT's business ('PLANNING')
- Establishes objectives, targets, programs, procedures, operational controls, and training for the effective management of Significant Environmental Aspects (SEAs) to minimize their environmental impacts ('IMPLEMENTATION AND OPERATION')
- Develops a system of monitoring and procedures to check the effectiveness of the EMS in general ('VERIFICATION AND CORRECTIVE ACTION')
- Engages in ongoing management review to ensure that the EMS remains appropriate to the nature and scale of NBT's operations ('MANAGEMENT REVIEW')
- Adheres to a philosophy of continuous improvement in all its management systems

1.2 SCOPE

This EMS Manual addresses environmental management of all NBT's activities. This includes the receiving, storage, loading, and management of bulk solid materials at the Terminal by all persons doing work under the control of NBT. The scope of the EMS considers the impacts of and to interested parties, as well as their needs and expectations, and addresses all business conducted from:

Table 1-1: NBT Locations

LOCATION	ADDRESS
Terminal	1001 Low Level Road, North Vancouver BC V7L 1A7
Forester Office	301 – 111 Forester Street, North Vancouver, BC V7H 0A6
Brooksbank Office	100 – 340 Brooksbank Avenue, North Vancouver BC V7J 2C1
Skeena Warehouse	525 N. Skeena Street, Vancouver, BC V5K 3P5
Bridgeway Warehouse	3484 Bridgeway, Vancouver, BC V5K 1B6

1.3 PURPOSE

NBT is committed to continually improving the suitability, adequacy, and effectiveness of the EMS to enhance their environmental performance. The purpose of this EMS manual is to:

- Identify the significant environmental aspects of NBT's operations and describe procedures and strategies for managing these aspects.
- Outline relevant compliance obligations to which NBT subscribes and highlight the compliance and reporting terms that need to be met.

- Identify and define the roles, responsibilities and authority of personnel involved in environmental management.
- Provide guidance to management, staff, and contractors for maintaining high standards of environmental management at NBT.
- Provide guidance on training and staff development in environmental management.
- Provide protocols for audits and senior management review.
- Provide guidance on QA/QC procedures for sampling.
- Provide guidance on procedures for continuous improvement.
- Identify needs and requirements of other interested parties in the EMS including those of employees, Unions, BCMEA, VFPA, Metro Van, and BC MOECCS.

1.4 KEY DEFINITIONS

ENVIRONMENTAL ASPECT

An Environmental Aspect (also referred to as an environmental risk) is an element of a facility's activities, products, or services that interacts, or may interact, and/or cause a change to the environment.

SIGNIFICANT ENVIRONMENTAL ASPECT

A Significant Environmental Aspect is any environmental aspect identified by the NBT EMS Committee, or designate, as having the potential to produce a significant environmental impact. The primary function of this EMS is handling/tracking NBT's SEAs.

1.5 ENVIRONMENTAL INITIATIVES

Improvements at the terminal are ongoing; specific items may change each year and will be recorded in the annual senior management EMS meeting minutes.

1.6 EMS COMMITTEE

Members of the EMS Committee, appointed by the president (or their designate), may include:

- Vice President – Operations
- Vice President – Health, Safety, & Environment
- Health and Safety Manager
- Operations Manager
- Maintenance Manager
- Operations Superintendents

Others will be invited to EMS committee meetings as required.

1.7 EMS MANUAL DOCUMENTATION

This EMS Manual includes guidance and/or procedures for all the main elements as referenced in ISO 14001: 2015 including:

INTRODUCTION

Describes the scope and purpose of the EMS and provides an outline of the EMS manual contents.

ENVIRONMENTAL POLICY

Contains the current NBT Environmental Policy and creates the framework for Environmental Management at NBT.

EMS PROCEDURES

Systematic documented instructions to implement and maintain a viable EMS at NBT. These include guidance on:

- Planning, including environmental aspect identification, definition of environmental targets using an Environmental Scorecard (see Figure 7-1: Environmental Targets), tracking legal and other related obligations, and setting environmental performance objectives and programs.
- Logistics, including personnel training and defined EMS roles (organization) to setting and maintaining standard operating procedures.
- Managing non-conforming action items by determining the root cause and potential for reoccurrence. Once an action item is closed, there will be review for the effectiveness of action taken.
- Performance monitoring, from air/effluent sampling to environmental audits.
- Management review, as a systematic check by senior management on how well the EMS is performing.

1.8 LIST OF ENVIRONMENTAL CONDITIONS

NBT's EMS addresses internal and external issues, as well as focuses on how NBT's operations affect the environment. The environmental conditions that affect NBT's EMS, site, and operations are also taken into consideration. NBT commits to monitoring all environmental conditions that could potentially have adverse effects on their operations, as well as updating this list, procedures and protocol as needed.

Table 1-2: List of External Conditions

ENVIRONMENTAL CONDITION	POTENTIAL IMPACTS	NBT ACTIONS
Climate Change	Increasing temperatures, heatwaves, cold spells, rising water lines, diminishing resources/rising resource costs.	Exploring alternative energy solutions, implementing new strategies to minimize NBT's contribution to climate change, finding alternative methods of operation, following all relative regulations and bylaws.
Burrard Inlet Water Quality	Warmer temperatures, fluctuating tides, increase in algae, increased contaminants from pollution.	Ensuring all wastewater discharged into the ocean is properly treated, contributing to ocean clean-up initiatives, following all relative regulations and bylaws.
Wildfires	Mobilized contaminants, water pollution from ash, release of CO^2 into the atmosphere, damage to the terrain affected by the fire.	Ensuring proper fire suppression and prevention measures are in place, following all relative regulations and bylaws.
Population Increase/Densification	Increased air pollution, noise pollution, resource/energy consumption, additional housing needs, additional traffic, a need for sustainable infrastructure.	Optimizing energy efficiency where practicable throughout site and in operations, continuing to be involved in the community and working with the City of North Vancouver and neighbouring residents, improving waste management, following all relative regulations and bylaws.
Political	Laws, bureaucracy, changing regulations, labour strikes and negotiations.	Continued engagement with local government bodies and community, adherence to all laws and regulations, maintaining good relations with Unions.
Legal	Consultation, potential fines, liabilities.	Legal counsel engagement, review of all practice and procedure documents for compliance with all.
Economic	Market fluctuation, cost of living increases, recession, labour shortages.	Establish structures for effective economic development programming, financial analysis, alignment across all departments.
Social	Community engagement (or lack thereof), increased complaints.	Continued efforts to be a good neighbour, participation in community activities, fundraising/supporting charities, mitigation measures for noise dust and light.

1.9 LIST OF INTERESTED PARTIES

NBT takes all interested parties that may be affected by site operations into consideration. Most of the needs and expectations of the interested parties are shared by NBT: to have the lowest possible dust, water, noise and light pollution, a strong, supportive relationship with its neighbours, and to be part of a safe, thriving community. All interested parties' needs are treated as either obligations or compliance, and thus are a major influence on the management of the EMS. NBT implicitly considers the root cause and broader context of any issues associated with non-conformities and interested parties' needs and expectations when crafting corrective action plans. NBT is dedicated to meeting all environmental obligations, maintaining good relationships with interested parties, and striving for continuous improvement in environmental management.

Table 1-3: List of Interested Parties

PARTIES	INTERESTED PARTIES' NEEDS	COMPLIANCE OR OBLIGATIONS
North Shore Residents	Dust, noise (possibly from rail activity, less likely from operations), noise from special construction projects, light pollution during nightly operations, possible water pollution.	Obligation for ongoing communication with the community, continued use of proven, successful mitigation methods and consistent efforts to steadily improve and discover new ways to reduce dust, noise, and light.
Residents Living in Proximity to the Terminal	Dust, noise from railcars and operations, noise from construction projects (e.g., pile driving activities), light pollution from nightly operations, possible water pollution.	Obligation for engaging in the local community, offering support to our neighbours when concerns arise, regularly monitoring limits throughout the neighbourhood, meeting or exceeding all regulatory standards, meeting all permit requirements for regular operations and special projects, and consistently striving for improvement.
South Shore Residents	Noise from railcars and operations travelling across the inlet, light pollution from nightly operations, possible dust, possible water pollution.	Compliance and obligation for frequent community engagement, frequent notifications and open communication, monitoring limits, meeting permit requirements, mitigation through engineered controls and operational procedures.
Commercial/Retail Businesses Operating in Proximity to the Terminal	Dust, noise and light pollution from operations and construction activities, possible water pollution.	Compliance and obligation for monitoring limits throughout neighbouring areas of commerce, using prevention measures to reduce emissions and minimize dust, noise, and light pollution, maintaining a strong presence within the business community through hosting and participating in events, partnering with local businesses, and providing support for any concerns that may arise.
Other Terminal Operators Adjacent to NBT	Dust, noise from terminal operations and construction activities, reputational harm by association if NBT has an environmental incident (e.g., a spill by one terminal taints all others in the port)	Compliance and obligation for open and frequent communication with port neighbors, maintaining the established environmental and safety programs, working in conjunction with other local terminals during special projects when required, offering support as needed.
First Nations (Squamish, Tsleil-Waututh, Musqueam)	Impacts to traditional territory, loss of use of land for traditional purposes, dust, possible water pollution, effects of construction activities on wildlife.	Obligation for transparent communication, inclusion in special projects, use of preventative measures to protect the land and animals native to the area, conducting business with respect for the culture, land, and traditions.
City of North Vancouver Municipal Government	Dust and noise, municipal water usage, possible sewer contamination from run-off, complaints from Residents.	Compliance to applicable bylaws and addressing community complaints in a timely manner. Providing transparent communication and support within the community, acting with the North Shore and environment's best interest as top priority.
District of North Vancouver Municipal Government	Dust and noise, municipal water usage, possible sewer contamination from run-off, complaints from Residents.	Compliance to applicable bylaws and addressing community complaints in a timely position. Providing transparent communication and support within the community, acting with the North Shore and environment's best interest as top priority.
Provincial Authorities	Complaints from constituents, permit non-conformities, possible spills/pollution.	Compliance to open and transparent communication, annual review of applicable regulations, ensuring permit compliance and performing both internal and 3rd party audits of procedures and protocols.
Federal Authorities	Complaints from constituents, permit non-conformities.	Compliance to open and transparent communication, annual review of applicable regulations, ensuring permit compliance and performing both internal and 3rd party audits of procedures and protocols.
Employees, Unionized Supervisors and Workforce, Contractors	Exposure to dust or poor air quality, exposure to excessive noise while on site, risk of injury working around active equipment.	Compliance and obligation for maintaining established environmental protocol and training, frequent notifications and open communication, monitoring limits across site, meeting permit requirements, mitigation through engineered controls and operational procedures.

LIST OF INTERESTED PARTIES (CONT'D…)

PARTIES	INTERESTED PARTIES' NEEDS	COMPLIANCE OR OBLIGATIONS
BCMEA	Terminal operations, outages, impacts to waterfront workers	Working conditions that comply with all labour laws, open and honest labour relations.
Unions	Terminal operations, outages, impacts to waterfront workers	Working conditions that comply with all labour laws, open and honest labour relations.
The General Public	Noise from railcars, light pollution from nightly operations, possible dust, possible water pollution.	Obligation for ongoing communication with the community, continued use of proven, successful mitigation methods and consistent efforts to steadily improve and discover new ways to reduce dust, noise, and light.
Ministry of Environment (MoE)	Complaints from constituents, permit non-conformities, possible spills/pollution.	Compliance to open and transparent communication, annual review of applicable regulations, ensuring permit compliance and performing both internal and 3rd party audits of procedures and protocols.
Vancouver Fraser Port Authority	Complaints from constituents, permit non-conformities, possible spills/pollution, and non-road diesel emission reporting.	Compliance to open and transparent communication, annual review of applicable regulations, ensuring permit compliance and performing both internal and 3rd party audits of procedures and protocols.
Metro Vancouver	Dust and noise, water usage, possible sewer contamination from run-off, complaints from Residents.	Compliance to applicable bylaws and addressing community complaints in a timely position. Providing transparent communication and support within the community, acting with the North Shore and environment's best interest as top priority.
Suppliers	Continuing terminal operations, supply chain disruption, long lead times, demands for parts and materials.	Obligation for open and honest communication, due diligence, terms and conditions, estimates/quotes, contracts, and other documentation.
Railroad	Rail traffic, loading schedule, schedule delays, possible derailments.	Compliance to open and transparent communication, adhere to all applicable rail-related regulations, coordination with CN.
Law Enforcement & Emergency Response Agencies	Emergency response plan & procedures, clear access ways, muster stations, alert system.	Compliance to open and transparent communication, annual review of applicable regulations, ensuring permit compliance and performing both internal and 3rd party audits of procedures and protocols.
Green Marine	Community impacts, community relations, dry bulk handling & storage, environmental leadership, greenhouse gas emissions, spill prevention and stormwater management, underwater noise, waste management.	Voluntary participation, annual self-assessment submission, biennial submission to 3rd party verifier, honesty and transparency, ongoing improvement efforts.
Climate Smart	Terminal operations, CO_2 emissions, accurate measurement, ongoing efforts towards reduction, offset plan, community impact.	Training, establishing baseline, mapping emissions, compliance with greenhouse gas protocol, create emissions reduction strategy, actionable plan for emissions reduction, certification.

1.10 CONTINUOUS EMS IMPROVEMENT

The EMS actively monitors legislation and permits, proposes and executes improvements, and reports on all NBT's recognized "**Environmental Aspects**" and their associated environmental impacts.

The EMS Committee meets annually in Spring to direct and agree upon EMS progress.

Senior Management meets annually in Q3 to review and endorse NBT EMS activities.

NBT's SHE&S Committee annually approves Appendix A of the EMS Manual, the Environmental Aspects Management Table.

The EMS Manual "pending revision" (including recently approved Appendix A) is reviewed by the VPHSE annually and, upon approval, is finalized and issued as the new current revision. A "Work in Progress" draft for the next revision is also started and filed in Environmental | Working Files.

The issued current revision is located on Environmental Portal | Policies.

3 ENVIRONMENTAL POLICY

ENVIRONMENTAL POLICY

Environmental stewardship is a core value of Neptune Bulk Terminals (Canada) Ltd. NBT recognizes that environmental excellence is integral to our long-term business success.

To support this Core Value, NBT has adopted a philosophy of continuous improvement of environmental performance.

NBT is committed to:

- The principles of ***pollution prevention***, conservation and sustainability;
- Using resources efficiently and effectively;
- Demonstrating excellence by meeting, and where practicable, exceeding all applicable environmental ***compliance obligations***;
- Demonstrating respect for the values of our surrounding community and ***communicating openly*** with our stakeholders;
- Air quality, water quality, conservation, waste management, and community stewardship.
- Maintaining and continuously improving an Environmental Management System to support excellence which includes:
  - **Continual environmental improvement** by reviewing environmental objectives, setting targets, measuring performance and implementing necessary change;
  - **Monitoring** environmental performance through internal and external audits;
  - **Reporting** environmental performance to the Board of Directors, employees, regulatory authorities, and other stakeholders; and
  - Providing a high level of **employee and contractor training** to ensure responsible work practices.

NBT will review this policy annually to ensure that it reflects our ongoing commitment to environmental stewardship.

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President

Dave Foy
VP Operations

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VP, Finance & Administration

Brad Walker
VP Health, Safety & Environment

Amanda Sutton
General Counsel

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Director, People & Community

Vincent Johns
VP, Asset Management

Issue Date:	2025		Title:	**Environmental Policy**
Revision:	17.0		Approved by:	VP, Health Safety & Environment
Page:	1 of 1		Intranet Routing:	R:\Environmental\EMS Central\1.1 Policy and Procedures\1.1.1 EMS Manual\Rev 17

NBT's Environmental Policy is maintained and communicated internally and to external stakeholders, including the public.

PROCEDURE

1. SHE&S Committee approves the company Environmental Policy, as proposed by NBT's Executives.
2. The Environmental Policy is posted for employees to see in the following areas:
    - Hard copy EMS Manuals are located at the following locations:
        - Administration Office Area
        - Operations Building
        - Site Office Trailers
    - Electronic copy of the EMS Manual is accessible on SharePoint in Environmental Portal | Policies.
3. The Environmental Policy is communicated to:
    - All staff on initial hire and through multiple postings around NBT's site.
    - All staff in the Annual Training Package.
    - Significant stakeholders, including major contractors and suppliers, by the VPHSE, or their designate.
4. The policy is also posted on NBT's public website: www.neptuneterminals.com

FREQUENCY

The EMS Committee reviews the adequacy of the Environmental Policy on an as-needed basis.

RECORDS

- Signed Environmental Policy
- Management Review Record(s)

4 IDENTIFICATION AND REVIEW OF ENVIRONMENTAL ASPECTS

PURPOSE

To provide the basis for identification and review of environmental aspects associated with NBT operations.

SEA(s) are identified by the EMS Committee and addressed on a priority basis. Consideration is given to the complete life cycle of the SEA(s), including design, construction, operation, decommissioning, waste disposal, and end of life concerns.

DETERMINING SIGNIFICANT ENVIRONMENTAL ASPECTS

The approach for determining which aspects have significant impact(s) analyzes overall Risks and is a crucial step in EMS planning. For example:

likelihood x consequence (business/environmental/interested party) x controls

SEA classification affects many other EMS elements, such as setting objectives and targets, establishing operational controls, and defining monitoring needs.

The EMS Committee is selective in classifying Environmental Aspects as significant because overloading the EMS with SEAs will reduce the overall effectiveness of the EMS and undervalues core SEAs.

A Risk Assessment Matrix (see Figure 4-1: Risk Assessment Matrix) is used to determine which aspects are significant.

1. The following conditions will be considered when defining, identifying, and revising environmental likelihood and significance consequence:

Table 4-1: General Conditions to Consider

CONDITIONS	
Existing, normal operating conditions.	Installation of new controls.
Approved recommendations from internal and external stakeholders.	Actions to address opportunities.
	Life-cycle perspectives.
Internal and external issues identified in the context review.	Historical site conditions.
	Modified production/projects.
Needs and expectations of interested parties that become compliance obligations.	Post environmental incidents (upset conditions).
	New or modified regulations or permit amendments.

2. If any emergency situations or potential emergency aspects are identified during the SEA identification process, they will be included in the aspect table.
3. The Environmental Likelihood and Environmental Consequence tables below are to be used as framework for deciding the Risks and Opportunities during the determination of a SEA. Ultimately, the knowledge and observations of SMEs and site personnel are used to assign aspect significance.
4. The Environmental Aspect Management Table will:
    - Document objectives, targets, programs, applicable regulatory requirements, and standard operating procedures.

- Be reviewed by the EMS Committee annually.
- Be date-versioned and saved as Appendix A in the Manual. The latest reviewed electronic version and electronic pending version (work in progress) are stored on SharePoint.

Table 4-2: Environmental Likelihood Table

RANK	LIKELIHOOD	DESCRIPTION
1	Almost Certain	Event is a common or frequent occurrence (daily)
2	Likely	Event is expected to, or has occurred under some conditions (monthly)
3	Possible	Event will probably occur, or has occurred, under some conditions (yearly)
4	Unlikely	Event could occur at some time, or has happened elsewhere (every 10 years or greater)
5	Rare	Event is not expected to occur, but may under exceptional circumstances

Table 4-3: Environmental Consequence Table

CONSEQUENCE	ASPECT AREA	DESCRIPTION
Catastrophic	Environmental	Extensive and immediate damage to a large receiving environment area; urgent and immediate remedial action is required
	Legal	Major non-compliance; potential for significant fines; criminal liability; litigation
	Business	Immediate/pending site closure
	Public	Significant opposition, locally and/or regionally
	Controls	Absent and/or completely ineffective
Major	Environmental	Significant damage to local receiving environment; chronic nuisance to neighbours
	Legal	Non-compliance with potential Pollution Abatement Order issued; moderate fines issued
	Business	Clean-up costs (significant); possible reduction in sales due to public scrutiny
	Public	Mostly opposed, locally and /or regionally
	Controls	In place but mostly ineffective
Moderate	Environmental	Recoverable, small volume, low toxicity excursion to the receiving environment; no long-term or pervasive damage
	Legal	Administrative non-compliance with regulations, potential warning letter issued; manifests, unpermitted compressor cooling water discharges, late or incomplete emissions reports, permit amendment required; Potential new permit or amendment
	Business	Clean-up costs moderate and no residual effect on property value or sales
	Public	Moderate opposition, predominantly local
	Controls	In place and working sporadically
Minor	Environmental	Small interaction with receiving environment; likely contained to site; likely no effect
	Legal	Minor violation; inspection non-compliance; not a reportable incident
	Business	Low corrective action cost
	Public	Few people opposed; local
	Controls	Mostly working as intended but some adjustments may be necessary, including training
Minor	Environmental	Small interaction with receiving environment; likely contained to site; likely no effect
	Legal	Minor violation; inspection non-compliance; not a reportable incident
	Business	Low corrective action cost
	Public	Few people opposed; local
	Controls	Mostly working as intended but some adjustments may be necessary, including training

RISK ASSESSMENT MATRIX					
	CONSEQUENCE				
LIKELIHOOD	**Minimal** No impact, non-reportable	**Minor** Minor impact, non-reportable	**Moderate** Reportable non-compliance	**Major** Reportable non-compliance	**Catastrophic** Significant Environmental Event
Almost Certain Event is common occurrence (daily)	Significant Risk	Significant Risk	High Risk	High Risk	High Risk
Likely Event is expected to, or has occurred under some conditions (monthly)	Low Risk	Moderate Risk	Significant Risk	High Risk	High Risk
Possible Event will probably occur, or has occurred, under some conditions (yearly)	Low Risk	Low Risk	Moderate Risk	Significant Risk	High Risk
Unlikely Event could occur at some time, or has happened elsewhere (every 10 years or greater)	Low Risk	Low Risk	Low Risk	Moderate Risk	Significant Risk
Rare Event is not expected to occur, but may under exceptional circumstances	Low Risk	Low Risk	Low Risk	Low Risk	Moderate Risk

	Low Risk
	Moderate Risk – Significant
	Significant Risk
	High Risk – Significant

Figure 4-1: Risk Assessment Matrix

FREQUENCY

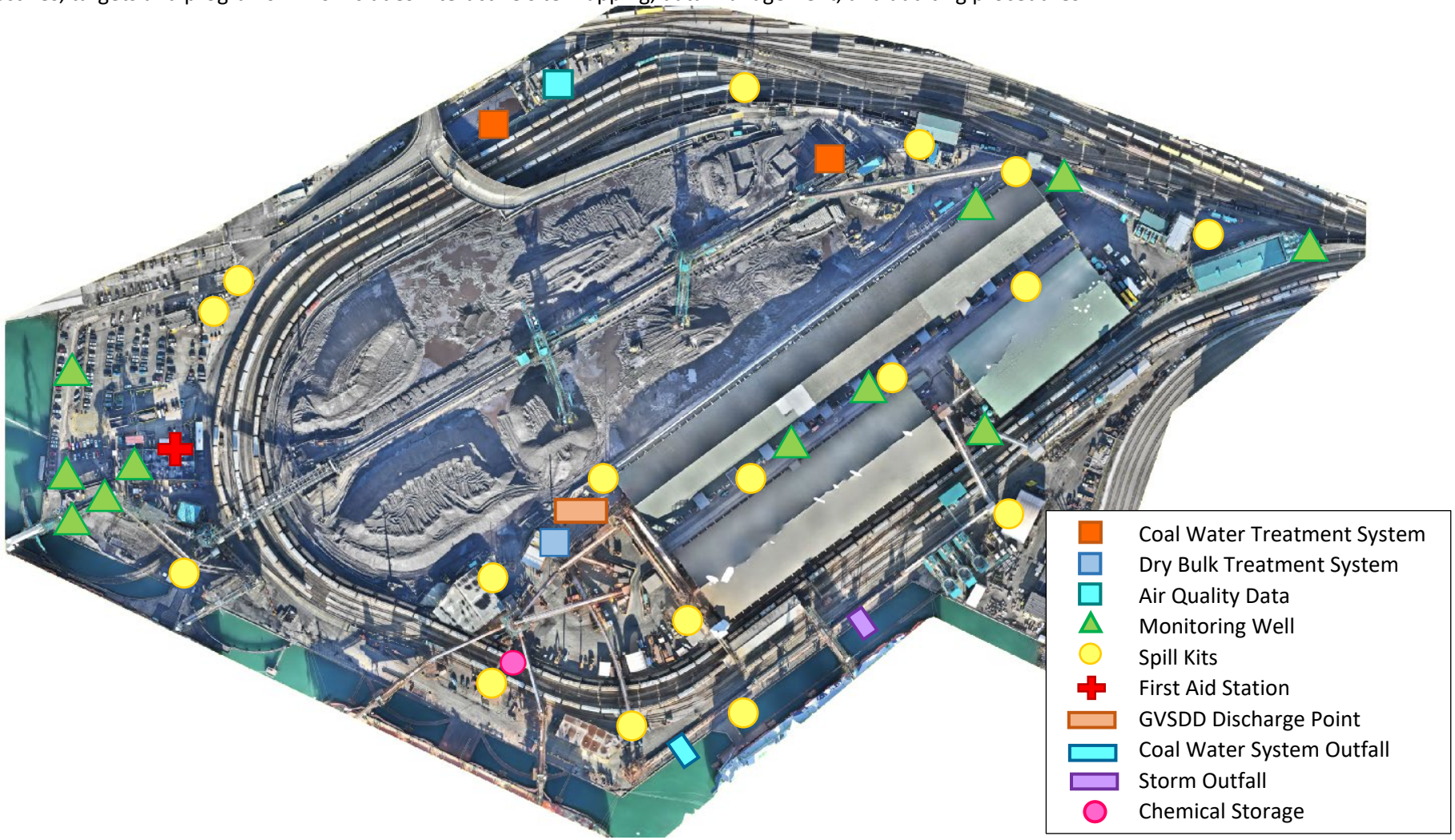
This SEA identification process is repeated annually and as needed during the planning stages of new projects or process modifications.

RECORDS

- Environmental Aspect Management Table

5 SITE ENVIRONMENTAL CONTROLS OVERVIEW MAP

NBT uses the EMS to track environmental aspects and all related actions, such as recording incidents, populating reports, maintaining records, outlining objectives, targets and programs. This includes interactive site mapping, data management, and auditing procedures.



6 LEGAL AND OTHER REQUIREMENTS

PURPOSE

To identify, track, and implement applicable regulations, permits, local bylaws, and other requirements that NBT supports.

PROCEDURE

1. The Legal and Other Requirements Register (Compliance Obligations Register) includes applicable regulations, permits, and other obligations the company supports.

2. It will be kept up-to-date and any changes to operations (e.g., Procedures and Emergency Response Plan) will be implemented in a timely fashion to ensure compliance. Resources that may be used to keep the register current:
    - External legal counsel
    - External environmental consultant(s)
    - Internet regulatory searches
    - Government agency liaison/communication
3. To identify new applicable legal and other requirements, one or more of the following may occur:
    - Environmental consultant(s) to be retained to review new and revised legislation and regulations, etc. upon publication.
    - External legal counsel to perform annual review.
    - The EMS Committee considers impacts to EMS and compares operating procedures.
    - EMS, EPRP, and operating procedures, etc. are updated accordingly to include the new publication(s).
4. On-going permits (e.g., BC Ministry of Environment Discharge to Burrard Inlet Permit PE-06898, Metro Vancouver Water Discharge Permit SC-100002-NSSA, MOE Permit PE-109531, and Air Quality Management Permit GVA0081) and short term permits for managing environmental aspects (e.g., groundwater management) will be included.

FREQUENCY

Legal and other requirements are revised on a:

- Timely basis, after new or modified regulations are issued
- After permit amendments
- Routine basis as part of the annual management review
- As needed by projects or changes that require new amendments, approvals or permits

RECORDS

- Legal Register.
- Metro Vancouver Air Permit and Waste Discharge Permit.
- MOE Discharge Permit.
- VFPA, DFO, ECCC and other project related permits from Authorities having Jurisdiction.

7 PLANNING AND DEVELOPMENT OF ENVIRONMENTAL PROGRAMS AND OBJECTIVES

PURPOSE

To outline effective management and impact reduction for Significant Environmental Aspects, provide clear framework for setting environmental objectives and for planning, approval, development, and implementation, and plan the tracking of environmental programs.

The scope of environmental planning covers environmental aspects (significant and routine) and 5-year plans for the introduction of new products, modified processes and projects.

PROCEDURES

1. NBT's Corporate Environmental Objective is to reduce NBT's impact upon, and to improve environmental performance upon:

    - Air Environment.
    - Water Use and Discharges.
    - Marine and Terrestrial Ecosystems.
    - Community Issues.
    - Residual and Chemical Management.
    - Prevention of Soil and Groundwater Contamination.
    - Resource Utilization.

2. As a minimum, the following will be considered in planning and developing targets, action plans and programs associated with Significant Environmental Aspects:

    - Environmental policy commitments.
    - Environmental aspects as per management, standing targets, and annual planning tables.
    - Applicable laws and regulations including consideration of potential future laws and regulations.
    - Practical business criteria, such as potential costs and benefits of pursuing a particular environmental objective or the implementation of a program.
    - Technical feasibility.
    - The views of employees and other interested parties (which include Union, BCMEA, Vancouver Fraser Port Authority, Metro Vancouver, and BCMOE) where relevant.
    - Status of existing programs (e.g., are additional programs viable if others have not yet been completed?).
    - Achievable targets.
    - Monitoring and measurement methods and criteria.
    - Roles and Responsibilities.

3. Objectives, targets and action plans are developed and documented for each Significant Environmental Aspect (SEA identified as "Yes" in Appendix A). Objectives, targets, and action plans that make "good business sense" may also be developed for other (non-significant) aspects.

4. Many Significant Environmental Aspects will always remain critical to NBT's Environmental Policy, meaning the Aspects Management Table (Appendix A) may remain almost unchanged from year to year. Standing targets are associated with the 5-year plan and usually repeat from year to year.

5. The EMS Annual Planning Table Template is a summary table of proposed Action Plans toward reducing the impact (risk) of NBT environmental aspects in the next fiscal year. The Annual Planning Table and

Multi-Year Standing Targets are located in SharePoint | Environmental Portal and approved by the SHE&S Committee.

6. NBT tracks SEAs status by listing indicators within the "Multi-Year Standing Table". Real-time data will be recorded over the course of the year, and the measured data will be evaluated and compared to targets and/or baseline data from NBT or industry to provide firm understanding of status.
7. The EMS Committee discusses priorities and revisions, reviews performance of environmental programs, Appendix A of the EMS Manual, identifies SEAs, and decides to endorse the next year's Annual Planning Table and action plans to NBT Senior Management.
8. At least 30 days before AFE budget submission deadline, the Annual Planning Table is submitted at the NBT Senior Management EMS Review Meeting. Upon approval, the action plan is incorporated into the next fiscal budget process and presented to the SHE&S Committee. Other agenda items at the EMS Management Review Meeting include, at a minimum, the following items:
    - Adequacy of resources
    - Regulator Log review
    - Suitability, adequacy, and effectiveness of the EMS to enhance environmental performance.
9. Targets will contain the following criteria:
    - Percentage reductions by a specified date.
    - Relative performance indicators (e.g., reduction in energy/GHG per volume conveyed).
    - Reducing the frequency of undesirable events (e.g., reduce complaints to one per year-by-year X).
    - Conducting a specific activity by a given date (e.g., complete carbon footprint and subsequent purchase plan by Year X).
10. Programs will include the following information:
    - Delegated responsibilities.
    - Status updates on achieving planned actions.
    - Proposed completion date.
11. The EMS Planning Table Template is provided in Appendix C. A Planning Table is created annually and is issued promptly after the SHE&S Committee Meeting. The Planning Table modifications are recorded in SharePoint | Environmental Team Site. EMS Committee Members, designates, and stakeholders receive email notification to inform them of the changes.
12. NBT Environmental Goals and Objectives are reviewed annually at the EMS Committee and EMS Management Meetings and tailored to align with the EMS Environmental Aspects Management Table (See Appendix A). For Roles and Responsibilities, refer to Table 3 – Key Environmental Management Staff.

NEPTUNE BULK TERMINALS (CANADA) LTD.

Committed to protecting the environment and minimizing the impact of its operations.

CITIZENS

"NBT is an environmentally conscious facility that strives to make our community a better place"

"NBT is a responsible terminal that keeps our planet's best interests in mind"

"NBT protects the environment by adhering to the highest standards of CCME"

NBT MANAGEMENT AND PERSONNEL

NBT employs the latest technology and best practices on site to minimize the impacts on the community.

NBT acts responsibly and provides transparancy in environmental management plans.

NBT listens to the community's needs and works with citizens to aleviate any concerns.

OBJECTIVES

- Minimize impacts to local waterways.
- Reduce energy consumption and carbon emissions.
- Comply with all applicable laws and regulations.
- Minimize releases of air contaminants.
- Reduce waste and improve recycling program.
- Safeguard the environment for future generations.

INTERNAL PROCESS

AIR	LAND	WATER	ENERGY
Prevent the release of coal dust	Prevent Surface Runoff to Storm Drain from Exceeding Regulations Waste Reduction & Management Plan	Prevent DBWTS Discharge Reduce Municipal Water Consumption	Energy/GHG Performance Reduction
Upgrade dust suppression to minimize fugitive dust and maximize opacity	Install sludge pump, piping and controls for automated sludge transfers	Update storm water management plan and retrofit all scrubbers	Follow strategic energy management plan and continue with energy audits

CULTURE AND CAPACITY

NBT promotes the growth and development of NBT Staff and leadership.

NBT values and show appreciation for all personnel and their efforts to maintin the highest standards of Environmental Protection.

NBT maintains a positive Environmental culture of respect, action and accountability.

Figure 7-1: Environmental Targets

FREQUENCY

EMS Environmental Objectives, Targets, and Programs are reviewed and set annually. The Programs are also reviewed for progress on an ongoing basis (e.g., at project conclusion and monthly AFE Review Meetings) or as the VPHSE or the EMS Committee deems necessary.

RECORDS

- Environmental Aspects Management Table.
- Standing Targets Table Template.
- Annual Planning Table Template.
- Program Plans.
- Project Files.
- Board SHE Committee Records.
- Capital Budget and AFE Summary.

8 ROLES AND RESPONSIBILITIES FOR ENVIRONMENTAL MANAGEMENT

PURPOSE

To define the roles and responsibilities for implementing the EMS. See Figure 3 in Section 10.0 - Communications for the NBT Environmental Organization Flow Chart.

PROCEDURE

1. While environmental management at NBT is the responsibility of all staff, the following individuals are all responsible for all aspects of the EMS and should be contacted for further information and/or direction when dealing with environmental aspects of NBT's business.
2. The VPHSE or their designate documents EMS roles in the following table:

Table 8-1: Key Environmental Management Staff

KEY ENVIRONMENTAL MANAGEMENT STAFF		
TITLE	**ROLE**	**RESPONSIBILITY AND AUTHORITY**
NBT EMS Committee	Identify and prioritize new significant environmental aspects; Formulate Capital Environmental Projects, Review NBT Environmental Policy	Guide and support the EMS activities to realize competitive advantage through continuous EMS improvement including: • Policy revisions. • Reviewing Environment Aspect Management Table and identifying new on-site environmental aspects. • Formulating and tracking implementation of environmental projects. • Ensuring operating procedures and engineered controls are effective. • Preparation for Senior Management Review. • Communicating and implementing EMS requirements in their work areas.

KEY ENVIRONMENTAL MANAGEMENT STAFF		
TITLE	**ROLE**	**RESPONSIBILITY AND AUTHORITY**
President	Supervision of VP Operations, VP Health, Safety and Environment, VP Asset Management, and Maintenance Manager. Provide overall direction for managing environmental issues. Coordinate and provide resources to fulfil environmental management requirements. Coordinate internal (staff and Board) and external (regulators, public, media) communication regarding environmental affairs. Review EMS Manual.	Reviewing EMS procedures, e.g., for improvements to environmental control and/or to address newly identified aspects and/or new regulatory requirements. Keeping NBT Board of Directors and Board SHE Committee informed of environmental matters. Delegating responsibility for environmental management. Maintaining appropriate levels of training for personnel involved in management of environmental aspect.
Vice President (VP) Operations	Direct supervision of Operations. NBT EMS Committee Member.	Developing and maintaining (updating) operations manuals and operations procedures for accidental spillage and emission mitigations. Verifying that operating procedures comply with all applicable environmental regulations (in conjunction with the VPHSE). Ensuring environmental aspects are considered in capital planning.
Vice President, Asset Management (VPAM)	Direct supervision of Project Managers. NBT EMS Committee Member.	Ensuring projects comply with all applicable environmental regulations (in conjunction with the VPHSE).

KEY ENVIRONMENTAL MANAGEMENT STAFF		
TITLE	**ROLE**	**RESPONSIBILITY AND AUTHORITY**
Vice President, Health, Safety and Environment (VPHSE)	Direct supervision of Safety and Environmental Managers. Develop continuous improvement plan. Manage key environmental aspects. Resource for all environmental issues. Ensure compliance of contractors and consultants to the NBT EMS. Identify and control distribution of key environmental documents of external origin. NBT EMS committee member.	Developing long term safety strategies aligned with EMS. Ensuring that safety and health aspects of the EMS are properly managed and are consistent with the HSMS. Responsible to update and maintain Emergency Response and Preparedness (ERP) Plan and HSMS. Overall responsible for the ERP and HSMS and reporting to the ELT on the performance of each. Maintaining operations in accordance with the EMS by guiding the VP Operations, Maintenance Manager, Operations Manager, Maintenance Superintendents, and Operations Superintendents on environmental aspects.
Environmental Manager	Direct supervision of the Environmental Programs at NBT. NBT EMS committee member. Main point of contact for all Environmental concerns / issues.	Implementing environmental controls and checking compliance with all environmental permits (including reporting of results), rules and regulations. Managing of and reporting on all environmental aspects. Responsible for supporting the VPHSE in all aspects of the EMS and reporting EMS performance to ELT.
Environmental Systems Specialist	Supporting role: Compliance and reporting knowledge. Reports to the Environmental Manager.	Monitoring the impact of NBT on the environment, identifying environmental issues, and recommending solutions.
Environmental Monitor	Supporting role: Observes and reports on Environmental conditions at NBT. Reports to the Environmental Systems Specialist.	Site inspections, documenting event details, developing technical documents.
Maintenance Manager	Direct supervision of maintenance department to ensure preventive maintenance and repairs are carried out on all pollution control works and related equipment. NBT EMS Committee Member.	Developing and maintaining (updating) maintenance manuals. Developing and maintaining maintenance procedures for pollution control works. Verifying that maintenance procedures comply with all applicable environmental regulations (in conjunction with the VPHSE).

KEY ENVIRONMENTAL MANAGEMENT STAFF		
TITLE	**ROLE**	**RESPONSIBILITY AND AUTHORITY**
Procurement Manager	Direct supervision of NBT's supply chain and purchasing processes.	Ordering supplies/services to support environmental controls. Obtaining and maintaining inventory of spill containment materials and equipment, and water treatment chemicals and test kits. Checking herbicide/insecticide applicators licences. Fuel inventory reconciliation and removal of recyclable materials. Implementing and enforce NBT Environmental Procurement Policy and Procedures ensuring a life-cycle perspective is considered in assessing environmental suitability of supplies and services.
Operations Manager	Direct supervision of operations department to ensure operations superintendents are aware of and observe established procedures and changes in operating procedures, policy, and the EMS. Ensure proper training of superintendents, supervisors, and operations personnel. NBT EMS Committee Member.	Overseeing site operations, including NBT and railway operations, to ensure compliance with the EMS and established management controls for the environmental aspects of the site operations. Initiating development of site operation procedures that are consistent with EMS management controls. Reviewing and approve training material. Overseeing emergency response.
Safety Manager	Coordinate site training. Support all personnel in handling safety aspects and emergency response.	Ensuring proper communication between NBT and Union representatives on SHE&S matters. Ensuring that safety and health aspects of the EMS are properly managed consistent with HSMS. Managing all training requirements.
Operations Superintendents	Supervise day-to-day material handling including activities of personnel involved in all ship loading, rail car unloading and dumping, transferring, and pollution control, including meeting all permit requirements.	Checking activities are carried out to meet all permit requirements. Includes all aspects of dust control, preventing overload of wastewater treatment systems, daily inspection of settling ponds, record keeping, ensuring material handling procedures are followed, clean up of accidental spills, etc.
Maintenance Superintendents	Supervise day-to-day maintenance activities.	Maintaining and checking equipment through the Preventative Maintenance (PM) system and other initiatives to enable operations to meet all production-related permit requirements. Maintenance of settling ponds.

KEY ENVIRONMENTAL MANAGEMENT STAFF		
TITLE	**ROLE**	**RESPONSIBILITY AND AUTHORITY**
Head Foremen	Supervise site activities, including activities of personnel involved in all ship loading, rail car unloading and dumping, transferring, and pollution control, including meeting all permit requirements.	Daily inspection of settling ponds, ensuring pollution control works are not bypassed, and if air pollution controls fail, making sure operations do not continue without Operations Superintendent permission and assurance permit terms will not be violated. Confirming operating procedures are being followed for dust control (operational scrubbers, adequate moisture, operating water sprays, loading rates, etc.), material spills, and effluent discharge.
Operations Foremen	Supervise operators, trades, and labourers so that established procedures are followed.	Ensuring pollution control works are not bypassed, and if a bypass is required, make sure operations do not continue without Operations Superintendent permission and assurance permit terms will not be violated. Confirm operating procedures are being followed for dust control (operational scrubbers, adequate moisture, operating water sprays, loading rates etc.), material spills, and effluent discharge.
Maintenance Foremen	Supervise trades, and labourers so that established procedures are followed.	Ensuring proper procedures are followed during equipment refuelling or receipt of fuel into storage. Ensure proper handling, storage and disposal of wastes which occur as a result of site maintenance.
Stores Foremen	Supervise stores personnel and coordinates storage of materials and supplies on site.	Ensuring proper procedures are followed during equipment refueling, greasing, or lubricating activities, handling, storage and disposal of chemicals and other hazardous material.

FREQUENCY

The roles and responsibility table will be revised when positions with EMS responsibilities or new positions are created. Otherwise, the table will be reviewed annually during the management review process.

RECORDS

- None.

9 TRAINING AND COMPETENCE

PURPOSE

To ensure persons working at NBT are made aware of the EMS requirements through training and orientation, are appropriately trained and competent to maintain optimal environmental performance, and are made aware of their contribution to the effectiveness of the EMS, including environmental performance and the implications of non-conformance.

PROCEDURE

1. All NBT employees that have functional responsibility for the EMS are required to attend training relevant to their position or activities. This includes any new employees within the following groups: senior executive, managers, and superintendents.
2. The scope of EMS-related training includes, but is not limited to:
    - EMS Manual and specific awareness to:
        - NBT Environmental Policy.
        - Significant Environmental Aspects, impacts and programs related to the site.
        - Environmental performance and non-conformance.
    - Emergency Preparedness and Response Plan (EPRP).
    - Transportation of Dangerous Goods.
3. Environmental training may not necessarily be integrated into any EPRP training, but can be incorporated if warranted, specifically for SEAs associated with spill response. Training sessions are coordinated by the Safety Coordinator with input from the ELT, including the VPHSE.
4. Both “in-house” and external experts provide environmental training.
5. Previous training, education and skills are reviewed to develop an appropriate custom training program.
6. Completed training is tracked in the Neptune Training Portal by NBT’s OHS Management Systems Analyst.
7. At the start of every shift, the operations and maintenance workforces hold toolbox meetings where Shift Supervisors can outline individual responsibility for the use of equipment, basic safety and SEA Response Procedures.
8. Before starting a project, the contractor submits an Environmental Management Plan and reviews and completes the Environmental Checklist.

FREQUENCY

The VPHSE (or their designate) is responsible to review the EPRP and EMS training and report progress updates to Senior Management and at each meeting of the SHE&S Committee.

RECORDS

- Training records are maintained by NBT’s OHS Management Systems Analyst.

10 COMMUNICATIONS

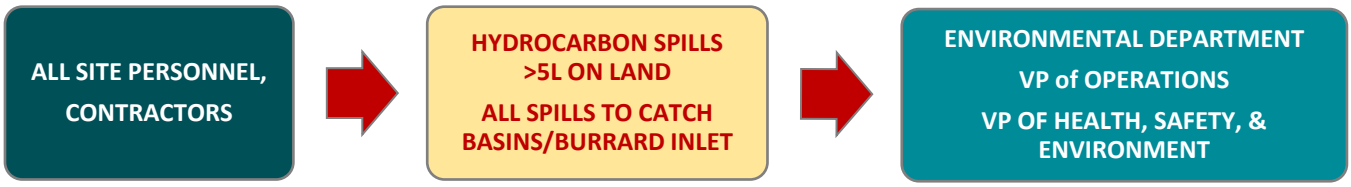
PURPOSE

Guidelines for internal and external communication of environmental information, particularly with the Board of Directors, regulators, and external stakeholders (e.g., general public).

PROCEDURE

Internal Reporting

1. All staff members are required to promptly notify their immediate supervisor of any potential issues that could result in environmental impacts (e.g., procedures that require modification or equipment that is malfunctioning or needs repair). For the purposes of this procedure, "Supervisor" denotes the next higher reporting level: Foreman, Superintendent, or Manager.
2. Operations and Maintenance are required to notify the Environmental Department, VP of Operations and VP of Health Safety and Environment on all hydrocarbon spills greater than 5 liters on land and any spills, regardless of the quantity, to any catch basins or directly to the Burrard Inlet. Refer to the detailed Spill Response Flow Chart and Instructions in Appendix I5.



3. Equipment failure: Any equipment malfunction is reported to the Supervisor and the Maintenance Planner, as soon as possible.
4. Procedural changes: In order to render it safer and/or less likely to create an environmental impact, a proposed procedural change should be communicated to the appropriate Supervisor, and the VPHSE, as soon as possible.
5. Notification of back-up: Change in responsibility – When a Supervisor/Manager/VP is temporarily unavailable, they appoint a fully-qualified, temporary replacement to manage environmental aspects or equipment that can contribute to them, and immediately communicates this change in responsibility to others who work in the area.
6. Incident/event reporting: Operational staff informs the VPHSE of environmental complaints, accidents, or non-compliance incidents as soon as possible. The VPHSE contacts relevant agencies about each incident of permit non-compliance or environmental emergency.
7. Routine Agency Liaison: The VPHSE is the primary contact with government agencies regarding permit and/or bylaw administration, including regularly scheduled reports. All communication is recorded in the Regulators Log. In absence of the VPHSE, the Environmental Manager or designate acts as the primary contact.
8. Routine internal performance reporting: The Environmental Manager and VPSHE monitor and measure compliance with EMS permits and submits a monthly Due Diligence Report to the ELT. Each report

highlights activities of continuous improvement and reports EMS permit compliance. Any new environmental complaints, incidents, and/or changes in any regulatory requirements, are also reported. The data in these reports (or a summary) is presented to the SHE&S Committee.

9. Daily communication and spontaneous reporting to senior management: Operations personnel communicate any new developments, incidents, and any early warning of growing or potential environmental concerns.
10. Communication processes from senior management to personnel: The VPHSE and other environmental staff regularly communicate environmental information by a variety of methods, such as in-person coaching, display screens, emails, notice boards, and toolbox talks.
11. Annual EMS Planning Report: Internal reports and information are incorporated into the Annual EMS Planning Report. NBT's environmental reporting structure is outlined in the following flowchart.

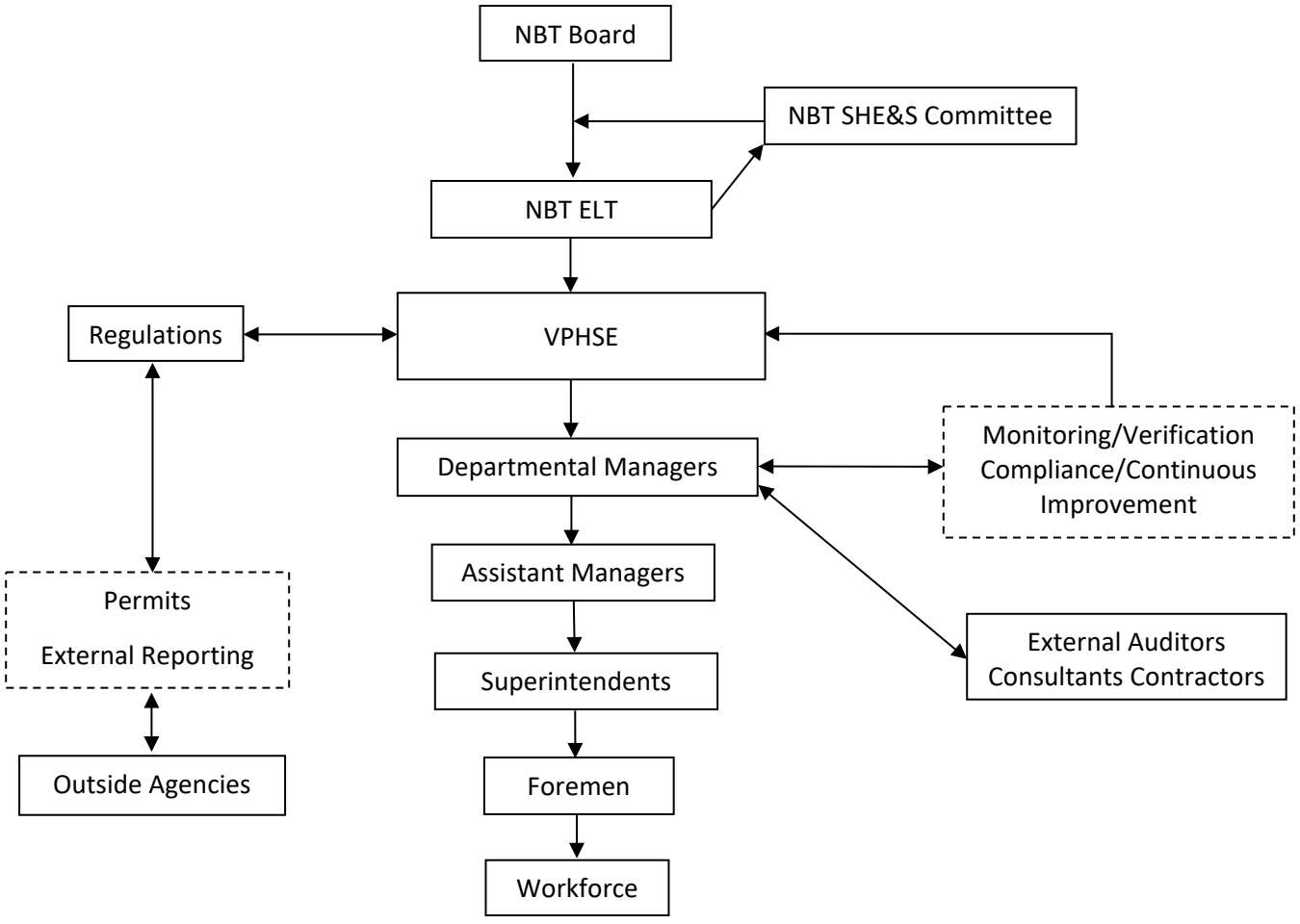


Figure 10-1: NBT Environmental Organization

External Documents

1. Legal and Other Requirements are provided to NBT and filed in SharePoint. Review/updates to Legal and Other Requirements are performed annually.

2. Documents of external origin that are necessary for the planning and operation of the EMS (most notably NBT's permits) are filed in SharePoint.

External Reporting and Public Complaints

1. Public complaints regarding environmental issues (e.g., dust, noise) and NBT's responses are handled by DOPC and/or Environmental Manager and coordinated with the VPHSE.
2. The Environmental Team determines if the cause of the complaint is attributable to NBT operation. If so, it is reportable to regulatory authorities as per the Legal and Monthly Reporting Framework.
3. All complaints and the actions taken to resolve them are recorded in the Complaint Log with the following information:
    - If the complaint is attributable to NBT.
    - Notice of violation as required.
    - Date of regulator visit as required.
    - Date of completion as required.
    - CAR/PAR number as required.
4. All verifiable community complaints regarding air emissions received by NBT shall be anonymized and submitted to Metro Vancouver once per quarter. This is in accordance with Permit GVA0081 and includes a summary of any follow-up actions taken or proposed.
5. Any media interfacing is managed by the President, or as directed by the President.
6. NBT does not report commercially sensitive environmental aspect information externally.

FREQUENCY

GVA0081 permit reporting frequency is quarterly. Other requirements for internal and external communication are reviewed on an as-needed basis (e.g., after an incident, revised organizational structure, etc.) and otherwise, at least once per year.

RECORDS

• Environmental Incident Log	SharePoint | Environmental Portal
• Corrective/Preventative Action Form (Car/Par)	SharePoint | Environmental Portal
• Regulators Log	SharePoint | Environmental Portal
• Complaint Log	SharePoint | Environmental Portal
• GVA0081 Self Monitoring Report Exceedance	Metro Vancouver Website REMIR
• GVA0081 Report Exceedance Tracking	ENVOLV

Table 10-1: Regulator Reporting Formwork

NBT - INTERNAL ENVIRONMENTAL REPORTING FRAMEWORK						
LEGAL/ INTERNAL REQUIREMENTS	**EVENTS/SCENARIOS**	**Report to Agency**	**Report to Management**	**Report to SHE Committee**	**Report to Board**	**COMMENTS/EXAMPLES**
Permits/ Regulations	Permit sample exceedances "reported at time of occurrence"	✓	✓	✓	✓	MV air permit; GVS&DD sanitary discharge permit; MOE permit (CWTS)
	Permit exceedances for continuous monitoring (daily flow, instantaneous flow, pH, AN)		✓			Defined as "not reportable" since permit only requires recording on quarterly submission, no immediate phone notification
	Additional non-mandated sample results exceeding Permit/regulation limits		✓			Due diligence/ exploratory testing (e.g., troubleshooting/systems testing)/stormwater
	Agency investigation/possible enforcement		✓	✓	✓	As a result of operating or reported non-compliance I spills (possible enforcement)
	Agency inspection		✓			Routine, planned as part of agency permit management trouble-shooting dialogue (e.g., CWTS)
	Environmental Systems Failure	✓	✓			CWTS (includes surface flooding to inlet); DWTS; coal pile pole spray system, failure scrubbers
	Emergency bypass and release (unplanned)/deleterious discharge	✓	✓	✓	✓	CWTS; DWTS; scrubbers to air and anything deleterious discharge to ocean
	Planned bypass	✓	✓			Agency approved
	Plant problem, malfunction, indicator alert		✓			Flow Turbidity (FT), ammonia, pH probes, flow rates
	Mandated training overdue		✓			TOG (tri-annual);
	Mandated report submission late or missed		✓			Air permit, MOE permit (CWTS); GVS&SS sanitary discharge permit (DWTS); NPRI
Reportable Spills/ Releases	Spills to inlet	✓	✓	✓	✓	Any volume of hydrocarbon (fuel, engine oil, lubricant); can occur during operations or maintenance; attributable to NBT operations/ maintenance (including contractors)
	Spills to environment exceeding Spill Reporting Regulation limits	✓	✓	✓	✓	Clean fuel and lubricants; waste oil, diesel, or gasoline> 100 L to environment (i.e., loss of containment); deleterious substances; check Spill Reporting Regulation (or Emergency Response Plan) for other substance thresholds
	Halocarbon Releases	✓	✓	✓	✓	In the event of a spill, both the Federal and the Provincial regulators must be notified.
Port Metro Vancouver Lease	Detected historical contamination		✓			During project excavation, also covers CSR requirements at same time for sampling/storing/disposing contaminated soil
	Quadrennial audit report		✓	✓	✓	Third party compliance audit: released to PMV
	Verified contamination caused by NBT in new lease period		✓	✓	✓	Period based on current PMV lease (7March2008)
	Annual Fugitive PM Estimation from Each Source		✓	✓		To be submitted in March of each year at the same time as GVRD
Internal NBT Standard - Operations	Attributable complaints		✓	✓		NBT validated complaints and follow-up action(s) taken (dust, noise, odor, light); may be reportable to PMV & Others as directed
	Non-attributable complaints		✓			Records kept on site for reference
	Internal non-mandated sample results exceeding NBT targets		✓			Continuous Ammonia and BOD on DWTS; hi-volume and particulate for ambient air quality; pH and Chlorine on CWTS
	Quarterly Environmental Audit report		✓	✓	✓	On file in EMS
	Environmental audit potential non-compliance		✓			Reported quarterly; reported immediately if significant issue identified (e.g., cost, regulatory action likely, operations interrupted, etc.)
Internal NBT Standard - EMS & Admin	Significant and relevant legal changes		✓	✓		Federal and Provincial Regulations, Metro Vancouver, City of North Vancouver, PMV Lease
	Tracking environmental performance, continuous improvement		✓	✓	✓	Set and monitor performance indicators from applicable sources (e.g., audit action item implementation); EMS targets and program status; 5-year sustainability plan;
	Pollution control works programs and funding over $10,000 in Capital		✓	✓	✓	Scope of reporting to cover cost and performance assessment of modified processes/installations

NBT - INTERNAL ENVIRONMENTAL REPORTING FRAMEWORK						
LEGAL REQUIREMENTS	**REPORTABLE CONDITIONS AND ACTION**	**Report to MOE**	**Report to Metro Van**	**Report to Env Canada**	**Report to PEP**	**COMMENTS/DETAILS/REFERENCES**
MOE Permit (PE-06898) CWTS Discharges	Non-compliant discharges, notify Regional Waste Manager within one week of receiving non-compliant data (s3.3; s1.0)	✓				Permit copy at PE-06898. Permit summary in EMS (Environmental Portal | Regulatory | Permits)
	Pollution control works malfunction, notify Regional Waste Manager (s2.1)	✓				Malfunction duration in excess of 24 hours and exceeding applicable permit limits
	Planned bypasses, obtain permission from Regional Waste Manager (s2.2)	✓				
	Emergency release that prevents compliance with limits, notify Regional Waste Manager (s2.3)	✓				
	Process modifications that may adversely affect discharge quality, notify Regional Waste Manager	✓				
	Change in ownership, notify Regional Waste Manager (s2.5)					Covered by corporate or legal
	Maintain monitoring data (flow, TSS and bioassay) "suitably tabulated"					Keep available for possible inspection at any time: records and report location links.
GVS&DD Permit and Amendment (SC-100002-NSSA) DWTS Discharges	New or modified works must be authorized (s.2b)		✓			
	New waste sources must be authorized (s.2b)		✓			Includes intermittent sources such as construction (excavation) groundwater
	Notify Metro Vancouver immediately for spills that may enter the sanitary sewer system (3a, d); conditions that will exceed permit limits (s.3b); failure to conduct authorized procedures that may cause a permit exceedance (3c)		✓			Spills of prohibited substances/materials or above permit limits (including excavation groundwater volumes that may exceed flow restrictions).
	Planned works bypass, obtain authorization first (s.4a)		✓			
	Changes in monitoring method or location requires authorization (s.5b)		✓			
	Submission of quarterly discharge and sampling reports		✓			Quarterly submission of calendar quarter
Metro Vancouver (GVRD) Air Permit (GV A0081) 1999 & Amendments	Reasonable notice to Metro Vancouver of any changes to or replacement of authorized works, procedures, or emission sources (other than changes required for routine maintenance) (s.2a)		✓			
	Notify Metro Vancouver immediately of any emission monitoring results (whether from continuous emissions monitoring or periodic testing) which exceed the quantity or quality authorized in Section 1.		✓			
	Emergencies or conditions interfering with works that may result in unauthorized discharge, **report at first available opportunity** – Schedule B (C)		✓			Power outage; mechanical failures; physical damage
	Bypasses must be authorized by Metro Vancouver in advance (s 2D); bypass exempted for emergencies until affected equipment shut-down, then report as above - Schedule B (C)		✓			
	Submit monthly, quarterly, annual reports		✓			See permit summary and air permit (EMS) for detailed reporting requirements. Also submit annual reports to VFPA as a condition of NBT's Lease Agreement.
	Modified sampling or analysis must be authorized – section 3		✓			
	Provide a minimum five working days advance notice to the Air Quality Department (or Metro Vancouver officer) before air sampling – Section 3		✓			

NBT - INTERNAL ENVIRONMENTAL REPORTING FRAMEWORK						
LEGAL REQUIREMENTS	**REPORTABLE CONDITIONS AND ACTION**	**Report to MOE**	**Report to Metro Van**	**Report to Env Canada**	**Report to PEP**	**COMMENTS/DETAILS/REFERENCES**
All permits	Resampling after suspected non-compliance	✓	✓			After procedural or process adjustments and subsequent resampling, submit analytical results in follow-up reports to the applicable agency.
Authorization: Dredging & Ocean Disposal	Obtain dredging authorization and submit sampling results for ocean disposal			✓		Coordinated through Port Metro Vancouver.
Regulation or Act: Spills	Spills to land exceeding SRR limits; any volume of deleterious substance to Inlet				✓	Clean fuel and lubricants; waste oil, diesel, or gasoline > 100 L to environment (i.e., loss of containment); deleterious substance to inlet; check Spill Reporting Regulation for other substance thresholds.
Regulations: Air Releases	Report Propane and Natural gas releases > 10 kg				✓	From broken pipeline (Spill Reporting Reg #25).
Regulations: Hazardous Waste	Material change in the information provided to MOE during registration (if required), including hazardous waste volumes stored on-site	✓				Notify MOE if volumes of registered hazardous waste stored on-site increase beyond the quantity set out in Schedule 6 to the Hazardous Waste Regulation (e.g., waste oil).
Regulations: Contaminated Sites	Elevated soil and monitoring well sample results above criteria					Consult Legal Counsel.

11 DOCUMENT CONTROL AND RECORDS MANAGEMENT

PURPOSE

Guidance on keeping EMS documentation up-to-date and maintaining environmental records.

PROCEDURE

Maintaining a Documentation System to ensure environmental records and all relative information are sustained in compliance with the EMS. Documents that are critical to proper management of significant environmental aspects (e.g., Supervisor's Operating Manuals) are maintained by Operations personnel of the associated activity or operation.

7. Electronic Filing System: Master EMS documents and records are stored electronically in SharePoint, a cloud-based filing system. This includes this EMS Manual, its appendices, and all supporting documentation. All other electronic copies are considered uncontrolled and are for reference only. The latest revision of each key document is posted electronically. All staff are responsible for using only the latest revision of EMS documents.
8. Hard Copies of Environmental Information: For areas on site where electronic access is not practical, a hard copy or summary of key information is made available and/or posted. All hard copies are uncontrolled and are for reference only.
9. Master Versions: The master versions (native files) are to include *"The master version of this document is saved in [location]. All electronic and printed copies of this document are uncontrolled until compared against the master version."* in the header. This is to indicate that any copies, electronic or printed, are considered uncontrolled. It is the responsibility of all staff to ensure they are using the latest version.
10. Superseded Documents: Out-of-date information and superseded versions of EMS documents are either discarded or marked as obsolete. In the instance where documents stored on SharePoint are updated, the newer document is versioned over top of the previous issue and the metadata is updated to reflect the latest revision.
11. EMS Manual Updates and Access: The VPHSE maintains the EMS Manual and reviews/revises the master document at least once annually. Minor changes are made throughout the year as needed (e.g., inclusion of audit results that dictate modifications to demonstrate continued improvement), and an official revision will be issued in Q1 of each year. Appendix G contains the distribution list of the EMS Manual and Appendix H contains the revision log.
12. EMS Affiliated Documents: Supporting documentation is filed on SharePoint. These documents include a revision number in the footers. Periodic revisions will incorporate changes/updates to Environmental Aspects and associated EMS Standing Targets:
    - Operating Manuals.
    - Emergency Preparedness and Response Plan.
    - EMS related or co-dependent forms.
13. Important Changes including Changes Requiring Approval: A designated Environmental Team, Executives and their Support Personnel have unrestricted access to the EMS working document in SharePoint. All other staff have read-only access to the EMS Manual. When important changes are made to the EMS

controlled/affiliated documents, the VPHSE writes the change(s) to a "Pending" next revision. Changes are presented to the EMS Committee, and/or to the Annual ELT Meeting. SEAs Management Table, Annual Planning Table, and Multi-Year Standing Targets are presented for approval to the SHE&S Committee in Q4. Approved and other accepted revisions are authorized at end-of-year, or as required, when the VPHSE reviews the EMS Manual and removes the "Pending" status, rendering that revision of the document the "latest revision".

14. Environmental Records: Records include all immutable information. Mandatory reports and optional items such as personal diaries, records of conversations, and program/project files related to environmental aspect management are maintained, particularly those used to back-up or track incidents and to support decision making. Environmental records are attached to event logs, corrective/preventative action reports and/or stored within SharePoint for 5 years.

Table 11-1: Historical Filing Category

SECTION	TITLE	PERMIT No. (If Applicable)
1	Policy	
2	Site	
3	Air Permit	GVA0081
4	Storm Permit	PE-06898
5	Sanitary Permit	SC-100002-NSSA
6	Noise	
7	Product Specifications	

15. EMS Manual Document Number: NBT document number MAN-NBT-121116_09-900-6-026 is assigned to this manual. The revision number is noted on the cover sheet, in the footer, and in the metadata. The pending next revision of the "live document" is filed in SharePoint. In Q1, VPHSE usually approves the pending revision from the previous year, and a new pending version is started.

Table 11-2: Key Documents for Environmental Management

KEY DOCUMENTS FOR ENVIRONMENTAL MANAGEMENT	
LOCATION	**ELEMENTS**
ENVOLV Data Management System	• Sampling Data • Site Environmental Map • Summary Reports, e.g., Monthly Performance and Executive Due Diligence • Links to Key Documents
Enterprise Resource Planning System (JD Edwards)	• Site Inventory • Purchasing/Work Order System • Preventative Maintenance Plan
SharePoint	• Board Reporting • SHE&S Committee Reports, Minutes, Task List and Presentations • EMS Work Plan • Records, e.g., Monitoring Data, Temporary Permits, Complaints, Reporting to Regulators, Tactical Plans

FREQUENCY

Document and records management is reviewed on an ongoing basis, at minimum annually, to ensure that personnel are utilizing the most current EMS and related instructions, and to ensure efficiency of record storage and retrieval.

The Environmental Team assists the VPHSE with the electronic storage and location of the EMS documents and advises major users (see above Roles and Responsibilities) of changes relating to refining or location of documents and records.

RECORDS

- See SharePoint | Environmental Portal

12 OPERATIONAL CONTROLS AND PROCEDURES

PURPOSE

To provide framework for establishing operational controls and standard procedures that prevent pollution and minimize the impacts on the environment and community from NBT activities.

PROCEDURE

1. Programs are established and reviewed as required for significant environmental aspects. Written procedures may also be issued for environmental aspects not deemed significant, if practical.
2. All staff are required to follow established procedures, particularly when any deviation from the procedures could result in a significant environmental impact. The VP of Operations has direct immediate responsibility for how operations are conducted; the President has overriding responsibility.
3. Standard Operating Procedures (SOPs) are generated and regularly reviewed for:
    - Implementation of new or modified operations.
    - Projects that create environmental aspects (e.g., soil excavation/disposal, groundwater treatment and disposal, etc.).
    - Introduction of new chemicals or materials with hazardous properties.
    - To prevent a recurrence of an incident/event.
    - Implementation of a best practice.
4. Operational controls and/or SOPs that may be included or referenced in Environmental Management Programs.
5. Key operational procedures relating to NBT Environmental Aspects are located in Table 12-1: Environmental Aspects, Critical Documents, and Related Controls.

CRITICAL DOCUMENTS

Procedure manuals are updated when required and should be reviewed at minimum annually to ensure they provide the absolute best, up-to-date practices. Reviews are performed by members of the EMS Committee and Operations Supervisors, and other NBT personnel can be invited to provide input as required. The latest hardcopy versions are available at all major control points, such as the administration offices, operations building, and major site offices.

Critical Documents and Critical Instruments are central to the operation of the terminal and directly related to the control of significant aspects.

Table 12-1: Environmental Aspects, Critical Documents, and Related Controls

SIGNIFICANT ENVIRONMENTAL ASPECT (SEAS)	RELATED OPERATIONAL CONTROLS/STANDARD OPERATING PROCEDURE/PRACTICES (SOP)
A1 – Prevent release of coal dust from stockpiles beyond site boundary	• Operations Foreman's Manual Section 3 - The Coal System Technical Manual ○ Dust Suppression – Section 3.1.3.12, pg. 277
A12 – Dust from coal cars	• Control Narrative Empty Railcar Treatment – Treatment SPEC-DUBOIS-200409 • Controls: RSView-controlled spraying chemical binder on empty rail cars
W7 – Prevent non-compliant CWTS discharges to Burrard Inlet (process bypass)	• CWTS Operations and Maintenance Manual – 01-109-6-001-00 • Supervisor's Operating Manual – PRO-COAL-180623
A5 – Prevent release of dry bulk dust from ship loading and unloading beyond property boundary	• Supervisor's Operating Manual – PRO-POTASH-181031 • Controls - Drybulk shiploading manual/instructions (including operation of scrubbers; cascade chute; command to cease loading in high winds)
W8 – Prevent non-compliant DBWTS discharges to Metro Vancouver sanitary system	• DBWTS Operations and Maintenance Manual – 02-239-6-003-03 • Supervisor's Operating Manual – PRO-COAL-180623
R3 – Release from shiploader to inlet	• Supervisor's Operating Manual – PRO-COAL-180623 ○ Spray System Procedure – Section 3.3, pg. 36

W2 – Prevent surface run-off discharging to catch basins exceeding regulatory guidelines	• Storm Water Shut off Valves Procedure – PRO-NBT-171221_02-239-6-003
	• Controls:
	  ○ PM cleaning of valved interceptors at property boundaries
	  ○ ERP Identification and instructions for operating isolation valves.

W3 – Prevent bulk fuel dispensing and storage spills reaching Burrard Inlet	• Fuel Dispensing Procedure – 09-919-6-001
	• Spill Report Form – 09-900-6-026, pg. 110
	• Controls:
	  ○ PM cleaning of valved interceptors at property boundaries
	  ○ ERP identification and instructions for operating isolation valves.

Other Critical Documents	• Purchasing Policy/Contract Terms and Agreement – P01 • Hazardous Waste Disposal Procedure – PRO-NBT-150529_09-900-6-026 • CEMP – PLAN-NBT-191007 • Emergency Preparedness and Response Plan – 09-900-6-025 • Stormwater Pollution Prevention Plan – PLAN-NBT-220401

FREQUENCY

Each manager (or their designate) is responsible to review departmental operational controls and standard operating procedures as needed, as well as annually as part of the management review. This includes the Coal and Potash System Supervisor Manuals.

RECORDS

- Archived operating procedures/manuals.

13 EMERGENCY PREPAREDNESS AND RESPONSE

PURPOSE

To summarize documentation, supplies, training, and testing associated with environmental emergencies, as covered by NBT's Emergency Preparedness and Response Plan (ERP).

PROCEDURE

1. Documentation - The ERP Manual covers:

    - Emergencies at all business unit operations and related maintenance.
    - Potential scenarios, including fire and spills.
    - Natural disaster.
    - Coordination for off-site events that affect the NBT site.

    Emergency Plans are maintained by the Safety Manager, with input provided by the VPHSE as needed, and are accessible electronically on SharePoint. Personnel and management will follow all instructions including reporting channels.

2. Identification of Potential Emergency Situations

    The ERP Manual describes what to do in an emergency, including specific procedures for distinct equipment and operations. The latest copy of the Emergency Contact List can be found in Appendix I of this EMS Manual.

3. Spill Prevention and Response Supplies

    Operations foremen are responsible to ensure that spill response equipment and supplies remain sufficiently stocked, accessible and in good condition. The location and supply lists are documented in Appendix I of this EMS Manual.

4. Training and Plan Testing

    Employees are trained in emergency response procedures relevant to their area of work. This includes spills to ground (fuel or chemical) and fire. On a scheduled basis (e.g., annually), selected elements of the ERP are tested. Outcomes of plan testing/simulations are reviewed, and documentation (ERP) is updated. Personnel will subsequently be informed of material changes to the plan.

FREQUENCY

The ERP is reviewed on a timely basis (e.g., after incidents or simulations) and annually, as part of the management review process. Any required updates will be made annually.

RECORDS

- Events/Incident records.
- Emergency Preparedness and Response Plan on SharePoint.

14 MONITORING AND VERIFICATION

PURPOSE

To monitor emissions and discharges and evaluate effectiveness of controls to prevent/minimize environmental impacts.

PROCEDURE

Guidelines for inspector visits can be found in Appendix E. Additional guidelines for management controls and monitoring can be found in Appendix F.

5. Routine Monitoring of Emissions and Discharges
    - An environmental consultant generates an annual monitoring schedule for sampling air and effluent. The scope covers relevant sampling requirements in the Metro Vancouver and MOE permits. For due diligence purposes, sample data is also compared to restrictions listed in Federal, Provincial, Municipal laws, policies and bylaws.
    - The plan is approved by the VPHSE and a qualified environmental consultant (independent of the consultant that generates the schedule) is engaged to perform the sampling.
    - Quality control samples are collected during all sampling programs.
    - Additional sampling is to be performed at the CWTS and DBTS if a sample or duplicate result are:
        - Within 20% of the permit limit for that parameter.
        - Are >20% different from each other.
    - Consultants collecting and analyzing samples are to utilize currently acceptable procedures.

REGULAR WEEKLY DRY BULK SAMPLING:

1. A full set of duplicate samples is to be:
    - Collected weekly for the sampling events during the first quarter
    - Collected once per quarter under mixed weather conditions for the rest of the year.
2. Duplicate results are to be assessed and will either:
    - Confirm that results are “highly stable and homogeneous”, which will discontinue the collection of duplicate samples; or
    - Indicate that further evaluation the QA/QC is required.
3. Use of trip or field blanks is not recommended as permit limits are high relative to most guidelines.

COAL WATER SAMPLING:

1. A full set of duplicate TSS samples are to be:
    - Collected for the sampling events during the first quarter.
    - Once per quarter under mixed weather conditions for the rest of the year.
        - Duplicate samples are to be analyzed at both labs.
    - The FT meter data and/or historic sampling data where duplicate sampling was completed could be used to demonstrate that results are “highly stable and homogeneous”.

- Duplicate results and/or FT meter data and/or historic sampling data are to be assessed and will either:
    - Confirm that the results are "highly stable and homogeneous", which will discontinue the collection of duplicate samples; or
    - Indicate that further evaluation the QA/QC is required.
- If duplicate samples are considered "highly stable and homogeneous" and relatively consistent with the FT meter readings, the FT meter readings are to be used as NBT's QC measure.
- Use of trip or field blanks is not recommended because the permit limits are relatively high compared to other guidelines and regulations.
- No LT50 duplicate or blank. That analysis uses 10 fish in both the sample water and in a control sample, which minimizes variability and contamination is unlikely to impact results.

GROUNDWATER

- 10-30% quality control samples are to be taken during the annual occurrence of sampling.
- Monitoring data is entered into the ENVOLV monitoring module.
- Groundwater and stormwater sampling quality control results will be evaluated in the report and recommendations to proceed will be provided based on the findings.

1. Non-Routine Monitoring (Projects)
    - Sampling is performed by a qualified environmental consultant for projects that are expected to generate air emissions, liquid discharges, and/or potentially contaminated soil or sludge.
    - The VPHSE reviews relevant permit and/or regulatory requirements and devises a sampling strategy to ensure all applicable requirements are addressed.
2. Non-Routine Monitoring (Non-Compliance, Spills or Complaints)
    - Sampling will be performed immediately when:
        - Permit/regulatory non-compliance or spills are discovered; or
        - Legitimate and verified, off-site dust or noise complaints are received.
    - This sampling will be performed by either the VPHSE or the approved environmental consultant.
    - Sampling is to occur concurrently during regulatory audit sampling.
3. Preventive Maintenance of Environmental Controls
    - All NBT inventory, maintenance activity, and assets are managed through the JD Edwards Enterprise Resource Planning system. The system also holds a listing of environmental system assets and the associated preventative maintenance procedures and records.
    - The Assistant Manager, Reliability Engineer, and Superintendents instruct the Maintenance Schedulers to schedule preventive maintenance and inspections on the following key assets/equipment:
        - Dry bulk transfer systems (scrubbers and ship loading cascade chutes)
        - Dry bulk effluent treatment system (foreshore and treatment ponds operations).
        - Spill response equipment.
        - Air quality monitoring equipment.
        - Oil Water Separators.
        - HVAC equipment.

- Coal storage and transfer systems (pole mounted spray system, yard spray system, dumper scrubbers, and shiploading trimmers).
- Coal water treatment systems.
- Oil/water separators.
- Used oil and materials confinement vessels.
- Rail track oiling system (noise control).
- Other critical pieces of equipment.

- Maintenance and inspection activities are conducted by internal personnel or outsourced to qualified contractors.
- The maintenance schedulers track preventative maintenance scheduling from initial work order issue to completion of all requisite activities.

4. Calibration of Environmental Monitoring Equipment

- A list of critical environmental instruments (devices from which regulatory and/or due diligence information is derived) is maintained.
- The critical instrument list (see below) documents equipment type, location, inspection frequency, indication of internal (NBT) or external (firm name) of calibration service and whether device is for permit or due diligence.

Table 14-1: Critical Instruments

EQUIPMENT TYPE	LOCATION	INSPECTION FREQUENCY	CALIBRATION FREQUENCY**	SERVICED BY	REASON
CWTS pH Meter	Partial Flume (CWTS)	Weekly	Weekly	Carbonet	Due Diligence
CWTS Discharge Turbidity Meter A	Partial Flume (CWTS)	Weekly	Monthly	Carbonet	Permit (MoE)
CWTS Discharge Turbidity Meter B	Partial Flume (CWTS)	Weekly	Monthly	Carbonet	Permit (MoE)
CWTS Flow meter	Partial Flume (CWTS)	Weekly	Annually	Carbonet	Permit (MoE)
Chlorine Monitor	Partial Flume (CWTS)	Weekly	Weekly	Carbonet	Due Diligence
DBWTS pH Meter	DBWTS Sample Shack	Weekly	Weekly	Carbonet	Permit (GVSDD)
DBWTS Flow Meter	Partial Flume (DBWTS)	Weekly	Annually	Carbonet	Permit (GVSDD)
Ammonia Probe	DBWTS Sample Shack	Weekly	Weekly	Carbonet	Permit (GVSDD)
Noise Sentinel	Sub-Station Roof-deck	A/R	A/R	B&K	Due Diligence

*Inspection includes calibration check, not recalibration
**Calibrate: change span or zero

5. Reporting

    - The monitoring results are maintained and summarized in monthly reporting to senior management and to the Board of Directors.

FREQUENCY

This procedure is updated as new regulatory requirements are identified and/or as new equipment is added to site works.

RECORDS

- Laboratory analytical reports (hard copy).
- Monitoring data – ENVOLV (electronic).
- Critical equipment list.
- NBT Sampling Program Summary.

15 COMPLIANCE AND EMS AUDITING

PURPOSE

To conduct routine, scheduled, environmental compliance and EMS audits.

PROCEDURE

1. Audit Team

    - Environmental Compliance and EMS auditing is completed by independent and trained/certified environmental auditors with appropriate experience, reporting directly to the VPHSE.

2. Audit Program Scope and Schedule

    - Audits are conducted on a semi-annual basis, reviewing main protocol or aspect areas. For example:
        - Air emissions.
        - Liquid effluent.
        - Maintenance and waste management.
        - Chemical and fuel management.
        - Conservation.
        - EMS.
        - Community issues.
    - Environmental performance will be monitored, measured, analyzed, and evaluated against the following criteria:
        - Compliance audit to CSA-773-17.
        - EMS Audits to 14001:2015.
    - The regulatory compliance is evaluated as part of the routine audit program(s).
    - The EMS is reviewed for effectiveness and implementation, including but not limited to:
        - Validity of EMS documentation.
        - Tracking legal and other requirements.
        - Implementation of environmental plans.
        - Review of selected standard operating procedures and training.
        - Management of corrective action items.
        - Record and document management.
        - Management of significant environmental aspects.
    - Reports contain an executive summary and priority ranked corrective action items. Scores reflect the rank of audit action items only, not the entire management system.
    - Priority ranks are scaled 1 to 10 (1 = extremely high aspect, 10 = little or no aspect).
    - Audit findings are categorized as follows:
        - Compliance.
        - Due Diligence.
        - Opportunities for Improvement.

- Action items are listed in the Monthly Due Diligence Reports, including status, planned action, responsibility and due dates.

3. Quadrennial Audit

- Performed in compliance with the Vancouver Fraser Port Authority lease agreement.
- Conducted every four years by a qualified environmental auditor who is independent of the annual audit process and free of bias or influence from NBT and the routine annual auditors.
- An integrated environmental compliance and EMS audit. The regulatory component covers relevant regulations, permits and bylaws, while the EMS component evaluates the NBT EMS against ISO 14001:2015, the International Standard for an environmental management system.
- All reporting and scheduling is managed by the VPHSE.
- Audit action items are entered into ENVOLV to completion.
- Audit reports are distributed to the Board.
- Quadrennial audit reports are also reported to Vancouver Fraser Port Authority.

4. PESTEL Analysis

- An examination of the internal and external issues that may affect NBT's ability to meet environmental commitments.
- Carried out annually by the EMS Committee.

FREQUENCY

This procedure is reviewed when the audit process is modified.

RECORDS

- Audit reports (hard copy) in the VPHSE's office.
- Electronic audit reports on SharePoint | Environmental Portal.
- Semi-annual and quadrennial action plans in ENVOLV.

16 TRACKING ACTION ITEMS

PURPOSE

To effectively identify and track Environmental Action Items to completion.

PROCEDURE

1. Action items can arise from the following:
    - Audits.
    - Inspections (internal and external).
    - Internal observations.
    - Action items, specifically non-conformity issues.
    - Events/Incidents.
    - Off-Site Community Complaints.
    - Permit exceedances.
2. Action items are recorded and tracked to completion in SharePoint | Environmental Portal. Deadlines for completion and/or documentation, where deadlines are deferred, or actions cancelled, is determined by the EMS Committee.
3. All action items are evaluated for steps required to eliminate issues by:
    - Reviewing nonconformities.
    - Determining the root cause(s).
    - Determining if similar nonconformities exist or could potentially occur.
    - Reviewing effectiveness of any corrective action taken.
    - Tracking all actions in SharePoint | Environmental Portal.

    The EMS Committee is to be involved and additional discussion to occur during a regular Team Meeting. A third party consultant may be requested to sign-off on final corrective action.
4. ENVOLV and the Due Diligence Monthly Report (DDR) record the closing of Audit Action Items. NBT can:
    - Close an Action Item if they don't agree with the finding.
    - Hand it off to Maintenance without closing. The "handed-off" item remains OPEN until the issues are fully addressed.
5. Action items are to be closed in ENVOLV and noted as closed in the Environmental Due Diligence Report.
    - The DRAFT DDR is prepared at the beginning of the next month and forwarded to the VPHSE and Environmental Manager for approval.
    - The APPROVED DDR is posted in SharePoint | Environmental Portal, with the link emailed to the President's Executive Assistant; cc: VP of Health, Safety and Environment. The DDR is then distributed, by President's Executive Assistant, to SHE&S Committee members.
6. Pertinent information is provided to the Operations, Maintenance, and other Managers, as required. Major issues and/or initiatives are assigned appropriate resources.

FREQUENCY

This procedure is used on every environmental action item and regulator-reported permit exceedance.

RECORDS

• Environmental Incident Log	SharePoint | Environmental
• Corrective/Preventative Action Form (Car/Par)	SharePoint | Environmental
• Complaint Log	SharePoint | Environmental
• Permit Exceedance Tracking	Envolv

17 MANAGEMENT REVIEW

PURPOSE

Guidance for continuous improvement of NBT's EMS.

PROCEDURE

Management reviews occur daily, monthly, and annually to ensure timely performance assessment and subsequent implementation of improvements.

1. Daily Reviews

    - Operations meetings may include evaluation of environmental compliance status if anything outside of the normal occurs. This includes, but is not limited to:

        - Discharge quality on the CWTS and DBWTS
        - Operation of control equipment (e.g., scrubbers)
        - Problem solving for potential or known compliance deviations
        - Meeting minutes are not typically taken during daily operation meetings

2. Integrated Monthly Review

Monitoring and measuring of environmental performance is outlined in the monthly Environmental Due Diligence Report (DDR). This report highlights activities of continuous improvement, permit compliance and any new areas of concern, and is presented to Senior Executives monthly.

3. Annual Review Agenda Items

Senior management reviews the overall EMS performance (EMS Management Review Meetings) annually, typically before the Board of Directors meeting. The review scope covers the following:

- Content and communication of the environmental policy, ensuring the policy and objectives are consistent with the overall company strategic direction.
- New legal and other requirements.
- Needs and expectations of interested parties.
- Status of new and existing objectives, targets, and programs.
- Internal or external issues that relate to the EMS.
- Status of any actions arising from the previous management review.
- Environmental Aspects.
- Complaints and inquiries.
- Regulators Log.
- Resource requirements.
- Non-conformities and corrective actions.
- Internal and external issues.
- Adequacy of resources.
- Effectiveness of operational controls and training plans.
- Assessment of regulatory compliance.
- Any newly identified high level risks which may pose threats or opportunities that may need action from NBT.

- Monitoring and measurement.

4. NBT EMS closely follows ISO 14001:2015 requirements but has not adopted the standard in its entirety. EMS annual management review may include the following additional inputs:
    - Results of internal audits.
    - Status of corrective and preventive actions.
    - Follow-up actions from previous management reviews.
    - Recommendations for improvement.
5. The Annual performance reviews are documented, including delegated actions to continuously improve elements of the EMS, improve the integration of EMS with other business processes, and identify implications for the strategic direction of the company.
6. NBT management obtains feedback annually from Board and Legal Counsel for the appropriateness of the EMS and follow-up on recommended actions.

FREQUENCY

This procedure is in continuous use and revised as needed.

RECORDS

- Monthly Environmental Due Diligence Reports
- Annual EMS Review meeting minutes and supporting documents

APPENDICES

APPENDIX A: ENVIRONMENTAL ASPECTS MANAGEMENT TABLE

Legend for Aspect Numbers:	A	Air	M	Marine	R	Residuals	W	Water	Coal
	C	Conservation	N	Nuisance/Community	S	Site Contamination			Dry Bulk & Inbound

	DESCRIPTIONS		Location or Activities	Applicable Regulatory Requirement(s)	Likelihood Pre-Controls	Consequence Pre-Controls	Principle Operational Controls in Place	Links		Likelihood Post-Controls	Consequence Post-Controls	Residual Risk
Aspect #	Environmental Impact	Aspect						Standard Operation Practices	Objective, Targets & Programs			
A1	Air Pollution	Release of airborne coal dust from stockpiles to beyond property boundary	Coal Stockpile	Air permit; Canadian Ambient air quality guidelines	Almost Certain	Major	Automated water spray system, water cannons	Stockpile, control procedure, spray system	Reference multi-year standing targets	Likely	Moderate	Significant Risk
A2	Air Pollution	Release of coal dust beyond property boundary from coal rail dumping	Coal Dumper	Air permit; Can. Ambient air quality guidelines	Almost Certain	Major	Enclosed dumper building with scrubber, rail car rinse, scrubber PM	Coal Supervisor's Operating Manual	Review scrubber PMs	Unlikely	Moderate	Low Risk
A3	Air Pollution	Release of coal dust from ship loading beyond property boundary (Burrard Inlet)	Coal Ship Loading Conveyor and Chute	Air permit; Can. Ambient air quality guidelines	Almost Certain	Major	Scraper PM review. Dust Suppressant and other Operational controls	Scraper maintenance Semi-automatic spray application of water.	Reference multi-year standing targets	Almost Certain	Minor	Significant Risk
A12	Air Pollution	Prevent fugitive dust from coal cars off NBT property	Downstream of Coal Dumper	-	Almost Certain	Major	Chemical binder sprayed on empty coal cars	EMS Appendix I7	Reduce risk of dust escape from empty vehicles	Unlikely	Moderate	Low Risk
W7	Water Pollution	Coal water discharges not meeting regulated limits	CWTS Operation	MOE Effluent Permit; Fisheries Act	Likely	Major	Settling/treatment agents. Maint. trained personnel, electronic and manual monitoring and viewing	CWTS Operating Manual	Reference multi-year standing targets	Possible	Moderate	Moderate Risk
A5	Air Pollution	Release of drybulk dust from ship loading and unloading beyond property boundary	Drybulk Ship Loading/Unloading	Air permit; Can. Ambient air quality guidelines	Almost Certain	Major	Scrubbers, dry air filtration system	Supervisor's Operating Manual DB3 – shiploading	Reference multi-year standing targets	Possible	Minor	Low Risk
A6	Air Pollution	Release of drybulk dust from conveyor transfers and railcar dumping to beyond property boundary	Drybulk Dumper	Air permit; Can. Ambient air quality guidelines	Almost Certain	Major	Enclosed and aspirated conveyer transfers and dumper building		Reference multi-year standing targets	Unlikely	Minor	Low Risk
W8	Water Pollution	Drybulk water discharges exceeding sanitary system discharge limits	DBWTS Operation	Sanitary Permit SC-1000002-NSSA	Almost Certain	Major	Collection and settling ponds	–	Prevent and minimize drybulk exceedances	Likely	Moderate	Significant Risk
W10	Water Pollution	Coal pile runoff infiltrating DBWTS, either from operations or due to the significant increase in construction activity	Coal Stockpile to DBWTS	Sanitary Permit SC-1000002-NSSA	Likely	Major	Hermetic seal	Maintain impervious boundary	Reference latest annual planning table.	Possible	Major	Significant Risk
A4	Air Pollution	Halocarbons released from air conditioners	Office Air Conditioners	BC Ozone Depleting Substance Regulations	Likely	Moderate	Certified contractors		Reference multi-year standing targets	Unlikely	Minor	Low Risk
A7	Air Pollution	On-site road/yard dust	Roads/Yards		Almost Certain	Moderate	Water truck		-	Possible	Minimal	Low Risk
A8	Air Pollution	Building Fire – Combustion of structural materials, supplies, and waste	Site-Wide Buildings	National Fire Building Code	Likely	Catastrophic	Sprinkler system, fire extinguishers	Emergency Procedure Manual	-	Rare	Major	Low Risk
A9	Air Pollution	Mobile equipment emissions (dozers, loci's, loaders, forklifts, and generators)	Mobile Equipment	Metro Vancouver Off-Road Diesel Regulation	Almost Certain	Minor	Purchasing; maintenance and trained operators		Reference 2019 annual planning table.	Rare	Minor	Low Risk
A10	Air Pollution	Odor caused by off-spec storage	Yard (in southeast covered storage)	-	Unlikely	Minimal	Trained personnel		-	Unlikely	Minimal	Low Risk
A11	Air Pollution	Ships air emissions	Berth 1-3	-	Possible	Minor	Guidelines, shore power		-	Possible	Minor	Low Risk
A13	Air Pollution	Release of green house gases	Site General	BC Spill Reporting Regulation	Possible	Minor	Trained personnel		Reference 2019 annual planning table.	Possible	Minor	Low Risk
A14	Air Pollution	Release of dry bulk agricultural dust from neighboring facilities (Cargill and G3) to beyond their property boundary into the community	Cargill and G3	Respective facilities associated Air permits; Can. Ambient air quality guidelines.	Likely	Minor	Direct lines of communication via annual or bi-annual meetings with Cargill and G3	Direct lines of communication via annual or bi-annual meetings	TBD	Likely	Minor	Moderate Risk
C1	Conservation	Energy usage (fuel and electricity)	Site General	-	Almost Certain	Minor	Good operational practices, Strategic Energy	Generator Operation Procedure	Reference Annual Planning Table and SEMP	Possible	Minor	Low Risk

Aspect #	DESCRIPTIONS		Location or Activities	Applicable Regulatory Requirement(s)	Likelihood Pre-Controls	Consequence Pre-Controls	Principle Operational Controls in Place	Links		Likelihood Post-Controls	Consequence Post-Controls	Residual Risk
	Environmental Impact	Aspect						Standard Operation Practices	Objective, Targets & Programs			
							Management Plan, Green Marine, Climate Smart					
C2	Conservation	Purchases and/or services that may have a negative impact on the environment, community or business due to an inappropriate life-cycle	Upstream life-cycle considerations	-	**Possible**	**Minor**	Current version of Purchasing Policy and good operational practices	Purchasing Policy and contract terms and agreements as applicable	Increase the effective life span and decrease the environmental impact of purchased products and services	**Possible**	**Minor**	**Low Risk**
C3	Conservation	Inefficient municipal water consumption	Dust suppression and equipment cleaning	-	**Possible**	**Minor**	Good operational practices (weather station guided coal spray system), water meters		-	**Possible**	**Minor**	**Low Risk**
C4	Conservation	Life-cycle research and analysis of ways to prevent wasteful use of resources.	Site General/Upstream life-cycle considerations		**Possible**	**Minor**	Good operational practices, Strategic management plan and ongoing review/improvement to operations	Generator Operation Procedure	Reference Annual Planning Table and SEMP	**Possible**	**Minor**	**Low Risk**
R1	Residuals; Hazardous Waste	Improper handling and disposal of hazardous waste (e.g., waste oil, batteries, asbestos, and PCBs)	Hazardous Materials Management/Site General	BC Hazardous	**Possible**	**Major**	Trained personnel; containers including waste oil tank/storage area; audit and inventory	Hazardous Waste Management Procedure	-	**Unlikely**	**Moderate**	**Low Risk**
R2	Residuals; Hazardous Waste	Improper municipal garbage waste downstream and disposal (organic matter, plastic packaging)	Waste Management across site	-	**Likely**	**Moderate**	Good operational practices	Solid Waste Procedure Waste Reduction and Management Plan	-	**Unlikely**	**Minor**	**Low Risk**
R3	Residuals; Deleterious Waste	Release of residual (coal/dry bulk) from shiploaders to Burrard Inlet	Shiploading	BC Spill Reporting Regulation, BC Fisheries Act	**Likely**	**Moderate**	Trained personnel; good operating practices	Shiploading SOP	Prevent cargo spills to ocean. Reduce cargo plugs in Head Box	**Likely**	**Moderate**	**Significant Risk**
M3	Marine Habitat Disturbance	Losses of coal/drybulk to Burrard Inlet	Ship loading at Berths 1-3	Navigable Waters Act; Fisheries Act	**Likely**	**Major**	Foreshore collection ponds/sumps; trained operators, cascade chute; high efficiency conveyors	Operating Procedure	-	**Unlikely**	**Moderate**	**Low Risk**
L1	Light Pollution	NBT lights potentially disturbing neighbours	Lamps in yard		**Likely**	**Minor**	Adjust light head angles	Communication Procedure	-	**Rare**	**Minor**	**Low Risk**
N1	Noise Pollution	Excessive noise from site operations (rail squeaking wheels) and construction	General construction work in yard	City of North Vancouver Noise Bylaw	**Likely**	**Minor**	Sound walls; Lubricators noise monitoring. No weekend construction	Contractor guidance	Continue to Identify and minimize potential noise sources from operations, and construction equipment	**Unlikely**	**Minor**	**Low Risk**
S1	Site Contamination	Legacy (pre-NBT site occupation) contaminated groundwater and fill. Project excavations generating potentially contaminated soil and water from ground	Yard historic, construction in yard	BC Contaminated Soil Regulation	**Possible**	**Major**	Baseline monitoring. Soil and groundwater monitoring. Construction Environmental Management Plan	CEMP and relevant standards	Reference 2019 annual planning table.	**Unlikely**	**Minimal**	**Low Risk**
W1	Water Pollution	Hydraulic oil spills in the yard reaching Burrard Inlet	Mobile equipment and hydraulic pack spills in yard and dock	Fisheries Act; Spill Reporting Regulation	**Likely**	**Major**	Trained personnel, spill response equipment	Emergency Preparedness and Response Plan Storm Water Shut off Valves Procedure NBT-09-919-6-05	-	**Unlikely**	**Minor**	**Low Risk**
W2	Water Pollution	Surface run-off discharging to catch basins exceeding regulatory guidelines	Surface water in yard	Regulatory Guidelines for stormwater discharges	**Likely**	**Major**	Road/yard sweeping, foreshore ponds, separators, storm sewer mats located adjacent to all storm sewers	Effluent Sampling Program	-	**Possible**	**Major**	**Significant Risk**

Aspect #	DESCRIPTIONS		Location or Activities	Applicable Regulatory Requirement(s)	Likelihood Pre-Controls	Consequence Pre-Controls	Principle Operational Controls in Place	Links		Likelihood Post-Controls	Consequence Post-Controls	Residual Risk
	Environmental Impact	Aspect						Standard Operation Practices	Objective, Targets & Programs			
W3	Water Pollution	Bulk fuel storage, uses and dispensing spills reaching Burrard Inlet via Stormwater system or other means	Heavy duty shop tank, tank near Ops Building, Loci fueling	Fisheries Act; CCME Code of Practice AST/UST System	**Likely**	**Major**	Double-walled tanks, containment drip pans to sump, oil/water separators	Fuel Dispensing Procedure NBT 09-919-6-001-09 for re-fueling NBT equipment	-	**Unlikely**	**Major**	**Moderate Risk**
W4	Water Pollution	Release of contaminated fire control water to Burrard Inlet	Surface water (from emergency response) in yard	Fisheries Act/Spill Reporting Regulation	**Possible**	**Moderate**	Diversion of contaminated fire water to containment or CWTS	Emergency Preparedness and Response Plan	-	**Rare**	**Moderate**	**Low Risk**
W6	Water Pollution	Spills to Burrard Inlet from improper storage of small volume containers (jerry cans, 20 L pails)	Containers in building and yard	Fisheries Act/Spill Reporting Regulation	**Possible**	**Moderate**	Contained storage, spill response kits/supplies	Emergency Preparedness and Response Plan Storm Water Shut off Valves Procedure 09-919-6-05	-	**Unlikely**	**Minor**	**Low Risk**

APPENDIX B: ENVIRONMENTAL ASPECT STANDING TARGETS - TEMPLATE

Aspect		Primary Objective	Target	Indicators	Action Plan	Responsible Person	Resources Required	Initiated	Evaluation of Results	Status	Comments
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											

APPENDIX C: ANNUAL PLANNING TABLE – TEMPLATE

2025 ANNUAL PLANNING TABLE					
Aspect	**ID #**	**Project Name**	**Project Environmental Perspective**	**Capital**	**STATUS**

APPENDIX D: LEGAL AND OTHER REQUIREMENTS REGISTER

This list includes Acts, Regulations, Codes and Guidelines that may apply to NBT's business activities and is reviewed annually. Legal counsel and environmental consultants may be engaged to provide added assurance that regulatory requirements are up-to-date.
Last Updated: January 2024

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DESCRIPTION OF REGISTERED ITEMS

1 FEDERAL ACTS, REGULATIONS AND GUIDELINES

1.1 Canadian Environmental Protection Act, 1999 (CEPA)

On June 13, 2023, Bill S-5, Strengthening Environmental Protection for a Healthier Canada Act received Royal Assent, making the first substantial amendments to the CEPA since 1999: 1) CEPA now recognizes that Canadians have a "right to a healthy environment" as provided under CEPA; and 2) changes were made to the process of assessing toxic substances under CEPA and the list of toxic substances in Schedule 1. These amendments to CEPA came into effect on June 22, 2023. CEPA ensures that chemical substances are assessed to determine whether they meet the legislated criteria of a toxic substance.

Key Violations/Provisions

Imposes notification requirements in the event of a release or likely release of a toxic substance into the environment and a requirement to take reasonable measures to prevent the release or, if it cannot be prevented, to remedy any dangerous condition or reduce or mitigate any danger to the environment or to human life or health that results from the release of the substance or may reasonably be expected to result if the substance is released (s. 95).

- A **substance is toxic** if it is entering or may enter the environment in a quantity or concentration under conditions that (a) have or may have an immediate or long-term harmful effect on the environment or its biological diversity; (b) constitute or may constitute a danger to the environment on which life depends; or (c) constitute or may constitute a danger in Canada to human life or health (s. 64). Substances are also listed on Schedule 1 of CEPA.

Requires anyone who owns or has the management, control, or charge of a substance or who causes or contributes to an "environmental emergency" to take all reasonable emergency measures to prevent the environmental emergency and to clean-up a spill if one occurs (s. 201). An "environmental emergency" includes an accidental releases of a substance listed in Schedule 1 of the Environmental Emergency Regulations into the environment. Listed substances include propane, butane, hydrogen, chlorine monoxide, liquefied natural gas, butylene, and gasoline.

Who to call

Call the Emergency Coordination Centre BC: **1-800-663-3456 (24/7).**

Requirements for notification of release or environmental emergency, including offices to notify and **contact numbers** are in the Schedule of the Release and Environmental Emergency Notification Regulations.

Penalties

Names corporate officers and directors as having potential personal liability as a result of activities under their control and direction causing an environmental incident (s. 280).

Every person who contravenes ss. 95 (take reasonable measures to prevent release of toxic substances and obligation to notify) or 201 (take reasonable reassurances to avoid environmental emergency and notify), or who contravenes an order, direction, or decision of a court made under CEPA, or who contravenes an order or direction made under the Act, including one made by a court, commits an offence and is liable (s 272):

- In the case of an individual: (1) on conviction on indictment, for a first offence, to a fine of not less than $15,000 and not more than $1,000,000 or to imprisonment for a term of up to three years, or to both, or (2) on summary conviction, for a first offence, to a fine of not less than $5,000 and not more than $300,000 or to imprisonment for a term of up to six months, or to both;

- In the case of a person other than an individual or a small revenue corporation1: (1) on conviction on indictment, for a first offence, to a fine of not less than $500,000 and not more than $6,000,000 or (2) on summary conviction, for a first offence, to a fine of not less than $100,000 and not more than $4,000,000;
- Fines are double for second and subsequent offences.

New offence for each day the non-compliance continues (s. 276).

Note: Also see National Pollutant Release Inventory (NPRI) below. NPRI is covered under sections 46 to 53 of CEPA.

Does not apply to NBT's regular operations: Regulates disposal of dredge material at sea. Permits are required for the loading for disposal and disposal of waste and other matter (s. 127). Prohibitions on:

- disposal of a substance in Canadian waters unless the substance is waste or other matter and the disposal is done in accordance with a Canadian permit (s. 125(1)).
- incineration on board a ship, platform, or another structure in the area of the sea referred to in any of paragraphs 122(2)(a) to (e) unless: (a) the substance is waste generated on board the ship, platform or other structure during normal operations; or (b) the incineration is done in accordance with a permit (s. 126).

See: Disposal at Sea Regulations (Part 7, Division 3 of CEPA).

Canadian Environmental Protection Act, 1999

1.1.1 Disposal at Sea Regulations

CEPA

Dredge material must first be sampled and analysed for several chemical parameters (e.g., metals, PCBs, PAHs) and possibly biological testing to determine if material is suitable for ocean disposal or alternate methods (e.g., landfill) (ss. 4-8).

Disposal at Sea Regulations, SOR/ 2001-275

1.1.2 Disposal at Sea Permit Application Regulations

CEPA

Sets out the requirements for disposal at sea permit applications, including the application form (as required under Part 7, Division 3 of CEPA – Disposal at Sea)

Note also that Vancouver Fraser Port Authority PER permit application forms query whether applicable approvals are obtained from other regulators, including disposal at sea permits.

Disposal at Sea Permit Application Regulations, SOR/2014-177

1.1.3 Environmental Emergency Regulations, 2019 – CEPA

Require those who own or have charge, management, or control of listed substances (s. 2) to submit an environmental emergency plan to Environment Canada.

Environmental Emergency Regulations, 2019

1.1.4 Federal Halocarbon Regulations, 2022

CEPA (FHR)

[1] A small revenue corporation is any corporation whose gross revenues in the 12 months before the subject matter of the proceedings were less than $5,000,000 (s. 272.3)

The purpose of the FHR is to protect the ozone layer and the climate by reducing and preventing emissions of ozone-depleting substances and of their halocarbon alternatives to the environment from air-conditioning, refrigeration, fire-extinguishing and solvent systems, and containers that are:

- located on federal or aboriginal lands; or
- owned by federal departments, boards and agencies, Crown corporations, or federal works and undertakings, including a port authority(s. 2)

The FHR:

- prohibits the release of halocarbons to the environment with some exceptions (s. 3);
- set restrictions and requirements regarding the installation, operation and service of systems and containers containing or designed to contain halocarbons listed in schedule 1 (s. 4);
- set information requirements, such as the inventory of large systems and containers, activity logs and notices to be affixed to systems or containers that are permanently withdrawn from use (ss. 22 and 23); and
- set reporting obligations for releases of more than 10kg of halocarbon (s. 25).

A copy of all documents required under the FHR must be kept by the owner on site where the systems or containers are located, for a period of at least five years (s. 26).

Federal Halocarbon Regulations, 2022

1.1.5 Release and Environmental Emergency Notification Regulations

CEPA

Contact Provincial Emergency Program (PEP) in the event of a release, or imminent release of a deleterious substance to fish bearing waters. Requirements for notification, including offices to notify and contact numbers are in the Schedule of the Release and Environmental Emergency Notification Regulations

Who to call

Call the Emergency Coordination Centre BC: **1-800-663-3456 (24/7)**

Release and Environmental Emergency Notification Regulations

1.1.6 Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulations

CEPA

Applies to diesel and fuel above ground tank systems on site (volume greater than 2500L). Note: This does not apply to storage tank systems located in a building that provides secondary containment equivalent to a maximum hydraulic conductivity of 1 x 10-6 cm/s, on a continuous basis.

- Requirement to immediately remove components or tank system from service until leak(s) are repaired (s. 3).
- Register tanks as per Schedule 2.
- Requirements for tanks system decommissioning (ss. 4-10).
- Requirement to ensure emergency plan is available and current (s. 30).
- Adopts much of CCME Code of Practice for Aboveground and Underground Storage Tank Systems Containing Petroleum and Allied Petroleum Products (s. 14).

Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulations

1.1.7 National Pollutant Release Inventory

CEPA (NPRI) – addressed under Sections 46 to 53

National Pollutant Release Inventory (NPRI) tracks on-site releases of pollutants to air, water, land, and underground, among other things.

Requires annual calculations to determine if particulate thresholds are exceeded, at which point an NPRI report must be submitted.

Amendments to section 46 of CEPA came into effect in June 2023 which added, among others, a catchall category of "activities that may contribute to pollution" (s.46(k.1)) as a category which a person subject to a notice issued by the Minister must provide information about to the Minister.

On February 12, 2022, the Minister issued a Notice with respect to the substances in the National Pollutant Release Inventory for 2022, 2023 and 2024. Information for the 2024 calendar year must be submitted by June 2, 2025. We expect to see a new NPRI notice for reporting in the Spring of 2025.

For the most recent guide for reporting to the NPRI, see:

https://publications.gc.ca/site/eng/9.506026/publication.html

For the 2022 to 2024 Substance list by threshold category, see:

https://www.Canada.ca/en/environment-climate-change/services/national-pollutant-release-inventory/substances-list/threshold.html

For lists of current and recent change proposals, see:

https://www.Canada.ca/en/environment-climate-change/services/national-pollutant-release-inventory/public-consultations/proposals-changes.html

For a complete list of up-to-date information on NPRI reporting requirements, see:

https://www.Canada.ca/en/environment-climate-change/services/national-pollutant-release-inventory/report/legal-requirements-gazette-notices.html

For the most recent NPRI notice in the Canada Gazette (published on February 12, 2022, and applies to NPRI reports due on June 1, 2023, June 3, 2024, and June 2, 2025) see:

https://www.gazette.gc.ca/rp-pr/p1/2022/2022-02-12/pdf/g1-15607.pdf#page=175.

1.1.8 Off-road Compression-Ignition (Mobile and Stationary) and Large Spark-Ignition Engine Emission, SOR/ 2020-258

CEPA

These regulations set performance-based emissions standards for air pollutants from new off-road diesel engines and large spark-ignition engines.

See the Air pollution: regulations for vehicles and engines guidance document.

Off-road Compression-Ignition (Mobile and Stationary) and Large Spark-Ignition Engine Emission Regulations, 2020

1.2 Fisheries Act (FA)

The purpose of the FA is to provide a framework for (a) the proper management and control of fisheries; and (b) the conservation and protection of fish and fish habitat, including by preventing pollution (s. 2.1)

Key Provisions/Violations

Unless previously authorised, the FA prohibits and requires reporting of:

- the deposit or permitting the deposit of a deleterious substance of any type in water frequented by fish or in any place under any conditions where the deleterious substance or any other deleterious substance that results from the deposit of the deleterious substance may enter any such water without a permit (s. 36(3)).
- any work, undertaking or activity that results in the death of fish (s. 34.4) or the harmful alteration, disruption, or destruction of fish habitat (s. 35).

Duty to notify, without delay, an inspector, a fishery officer, fishery guardian or an authority prescribed by the regulations of an occurrence that results in the unauthorized death of a fish (s. 38(4)), the unauthorized harmful alteration, disruption or destruction of fish habitat (s. 38(4.1)), unauthorized deposit of deleterious substance in water frequented by fish, or of a serious and imminent danger of such any such occurrences (s. 38(5)).

Requirement to take all reasonable measures consistent with public safety and with the conservation and protection of fish and fish habitat to prevent the occurrence or to counteract, mitigate or remedy any adverse effects that result from the occurrence or might reasonably be expected to result from it (s. 38(6)).

Requirement to provide a written report to an inspector, fishery officer, fishery guardian or authority prescribed by the regulation as soon as feasible after the occurrence of or after learning of the danger of the occurrence (s. 38(7)).

Who to call

British Columbia report a spill (deposit of a deleterious substance) to Emergency Coordination Centre BC: **1-800-663-3456 (24/7).**

Penalties

Anyone who contravenes ss. 34.4(1) (death of fish), 35(1) (harmful alteration, disruption or destruction of fish habitat), or 36(3) (deposit of deleterious substances) is liable (s. 40):

- In the case of an individual, (1) on conviction on indictment for a first offence, to a fine between $15,000 and $1,000,000 or, for a second or subsequent offence to a fine of between $30,000 and $2,000,000, or to imprisonment for up to three years, or to both; or (2) on summary on conviction to a fine between $5,000 and $300,000 or, for a second or subsequent offence, to a fine of between $10,000 and $600,000, or to imprisonment for up to six months, or to both.
- In the case of a small revenue corporation, (1) on conviction on indictment for a first offence, to a fine between $75,000 and $4,000,000 or, for a second or subsequent offence to a fine of between $150,000 and $8,000,000; or (2) on summary on conviction to a fine between $25,000 and $2,000,000 or, for a second or subsequent offence, to a fine of between $50,000 and $4,000,000.
- In the case of person other than an individual or a small revenue corporation, (1) on conviction on indictment for a first offence, to a fine between $500,000 and $6,000,000 or, for a second or subsequent offence to a fine of between $1,000,000 and $12,000,000; or (2) on summary on conviction to a fine between $100,000 and $4,000,000 or, for a second or subsequent offence, to a fine of between $200,000 and $8,000,000.
- A corporation that contravenes ss. 35(2) (HADD), among other sections, is liable on summary conviction to a fine of up to $200,000
- Each day on which a contravention is committed or continued constitutes a separate offence (s. 78.1).

Any officer, director or agent of a corporation who directed, authorized, assented to, acquiesced in or participated in the commission of an offence is a party to that offence (s. 78.2)

Fisheries Act

1.2.1 Applications for Authorizations Concerning Fish and Fish Habitat Protection Regulations

Fisheries Act

Sets out the process for applying for authorization under the FA to carry out works that will result in the death of fish or the permanent alteration/destruction of fish habitat.

Authorizations Concerning Fish and Fish Habitat Protection Regulations

See also:

Fish and Fish Habitat Protection Policy Statement (2019), describes how avoidance, mitigation and offsetting form a hierarchy of measures to limit harmful impacts to fish and fish habitat, emphasizing that efforts should be made first to prevent (avoid) and then minimize (mitigate) harmful impacts to limit harm to fish and fish habitat: http://www.dfo-mpo.gc.ca/pnw-ppe/policy-politique-eng.html

Policy for Applying Measures to Offset Harmful Impacts to Fish and Fish Habitat (May 2023 Draft for Discussion), provides guidance to proponents and DFO staff on the use of offsetting measures to counterbalance harmful impacts to fish and fish habitat and guidance on the development of offsetting plans when seeking authorization under sections 34.4(2)(b) for death of fish and/or 35(2)(b) for harmful alteration, disruption or destruction of fish: https://www.talkfishhabitat.ca/38105/widgets/157978/documents/109255

Applicant's Guide Supporting the Authorizations Concerning Fish and Fish Habitat Protection Regulations, provides applicants seeking an authorization for the purpose of paragraphs 34.4(2)(b) and 35(2)(b) of the Fisheries Act with guidance on how to develop and submit an application in accordance with the Regulations, or to request the amendment, suspension, in whole or in part, or the cancellation of an authorization already in their possession: https://www.dfo-mpo.gc.ca/pnw-ppe/reviews-revues/applicants-guide-candidats-eng.html

1.2.2 Deposit Out of The Normal Course of Events Notification Regulations

Fisheries Act

Contact Provincial Emergency Program (PEP) in the event of a release, or imminent release of a deleterious substance to fish bearing waters.

Who to call

Call the Emergency Coordination Centre BC to report a deposit of a deleterious substance: **1-800-663-3456 (24/7)**

Deposit Out of the Normal Course of Events Notification Regulations

1.3 Canadian Navigable Waters Act (CNWA)

The CNWA regulates construction of works, obstructions and deposit of substances in navigable waters.

Key Provisions/Violations

CNWA applies to 3 oceans, 97 lakes and portions of 89 rivers. This includes the Burrard Inlet (Regulated Waterways).

Sets out requirements that minor works would need to meet on any navigable water in Canada (s. 4).

Prohibits work in Regulated Waterways without prior approval of Transport Canada.

An owner must make an application to the Minister for approval to construct, place, alter, rebuild, remove or decommission:

(a) a major work in, on, over, under, through or across any navigable water; or

(b) a work — other than a minor work — in, on, over, under, through or across any navigable water

if the work, or its construction, placement, alteration, rebuilding, removal or decommissioning, may interfere with navigation (s. 5).

Prohibits dewatering in Regulated Waterways (s. 23).

Who to call

Pacific Region - Regional Manager
Navigation Protection Program
Transport Canada
Pacific Regional Office
820-800 Burrard Street
Vancouver, BC V6Z 2J8

Phone: 604-775-8867

Email: NPPPAC-PPNPAC@tc.gc.ca

Penalties

Anyone who contravenes ss. 4(1) or (2) (minor works), 5(1) (application for major works) or 23 (dewatering and other actions) is guilty of an offence and is liable, on summary conviction (s. 40):

- In the case of an individual, (1) for a first offence, to a fine of not more than $100,000, and (2) for a second or subsequent offence, to a fine of not more than $200,000 or to imprisonment for a term of not more than six months, or both; and
- In the case of a corporation, (1) for a first offence, to a fine of not more than $500,000, and (2) for a second or subsequent offence, to a fine of not more than $1,000,000.

Each day on which a contravention is committed or continued constitutes a separate offence (s. 40(3))

Names corporate officers and directors as having potential personal liability as a result of activities under their control and direction (s. 40(4)) Directors and officers are required to take all reasonable care to ensure a corporation complies with the Act (s. 40(5).

Canadian Navigable Waters Act

1.3.1 Navigable Waters Works Regulations

Canadian Navigable Waters Act

Regulates: buoys and marks; equipment and debris; dams; exploration and development; and sound signals.

Prohibition on tools, equipment, vehicles, temporary structures or parts used or maintained for the purpose of building or placing a work in a navigable water remaining in navigable water after the completion of the project (s. 5).

Where a work or a portion of a work that is being constructed or maintained in a navigable water causes debris or other material to accumulate on the bed or on the surface of such water, the owner of that work or portion of that work is required to remove the debris or other material to the satisfaction of the Minister (s. 6).

Penalties

Every person who violates the Regulations is liable on summary conviction to a fine of $500 or to imprisonment for a term of six months or to both (s. 15).

Navigable Waters Works Regulations

1.3.2 Minor Works Order

Canadian Navigable Waters Act

The Minor Works Order allows for works to be built without review or approval if they meet the criteria for the applicable class of works, as well as specific terms and conditions for construction. Works meeting the criteria of the Minor Works Order are considered "minor works" under the CNWA and may proceed without application as long as they comply with the legal requirements set out in the order. The classes of works currently established for minor works are:

- Erosion - Protection Works (s. 12)
- Docks and Boathouses (s. 14)
- Boat-Launching Ramps and Slipways (s. 15)
- Aerial Cables – Power and Telecommunication (s. 16)
- Submarine Cables – Power Telecommunication (s. 17)
- Pipelines Buried Under the Bed of Navigable Water (s. 19)
- Pipelines and Cables Used for Power or Telecommunication Purposes Attached to an Existing Work (s. 23)
- Works within a Boomed-Off Area Upstream or Downstream of an Existing Work For Water Control (s. 25)
- Outfalls and Water Intakes (s. 26)
- Dredging (s. 28)
- Mooring Systems (s. 31)
- Watercourse crossings (s. 34)

It is the responsibility of the owner to ensure that all legal requirements under the Order are met.

At least 48 hours before beginning the construction, placement, alteration, rebuilding, removal or decommissioning of a minor work in, on, over, under, through or across a charted navigable water, the owner of the minor work must, in writing, notify a Canadian Coast Guard Marine Communications and Traffic Services Centre of the day on which the activity is expected to begin (s. 4)

Penalties

A person that violates the Minor Works Order is liable, on summary conviction. (CNWA, ss. 40(1)(f), 40(1.1))

- In the case of an individual, (1) for a first offence, to a fine of not more than $100,000, and (2) for a second or subsequent offence, to a fine of not more than $200,000 or to imprisonment for a term of not more than six months, or both; and
- In the case of a corporation, (1) for a first offence, to a fine of not more than $500,000, and (2) for a second or subsequent offence, to a fine of not more than $1,000,000.

Minor Works Order - CNWA

1.4 Canada Labour Code (Labour Code)

A number of changes to the Labour Code came into effect in 2023:

- Amendments to require employers to provide reimbursement for reasonable work-related expenses incurred on or after July 9, 2023 (s. 238.1). See Interpretations, Policies and Guidelines for guidance on these requirements. For an expense to be eligible for reimbursement, the employee must (1) not have to pay it as part of a written or collective agreement, (2) have paid the expense out-of-pocket, (3) be work-related, and (4) be reasonable.
- An employer must provide its employees with a copy of materials made available by the Minister of Labour (Minister) containing information respecting employers' and employees' rights under the Labour Code. Terminated

employees must also be provided, not later than their last day of employment, with a copy of the Minister's most recent materials relating to terminations of employment. (s. 253.1)

- Employment statements: an employer must, within the first 30 days of an employee's employment, provide the employee with a written statement containing information relating to their employment that is prescribed in section 3.1 of the Canada Labour Standards Regulations (s. 253.2), including names of the parties to the employment relationship, job title and a brief description of duties and responsibilities; address of the employee's ordinary place of work; date on which the employment commences; term of the employment; duration of the probationary period, if any; description of the necessary qualifications for the position; description of any required training for the position; hours of work for the employee, including information on the calculation of those hours and rules regarding overtime hours; rate of wages or salary and the rate of overtime pay; frequency of pay days and the frequency of payment of any other remuneration; any mandatory deductions from wages; and information about how the employee can claim reimbursement of reasonable work-related expenses.

Effective **February 1, 2024,** the current termination of employment provisions of the Labour Code, which provide for two (2) weeks' notice of termination, will be replaced with a graduated notice system. The new provisions will be set out in a new section 230(1.1). Employees will be entitled to the following notice of termination, pay in lieu of notice, or some combination thereof.

Key Provisions/Violations

Part II governs Occupational Health & Safety.

Penalties

Every person who contravenes a provision in Part II is guilty of an offence and liable: (a) on conviction on indictment, to a fine of not more than $1,000,000 or to imprisonment for a term of not more than two years, or to both; or (b) on summary conviction, to a fine of not more than $100,000 (s. 148(1)).

Every person who contravenes a provision of Part II the direct result of which is the death of, serious illness of or serious injury to an employee is guilty of an offence and liable: (a) on conviction on indictment, to a fine of not more than $1,000,000 or to imprisonment for a term of not more than two years, or to both; or (b) on summary conviction, to a fine of not more than $1,000,000 (s. 148(2)).

Canada Labour Code

1.4.1 Canada Occupational Health and Safety Regulations
Labour Code

The Regulations are a component under the Labour Code which outlines standards for employees in various workplaces for best practices to ensure employees work in a productive, healthy, and safe environment.

Certain amendments came into effect April 12, 2023, including but not limited to:

- Edits to text in the following sections:

  Section 1.2 – Interpretation (under Part I)
  Section 20.1 – Regular Rate of Wages

Canada Occupational Health and Safety Regulations

1.4.2 Maritime Occupational Health and Safety Regulations
Labour Code

The Regulations outline practices for employees working on-board vessels to help protect workers and prevent accidents and injuries in the workplace. This document is often compared with the Canadian Occupational Health and Safety Regulations to ensure safe working conditions for all.

Note: These Regulations apply only to employees employed: (a) on vessels registered in Canada; (b) on un-commissioned vessels of His Majesty in right of Canada; and (c) in the loading or unloading of vessels.

The latest changes came into effect May 2, 2022:

- Edits to text in the following sections:
  - Section 142 (1) Respiratory Protection (under PART 10 Protection Equipment)
  - Section 174 (1) Ventilation Equipment (under PART 10 Protection Equipment)
  - Section 194 (1) Ventilation Equipment (under PART 16 Hot Work Operations)

Maritime Occupational Health and Safety Regulations

1.4.3 On Board Trains Occupational Health and Safety Regulations

Labour Code

These Regulations apply in respect of employees on trains while in operation and in respect of all persons granted access to trains by an employer. The Regulations deal with elevating devices, lighting, sound levels, electrical safety, sanitation, hazardous substances, safety materials, equipment, devices and clothing, hand tools and materials handling, hazardous occurrence investigation, recording and reporting etc.

The latest changes came into effect May 2, 2022:

- Edits to text in Section 8.8 Respiratory Protection (under PART VIII Safety Materials, Equipment, Devices and Clothing)

On Board Trains Occupational Health and Safety Regulations

1.5 Transportation of Dangerous Goods Act (TDG)

The purpose of the Act is to promote public safety when dangerous goods are being imported, offered for transport, handled or transported by road, rail, air, or water. A' Dangerous Good' means a product, substance or organism included by its nature or by the regulations in any of the classes listed in the schedule (explosives, gases, flammable and combustible liquids, flammable solids, oxidizing substances, poisonous substances, corrosives, and other substances considered by the Governor in Council to be dangerous to life, health, property or the environment).

Key Provisions/Violations

Specifies how regulated products must be managed, stored, or shipped.

- Requirement to comply with all applicable prescribed safety requirements and documentation before importing, offering for transport, handling, or transporting dangerous goods (s. 5).
- Requirement to comply with all safety requirements before designing, manufacturing, repairing, testing or equipping a means of containment used or intended to be used in importing, offering for transport, handling or transporting dangerous goods (s. 5.1).
- Prohibition on affixing or displaying on a means of transport a containment mark unless manufacturing, repairing, and testing was done in compliance with all safety requirements and safety standards applicable to that compliance mark (s. 6).

- Prohibition on affixing or displaying on dangerous goods, on a means of containment, or on a means of transportation a dangerous goods mark that is likely to be mistaken or misleading as to the presence of any danger or the nature of any danger (s. 6.1).
- Requirement for a person to have an approved emergency response assistance plan outlining what is to be done if there is an accident in transporting the dangerous goods (s. 7).
- Minister's powers to direct or authorize a person with an approved emergency response assistance plan to implement the plan (s. 7.1).
- Requirement for a person to undergo security training and develop a security plan to prevent dangerous goods from being stolen or otherwise unlawfully interfered with while they are being imported, offered for transport, handled, or transported (s. 7.3). Requires training every three years. (Transportation of Dangerous Goods Regulations, s. 6.5(b))
- Requirement to display all applicable safety marks before selling, offering for sale, delivering, distributing, importing, or using a standardized means of containment (s. 8).
- Requirement for any person who imports, offers for transport, or transports or handles dangerous goods to be financially responsible in accordance with the regulations and to provide proof of financial responsibility to the inspector upon request (s. 14).
- Includes requirements for reporting spills of dangerous goods if the spill is over a specified quantity (some potentially relevant reportable spill quantities are provided in the BC Spill Reporting Regulation). (s. 18)

Who to call

CANUTEC (in case of emergency): **1-888-226-8832 or 613-996-6666 or *666 on cell phone**

TDG Pacific Regional Office (non-emergency): **604-666-2955**

Emergency Management Centre BC: **1-800-663-3456 (24/7)**

Penalties

Names corporate officers and directors as having potential personal liability if they directed, authorized, assented to, acquiesced in or participated in the commission of an offence (s.39).

On summary conviction for a contravention of the Act or regulations, a fine of up to $50,000 for a first offence and up to $100,000 for each subsequent offence. On indictment, imprisonment for a term of up to two years (s. 33(2)).

It is a defense if a person proves they took all reasonable measures to comply with this Act or to prevent the commission of the offence (s. 40).

Transportation of Dangerous Goods Act

1.5.1 Transportation of Dangerous Goods Regulations

TDG

Amendments to the TDG Regulations came into force on October 25, 2023, requiring persons or organizations involved in importing, offering for transport, handling, or transporting dangerous goods to register their organizations and sites in the Client Identification Database.

Specifies dangerous goods, which are arranged into classes such as: explosives; gases; flammable liquids; flammable solids; oxidizing substances; toxic and infectious substances; radioactive materials; corrosives; and miscellaneous products, substances, or organisms.

- Part 2 - Classification: describes how to determine when substances are dangerous goods.

- Part 3 – Documentation: describes the documentation that must accompany dangerous goods in transport.
- Part 4 – Dangerous Goods Safety Marks: sets out requirements for dangerous goods safety marks.
- Part 5 – Means of Containment: sets out requirements for means of containment (containers and packaging).
- Part 6 – Training: describes training requirements for persons who handle or transport dangerous goods.
- Part 7 – Emergency Response Assistance Plan: sets out requirements for emergency response assistance plans required under the Act.
- Part 8 – Reporting Requirements: describes reporting requirements in the event of a release or anticipated release of a dangerous good.
- Part 11 – Marine: describes particular requirements for the transportation of dangerous goods by ship.

Transportation of Dangerous Goods Regulations

1.6 Canada Shipping Act, 2001

Key Provisions/Violations

Governs the discharge or dumping of oil or oily waste from ships. Fisheries and Oceans Canada and Transport Canada jointly administer and enforce this Act.

Applies to vessels in Canadian waters or waters in the exclusive economic zone of Canada and to oil handling facilities in Canada (s. 166).

General prohibition on discharge of prescribed pollutants (s. 187). Prohibitions regarding specific pollutants include:

- oil and oily mixtures (Vessel Pollution and Dangerous Chemicals Regulations, ss. 7(1) and 29);
- noxious liquid substances (Vessel Pollution and Dangerous Chemicals Regulations, ss. 7(2), 67(1) and 71(1));
- marine pollutants (Vessel Pollution and Dangerous Chemicals Regulations, s. 82);
- sewage (Vessel Pollution and Dangerous Chemicals Regulations, s. 95);
- garbage (Vessel Pollution and Dangerous Chemicals Regulations, ss. 7(3) and 100);
- organotin compounds that act as biocides as part of an anti-fouling system (Vessel Pollution and Dangerous Chemicals Regulations, s. 127); and
- ballast water (Ballast Water Control and Management Regulations, s. 10).

It is an offence for a person, while committing any other offence under the Act, to intentionally or recklessly cause a disaster that results in the loss of life or serious damage to the environment, or show a wanton or reckless disregard for the lives of safety of other persons, causing a risk of death or bodily harm to another person (s. 253).

Who to call:

To report pollution or threats of pollution, contact a Marine Communications and Traffic Services (MCTS) centre on VHF channel 16, by calling *16 on a cell phone (where available), or by calling 1-800-889-8852 (24/7).

Penalties

Every person or vessel who contravenes s. 187 (discharge of a pollutant), is liable on summary conviction to a fine of up to $1,000,000 or imprisonment for a term of up to 18 months, or both (s. 191(2)). A person or vessel is liable to be convicted for a separate offence for each day the offence is committed or continued (s. 191(3)). There is no provision for proceeding under s. 187 by indictment but s. 187 may be the underlying offence for an indictment under s. 253(1).

Canada Shipping Act, 2001

1.6.1 Vessel Pollution and Dangerous Chemicals Regulations

Canada Shipping Act

Addresses a variety of categories of pollutants, including oil, noxious liquid substances, harmful substances carried in packaged form, sewage, garbage, air emissions, pollutant substances, and anti-fouling systems. The Regulations apply to all vessels operating in waters under Canadian jurisdiction and to Canadian vessels operating anywhere. The Regulations also implement requirements for vessel construction, equipment, inspection, certification, record keeping, reporting of pollution incidents, and operations.

- Requirements for the control of emissions from vessels. These include limits on the discharge of emissions containing ozone-depleting substances, nitrogen oxides and dioxides from diesel engines, sulphur, sulphur oxides, and volatile organic compounds. In addition, requirements are specified for shipboard incineration and for fuel oil quality (Part 2, Division 6, Subdivision 1).
- Requirements on the emission of smoke from vessels. This includes requirements on the density of black smoke as determined by visual observation and general limits on smoke emissions (s. 118).

Vessel Pollution and Dangerous Chemicals Regulations

1.6.2 Cargo, Fumigation and Tackle Regulations

Canada Shipping Act

Requirements regarding the shipping and handling of various cargo, including dangerous goods. In particular, bulk cargo (Part 1, Division 2).

1.7 Marine Liability Act

Outlines avenues for liability and compensation for ship-source oil pollution in the event of marine environmental emergencies.

Liabilities

The owner of a ship at the time of an incident is liable for any loss or damage caused by the escape or discharge of oil from the ship (Schedule 5, Arts I & III.1, incorporated via s. 48).

The owner of a ship is liable for any loss or damage outside the ship caused by contamination resulting from the discharge of an oil pollutant from a ship (s. 77(1)).

The owner of a ship is liable for the costs and expenses of incurred by the Minster of Fisheries and Oceans for pollution response measures and monitoring and the costs and expenses of any person for actions taken or refrained from being taken as a result of response measures and monitoring (s. 77).

Marine Liability Act

1.8 Impact Assessment Act (IAA)

The IAA came into force on August 28, 2019 (replacing the Canadian Environmental Assessment Act, 2012) and establishes impact assessment (IA) process for construction of new facilities or modification of existing facilities depending on scope of project. As a result of a recent Supreme Court of Canada decision that held the scheme related to designating projects for review was unconstitutional, whereas the scheme related to federal lands or matters outside of Canada was constitutional, we expect new legislation to be introduced. However, no timing for an update to the IAA has been announced. The government has said it is looking for the “shortest path” to bring the IAA into compliance. **Applicability of the IAA to new projects or modifications to existing facilities should be considered on a case-by-case basis.**

All projects within the VFPA lease and water lot are considered federal lands. However, the Physical Activities Regulations were deemed unconstitutional. The federal government has introduced Interim Guidance on the Impact Assessment Act and we expect further amendments and clarifications to be forthcoming. The government is pausing the discretionary process to designate projects under the IAA until the amending legislation is introduced. No timing for an update to the IAA has been announced, but the government is looking for the "shortest path" to bring the IAA into compliance.

Key features of the IAA include: proactive, strategic and regional assessment to evaluate big-picture issues (i.e. climate change, biodiversity, species at risk, etc.); outlined cumulative effects of development; context for impact assessments; early planning and engagement phase to build trusts, increase efficiency, improve project design, and give companies certainty about the next steps in the review process; Indigenous engagement and partnership throughout the process; increased public participation opportunities; legislated timelines to provide clarity and regulatory certainty; reduced timelines for agency-led impact assessments; and strengthened monitoring, follow-up and enforcement of life-cycle regulators and permitting departments.

The Port of Vancouver has indicated that this will likely affect the review timelines for some Category A and B project permits.

Port Metro Vancouver administers its Project and Environmental Review process under Impact Assessment Act and the Canada Marine Act. See 5.1.1 of this table for more information.

Impact Assessment Act

1.8.1 Information and Management of Time Limits Regulations

IAA

Prescribes information for an initial project description, including project type, proponent's contact information, summary of engagement activities, a list of Indigenous groups that may be affected by the project, any study that has been conducted in respect of the region where the project will be carried out, and a statement of the purpose and need for the project (including potential benefits).

Information and Management of Time Limits and Regulations

1.8.2 Physical Activities Regulations

IAA

On October 13, 2023, the Supreme Court of Canada released a decision which held that these designation provisions are unconstitutional (on the basis that the discretionary designation system needs to be more definitively connected to components squarely under federal jurisdiction). The federal government has accepted this determination and is in the midst of revising the federal environmental assessment legislation. In the interim, the Minister of the Environment and Climate Change will not be exercising the discretionary power to designate any projects under the IAA. The federal government has introduced Interim Guidance on the Impact Assessment Act and we expect further amendments and clarifications to be forthcoming. The government is pausing the discretionary process to designate projects under the IAA until the amending legislation is introduced. **Applicability of the IAA to new projects or modifications to existing facilities should be considered on a case-by-case basis.**

- DWT unless the terminal is located on lands that are routinely and have been historically used as a Marine Terminal or that are designated for such use in a land-use plan that has been the subject of public consultation (NB: Not applicable to NBT's current operations), and (b) expansion of an existing Marine Terminal, if the expansion requires

the construction of a new berth designed to handle ships larger than 25,000 DWT and, if the berth is not a permanent structure in the water, the construction of a new permanent structure in the water.

- **Not applicable to NBT's current operations:** A federal IA is required for (a) the expansion of an existing railway yard, if the expansion would result in an increase of its total area by 50% or more and a total area of 50 ha or more; and (b) the construction, operation, decommissioning and abandonment of a new: (i) railway line that requires a total of 50km or more of new right of way, (ii) railway yard with total area of 50 ha or more, and (iii) all-season public highway that requires a total of 75km or more of new right of way.
- **Not applicable to NBT's current operations:** A federal IA is required for the construction, operation, decommissioning and abandonment of a new: (a) railway line that requires a total of 32 km or more of new right of way; (b) railway yard with seven or more yard tracks or a total track length of 20 km or more; (c) all-season public highway that requires a total of 50 km or more of new right of way; or (d) railway line designed for trains that have an average speed of 200 km/h or more.

Physical Activities Regulations

1.9 Migratory Birds Convention Act, 2022 (MBCA)

The MBCA implements the Migratory Birds Convention by protecting and conserving migratory birds and their nests

Key Provisions/Violations

Prohibits the disturbance, destruction or taking of the nests or eggs of migratory birds.

- Prohibition on the deposit of any substance that by itself, or in combination with another substance, is harmful to migratory birds, in waters or areas frequented by migratory birds or in a place from which the substance may enter such waters or such an area (s. 5.1(1) and (2)).
- Every master, chief engineer, owner and operator of a vessel — and, if the owner or operator is a corporation, every director and officer of the corporation who is in a position to direct or influence its policies or activities relating to conduct prohibited by section 5.1 — shall take all reasonable care to ensure that the vessel and all persons on board the vessel comply with section 5.1 (s. 5.4).
- Every director and officer of a corporation shall take all reasonable care to ensure that the corporation complies with this Act and the regulations (s. 5.5).

Who to call:

Report pollution incidents that include evident or suspected contamination of wildlife to the BC Provincial Emergency Program (Ministry of Public Safety and Solicitor General): **1-800-663-3456 (24/7).**

When pollution is not evident or suspected, to report dead migratory birds, including unknown cause of death and potential disease-related mortality to the 24/7 Wild Avian Mortality Investigation Hotline at **1-866-431-BIRD (2473).**

Other incidents involving migratory birds can be reported to Environment and Climate Change Canada at mailto:enviroinfo@ec.gc.ca or **1-800-668-6767.**

Penalties

A person or vessel that commits an offence under section 5.1 contravenes an order made by a court under the Act is liable: (ss. 13 and 13.03)

- for a first offence, (a) on conviction on indictment, to a fine of up to $1,000,000 (if an individual), $4,000,000 (if a small revenue corporation as determined under s. 13.02 or a vessel under 7,500 DWT), or $6,000,000 (if any other

person or a vessel over 7,500 DWT), or if an individual to imprisonment for a term of not more than three years (or both);

- (b) on summary conviction, to a fine of up to $300,000 (if an individual), $2,000,000 (if a small revenue corporation as determined under s. 13.02 or a vessel under 7,500 DWT), or $4,000,000 (if any other person or a vessel over 7,500 DWT), or if an individual to imprisonment for a term of not more than six months (or both).
- If convicted of a second or subsequent offence, the maximum available fines set out above are double those amounts.

Directors and officers of a corporation are required to take all reasonable care to ensure that the corporation complies with the Act and the regulations (s. 5.5).

A person that establishes that they exercised due diligence to prevent the commission of an offence under this Act, other than an offence of contravening paragraph 5.2(a), (c) or (d), knowingly contravening paragraph 5.2(b) or contravening section 5.3, shall not be found guilty of the offence (s. 13.17).

Migratory Birds Convention Act, 1994

1.9.1 Migratory Birds Regulations
MBCA

Sets out various prohibitions with respect to migratory birds. These new regulations came into force on July 30, 2022.

- An egg or nest destruction permit allows its holder and their nominees named in the permit to take and destroy the eggs of the species of migratory birds specified in the permit and to remove and destroy the nests of the species of migratory birds specified in the permit in an area described in that permit and subject to the conditions of that permit, and to dispose of the eggs or nests in the manner provided in the permit. (s. 70)
- A relocation permit allows its holders or their nominees named in the permit to undertake activities for the purpose of relocating the migratory birds, eggs and nests described in the permit, in the manner set out in the permit and subject to the conditions of that permit (s. 71).

Migratory Birds Regulations, 2022 - MBCA

1.10 Species at Risk Act (SARA)

SARA covers all wildlife species listed as being at risk nationally (and their critical habitats).

The protections in SARA apply throughout Canada to all aquatic species and migratory birds (as listed in the federal MBCA) regardless of whether the species are resident on federal, provincial, public, or private land. This means that if a species is listed in SARA and is either an aquatic species or a migratory bird, there is a prohibition against harming it or its residence, and penalties for such harm can be substantial.

Key Provisions/Violations

General prohibition on killing, harming, harassing, capturing, or taking an individual of a wildlife species that is listed as an extirpated species, an endangered species, or a threatened species (s. 32(1)).

Who to Call

DFO is responsible for aquatic species: 1-604-666-0384

Environment Canada is responsible for all other species, and has overall responsibility for administering SARA: 1-800-668-6767

Penalties

For contravention of s. 32(1), among other sections:

- On conviction on indictment for a corporation, a fine of not more than $1,000,000 and for any other person, a fine of not more than $250,000 or to imprisonment for a term of not more than five years, or both (s. 97(1.1)).
- On summary conviction for a corporation, a fine of not more than $50,000 and for any other person, a fine of not more than $50,000 or to imprisonment of a term of not more than one year, or both (s. 97(1.1)).
- Fines can be doubled for second or subsequent convictions, may be imposed for each day an offence continues, and may be cumulative (s. 97(1) to (5)).

Any director, officer, agent or mandatary who directed, authorized, assented to, or acquiesced or participated in the commission of the offence is a party to and guilty of the offence (s. 98) and a corporation may be convicted of an offence if it is established it was committed by an employee, agent or mandatary of the corporation (s. 99).

The Act was last amended in February 2023, at which point in time various edits were made to the List of Wildlife Species at Risk in Schedule 1.

Species at Risk Act

1.11 National Fire Code

Located on federal lands, NBT is subject to the National Fire Code which applies to existing construction, fire prevention (e.g., flammable storage) and maintenance.

Also regulates fuel piping and the construction, design, and layout of buildings.

National Fire Code

1.12 Canadian Council of Ministers of the Environment (CCME)

An intergovernmental forum for national and international environmental issues.

CCME publications are useful guidance including for due diligence.

CCME materials are not binding law unless adopted by provincial or federal legislatures.

Canadian Council of Ministers of the Environment

1.12.1 Environmental Code of Practice for AST and UST Systems Containing Petroleum and Allied Petroleum Products

CCME

Deals with design and maintenance requirements for tanks.

CEPA Regulations and National Fire Code requirements should be referenced for additional tank management and product storage requirements.

Environmental Code of Practice for AST and UST Systems Containing Petroleum and Allied Petroleum Products

1.12.2 Environmental Quality Guidelines

CCME

Provides a minimum requirement for ambient environmental quality of atmospheric, aquatic, and terrestrial ecosystems. Contains numerical values of concentrations of different environmental parameters of concern as well as narrative recommendations.

Current work includes development of:

- groundwater quality guidelines for the protection of environmental and human health for 99 chemicals of concern
- soil vapour quality guidelines for the protection of human health for 40 chemicals of concern
- soil quality guideline for the protection of human health for trivalent and hexavalent chromium
- updates to the soil quality guidelines for the protection of human health for lead and for cadmium
- soil and groundwater quality guidelines for perfluorooctanoic acid (PFOA)
- water quality guidelines for the protection of aquatic life for: 5 neonicotinoid insecticides; nickel; PFOA; and polycyclic aromatic hydrocarbons (PAHs).

Environmental Quality Guidelines

1.12.3 Canadian Ambient Air Quality Standards

CCME

This report is used as a benchmark for nation-wide anthropogenic activities with respect to presently known air pollutants. It aims at managing air quality by using scientifically assessed impacts on common receptors.

Changes in ambient air quality are set for 2025: Lower values are being targeted for NO_2, O_3 and SO_2. These targets are similar to those standards in the BC Ambient Air Quality Objectives fact sheet.

- See link for CCME Guidance Document Re: Canadian Ambient Air Quality Standards for NO_2
- See link for CCME Guidance Document Re: Canadian Ambient Air Quality Standards for O_3
- See link for CCME Guidance Document Re: Canadian Ambient Air Quality Standards for SO_2

Canadian Ambient Air Quality Standards

2 PROVINCIAL ACTS, REGULATIONS AND PERMITS

2.1 Transport of Dangerous Goods Act (TDG)

The purpose of this Act is to create a regime around the transport and safe handling of dangerous goods (which means any product, substance or organism included by its nature or by the regulations in any of the classes listed in the Schedule. The classes are explosives; gases; flammable and combustible liquids; flammable solids; oxidizing substances, poisonous substances, corrosives, and other substances which are considered by the Lieutenant Governor in Council to be dangerous to life, health, property or the environment when transported).

Key Provisions/Violations

Governs safe handling and transportation of dangerous goods in BC. A person must not handle or transport dangerous goods unless all applicable prescribed safety requirements are complied with, and all containers, packaging, road vehicles and rail vehicles comply with the applicable prescribed safety standards and display the applicable prescribed safety marks (s. 5).

“Dangerous goods” means any product, substance or organism included by its nature or by the regulation in any of the classes in the Schedule of the BC TDGA.

Class 1: Explosives, including explosives within the meaning of the Explosives Act (Canada).
Class 2: Gases; compressed, deeply refrigerated, liquefied or dissolved under pressure.

Class 3: Flammable and combustible liquids.
Class 4: Flammable solids; substances liable to spontaneous combustion and substances that on contact with water emit flammable gases.
Class 5: Oxidizing substances; organic peroxides.
Class 6: Poisonous (toxic) and infectious substances.
Class 7: Radioactive materials and prescribed substances within the meaning of the Atomic Energy Control Act (Canada).
Class 8: Corrosives.
Class 9: Miscellaneous products, substances or organisms that are considered by the Lieutenant Governor in Council to be dangerous to life, health, property or the environment when transported and are prescribed to be included in this class.

Provides authority to inspectors to ensure proper handling and transportation is carried out (ss. 6-10)

A person who has the charge, management or control of dangerous goods discharged, emitted from or escaped from any container, packaging or vehicle must report the discharge in the manner specified in the regulations. Such person must also, as soon as possible, take all reasonable emergency measures consistent with public safety to repair or remedy a dangerous condition or to reduce or mitigate danger to life, health, property or the environment that results or may reasonably be expected to result from the discharge, emission or escape (s. 21)

Who to Call

CANUTEC (in case of emergency): **1-888-226-8832 or 613-996-6666 or *666 on cell phone**

TDG Pacific Regional Office (non-emergency): **604-666-2955**

Call the Emergency Coordination Centre BC: **1-800-663-3456 (24/7)**

Penalties

A person who contravenes s. 5 of the Act is liable, on a first conviction, to a fine of up to $50,000 or imprisonment for up to 2 years, or both. On a subsequent conviction, to a fine of not more than $100,000 or imprisonment for up to 2 years, or both (s. 16(2)).

An officer, director or agent of a corporation, who directs, authorizes, assents to, acquiesces in or participates in the commission of an offence, is a party to and guilty of the offence and is liable on conviction to the punishment provided for the offence, whether or not the corporation has been prosecuted or convicted. (s. 19)
The defence of due diligence is available – must ensure that the employee or agent, if applicable, that committed the offence (whether or not identified in the offence) took all reasonable measures to prevent its commission (ss. 17 & 18).
Transport of Dangerous Goods Act

2.1.1 Transport of Dangerous Goods Regulation
TDG

Substantially adopts the safety requirements and standards of the federal Transportation of Dangerous Goods Regulation (s. 3).

Transport of Dangerous Goods Regulation

2.2 Environmental Management Act (EMA)

The EMA is the principal environmental statute in BC. For reference only, amendments that received royal assent on November 8, 2023 (Bill 29) largely focus on the decommissioning and closure of responsible persons for specified facilities.

Key Provisions/Violations

Regulates the introduction of waste into the environment. (Definitions in s. 1)

- "Waste" includes air contaminants, litter, effluent, refuse, biomedical waste, hazardous, and any other prescribed substance
- "Environment" means air, land, water and all other external conditions or influences under which humans, animals and plants live or are developed
- "Hazardous waste" has the meaning prescribed by regulation.

Prohibits the introduction of waste into the environment:

- A person must not, except in accordance with a permit, approval, order, regulation, or waste management plan approved by the minister (s. 6):
  - Introduce or cause or allow to be introduced to the environment in the course of conducting a "prescribed industry trade or business" (activities and operations for the storage or handling of coal and fertilizers "product storage – bulk solids" is a prescribed industry, as set out by the Waste Discharge Regulation, s. 2(1));
  - introduce or cause or allow to be introduced into the environment, waste produced by a "prescribed activity or operation"; or
  - introduce waste into the environment in such a manner or quantity as to cause pollution.
- A person who produces, stores, or otherwise deals with hazardous waste must keep the hazardous waste confined in accordance with the regulations and must not release hazardous waste from the confinement except as expressly authorized (by a permit, order, etc.) (s. 7)

Governs waste management facilities. Establishes liability for contaminated sites. Regulates all aspects of waste management including recycling and sewage treatment/control.

Includes regulations to address storage and disposal of hazardous wastes, spill reporting and fuel management.

- Requirement to report escape, spill, or introduction of a polluting substance or waste into the environment unless allowed or authorized by the Act or bylaw for control of air contaminants in Greater Vancouver (s. 79(5)). A "polluting substance" includes any substance that, in the opinion of the minister, is capable of causing pollution if it were to be spilled/escaped into the air or and land/body of water. (s. 79(1)).

Who to call

Call the Emergency Coordination Centre BC: **1-800-663-3456 (24/7)**

Note: The BC Ministry of Environment & Climate Change Strategy has indicated that reports should be made to Emergency Management BC regardless of whether reports are also made to Transport Canada and/or the Coast Guard.

Penalties

A person who contravenes a requirement respecting emissions, transporting hazardous waste, or spill response commits an offence and is liable on conviction to a fine of up to $200,000 or imprisonment of up to six months, or both (s. 120(2).

A person who fails to ensure actions necessary to address the threat or hazard created by a spill are taken or fails to meet requirements in connection with an approved recovery plan commits an offence and is liable on conviction to a fine of up to $300,000 or imprisonment for a term of up to six months, or both (s. 120(21)).

Employees, officers, directors or agents of a corporation who authorized, permitted or acquiesced in the offence commits the offence whether or not the corporation is convicted (s. 121)

If an offence continues for more than one day, separate fines may be imposed for each day that the offence continues (s. 122)

Environmental Management Act

2.2.1 Contaminated Sites Regulation

EMA

Provides guidance on assessing, managing, and disposing contaminated groundwater and soil.

Establishes a detailed regime for the identification, determination and remediation of contaminated sites and the allocation of liability for remediation.

Stage 13 amendments are summarised here (changes to the current process for identifying contaminated sites, effective February 1, 2021):

Site remediation - Province of British Columbia (gov.bc.ca)

Stage 14 amendments are summarised here (changes to soil relocation, effective March 1, 2023.):

Legislation and Protocols - Province of British Columbia (gov.bc.ca)

Protocol 19 For Contaminated Sites – Site Investigation and Reporting (specifies requirements for site investigation, analysis and interpretation, and assessment for soil relocation. Lays out the requirements for how assessments of uncontaminated soil will be conducted. The changes are expected to affect most redevelopment sites with soil excavation and removal).

The soil relocation amendments are also designed to help streamline the legal regime, making the process clearer and more transparent and improve the ministry's ability to carry out compliance verification and enforcement. Soil Relocation Intentions paper is found here: Regulating Soil Relocation Intentions Paper (gov.bc.ca)

The new soil relocation regime imposes different obligations depending on whether the soil is being relocated from a "specified industrial or commercial use" site prescribed under Schedule 2 of the CSR (a Schedule 2 Site) or being relocated from non-Schedule 2 sites. Of specific relevance to NBT, Schedule 2 uses include the following:

Chemical Industries and Activities

fertilizer manufacturing, bulk storage or shipping

Mining, milling or related industries and activities are or near land surface

coal or lignite mining, milling, bulk storage or shipping

For soil originating from a Schedule 2 Site, unless an exemption applies (see s. 42), notification must be provided to the Ministry for any relocation of 30 or more cubic metres of non-waste soil from a source site (s. 40). Non-waste soil (see Protocol 19) is soil (s. 1(1)) with substance concentrations less than the CSR soil and vapour standards applicable at the receiving site (s. 40) (see section 55 of the EMA).

The Soil Relocation Notification Form is Schedule 8 to the CSR and is appended to these guidelines at Appendix C.

Offsite disposal of soil (non-waste or waste) to a location outside of BC or on federal crown land (other than a reserve under the Indian Act) does not fall under BC provincial regulation. Any notification, permission, or restrictions for soil relocation would fall under the regulatory requirements put in place by the Federal entity responsible for the receiving site.

Penalties

A person who contravenes section 3.2 (1), (2) or (3), 3.4, 46 (1), 46.1 (1) or (7), 57 (1) or (1.2), 59 (1) or 60.1 of the Contaminated Sites Regulation is liable to an administrative penalty not exceeding $40,000 (Administrative Penalties (Environmental Management Act) Regulation, s. 22)

Contaminated Sites Regulation

2.2.2 Hazardous Waste Regulation

EMA

Requirements for handling, storage and disposal of hazardous wastes generated on site including waste oil, batteries and used sorbents.

Part 6 sets out requirements for managing specific hazardous wastes (also see s. 41 – waste oil and s. 42 – waste paint).

Includes requirements to register wastes that exceed storage volume/mass limits within a 30-day period (s. 43)

Administrative requirements include proper generation and retention of waste manifests/bills of lading (s. 5).

Hazardous Waste Regulation

2.2.3 Manual for Completing BC's Hazardous Waste Manifests and Supplementary Forms

This document contains a step-by-step guide to completing the BC Hazardous Waste Manifest and supplementary forms, outlining the documentation required by consignors, carriers, and consignees. See also latest revision of NBT Hazardous Waste Disposal Procedure (PRO-NBT-150529_09-900-6-026).

Training manual contains roles for those who handle hazardous waste government by the EMA (see section 2.2 of this Table) & BC Hazardous Waste Regulation (see section 2.2.2 of this Table).

Manual for Completing BC's Hazardous Waste Manifests and Supplementary Forms

2.2.4 Municipal Wastewater Regulation

EMA

Establishes municipal effluent quality requirements (s. 3, Parts 5-7).

Applies to all discharges to ground (if the discharge is equal to or exceeds maximum daily flows of 22.7 m^3/day and is from a sewerage system or combination of sewerage systems that serve structures on one or more parcels or strata lots or on a shared interest) and to water (s. 4)

Municipal Wastewater Regulation

2.2.5 Ozone Depleting Substances and Other Halocarbons Regulation

EMA

Regulates the use, purchase, servicing, and disposal of halocarbons and ozone depleting substances.

Use only certified contractors to service units

Ozone Depleting Substances and Other Halocarbons Regulation

2.2.6 Permit and Approval Fees and Charges Regulation

EMA

A person applying for a permit and a permit holder applying for a permit amendment must pay an application fee of $400 at the time the application is submitted (s. 2).

Permit and Approval Fees and Charges Regulation

2.2.7 Public Notification Regulation

EMA

Guides public notification requirements for new permits, minor/major permit amendments and operational certificates (administered by Metro Vancouver).

Form and manner of application set out in s. 2. Posting and public notice requirements set out in ss. 5-6.

Minor amendments refer to changes, including those to an authorized quantity of discharge/emission/stored material that does not exceed 10% of the total authorized quantity (s. 1(2)). Minor operational certificate amendments refer to changes, including a change in the authorized quality of the discharge/emission/stored material that has or will have an equal or lesser impact on the environment.

In practice, the requirements for minor and significant amendments are very similar.

Public Notification Regulation

2.2.8 Spill Preparedness, Response and Recovery Regulation

EMA

Regulated persons are required to develop and test spill contingency plans. Under the regulation, regulated persons include rail, pipeline, and highway transporters of liquid petroleum products. Rail or highway transporters in possession, charge, or control of 10,000 litres or more of liquid petroleum products would be a regulated person. A pipeline transporting any quantity of liquid petroleum products is a regulated person.

A responsible person may be ordered to prepare a recovery plan in relation to a spill under s. 91.2(4) of EMA. If such an order is made, the plan must contain the information listed in s. 6 of the Spill Preparedness, Response and Recovery Regulation. Requirements to retain records are set out in ss. 9-11.

Penalties

A person who contravenes section 6, 9, 10 or 11 of the Spill Preparedness, Response and Recovery Regulation is liable to an administrative penalty not exceeding $10,000 (Administrative Penalties (Environmental Management Act) Regulation, s. 37.2).

Spill Preparedness, Response and Recovery Regulation

2.2.9 Spill Reporting Regulation

EMA

Key Violations/Provisions

Establishes reportable levels for certain hazardous substances (see Schedule), such as 100L for waste oil. Requirement to report spill applies to a person who has possession, charge or control of a substance or thing when a spill of the substance or thing occurs or is at imminent risk of occurring (s. 91.1 of EMA).

"Spill" means the introduction into the environment, not authorized under the EMA, of a substance or thing that has the potential to cause adverse effects to the environment, human health or infrastructure. A spill is reportable when it is of a substance listed in Column 1 of the Schedule if the spill has entered or is likely to enter a body of water, or the quantity of the substance spilled is, or is likely to be, equal to or greater than the quantity listed in Column 2 of the Schedule opposite that substance.

Who to call / report requirements

- Initial report: Such person shall immediately report the spill to the Emergency Management BC, by telephoning **1-800-663-3456 (s. 4(1)).**
- Updates to minister: A person must submit written updates to the minister until the emergency response completion date (s. 5). The "emergency response completion date" is the date on which all of the criteria listed in s. 8 are met.
- End-of-spill report: A person must submit a written report on the spill to the minister within 30 days after the emergency response completion date. (s. 6).
- Lessons-learned report: A director may order the responsible person to submit this additional report within 6 months after the emergency response completion date. (s. 7).

The responsible person must ensure that persons with the skills, resources and equipment necessary to properly deal with the spill arrive at the relevant sites and implement an incident command system in accordance with the regulations. (s. 91.2, EMA)

Penalties

A person who contravenes section 4(1) of the Spill Reporting Regulation (failing to make an initial report) is liable to an administrative penalty not exceeding $75,000 (Administrative Penalties (Environmental Management Act) Regulation, s. 37.3(1)).

A person who contravenes section 7 (3) of the Spill Reporting Regulation is liable to an administrative penalty not exceeding $40,000 (Administrative Penalties (Environmental Management Act) Regulation, s. 37.3(2)).

A person who contravenes section 4 (2), 5 or 6 of the Spill Reporting Regulation is liable to an administrative penalty not exceeding $10,000 (Administrative Penalties (Environmental Management Act) Regulations. 37.3(3)).

Spill Reporting Regulation

2.2.10 Spill Contingency Planning Regulation

EMA

Regulated persons (as defined under the Spill Preparedness, Response and Recovery Regulation) are required to produce, develop, and maintain spill contingency plans based on a worst-case scenario spill. Before preparing the plan, the regulated person must ensure that investigations, tests, and surveys are undertaken to determine the magnitude of the risk to the environment, human health, and infrastructure resulting from a spill. Regulated pipeline and railway transporters must have a contingency plan ready by April 30, 2018; highway transporters (trucking) must have a contingency plan ready by October 30, 2018.

Spill Contingency Planning Regulation

2.2.11 Waste Discharge Regulation

EMA

Lists industries which are prohibited from discharging waste into the environment.

- activities and operations for the storage or handling of coal and fertilizers ("product storage – bulk solids") is a prescribed industry (s. 2(1))

Prescribes the activities which may operate under a Code of Practice, as well as those which must have a permit.

Waste Discharge Regulation

2.2.12 Permit PE-06898

EMA

Permit PE-06898 authorizes NBT to "discharge effluent to water from a bulk loading and storage facility" into Burrard Inlet.

The effluent, from management of bulk coal, is treated to remove fine particles. The effluent is required to meet all the parameters set out in the discharge permit (primarily total suspended solids, toxicity, and maximum daily flow). Testing and reporting of test results is routinely required.

- Max authorized rate of discharge is 12,000 cubic metres per day
- TSS: 50mg/L, maximum
- Fish bioassay (rainbow trout) LT50, 96 hours, minimum

Issued March 7, 1986. Lasted amended February 3, 2004

Permit PE-06898

2.2.13 Permit PE 109531

EMA

Per Permit PE-109531 authorizes NBT to "discharge effluent to Burrard Inlet from a potash handling facility".

The effluent is required to meet all the parameters set out in the discharge permit. Monitoring, testing and reporting is routinely required.

- pH: Maximum (8.5 pH units) & Minimum (6.5 pH units)
- Total Suspended Solids: Maximum (25 mg/L)
- Total Cadmium: Maximum (0.00012 mg/L)
- Total Copper: Maximum (0.003 mg/L)
- Total Mercury: Maximum (0.002 mg/L)
- Total Zinc: Maximum (0.055 mg/L)
- Total Nickel: Maximum (0.0008 mg/L)
- Polycyclic Aromatic Hydrocarbons (PAHs): Maximum (0.05 mg/L)
- 96-h Single Concentration Acute Toxicity (Fish): Minimum (50% survival in 100% effluent concentration)

Issued July 6, 2022

Permit PE-109531

2.3 Emergency and Disaster Management Act

On November 8, 2023, the Emergency and Disaster Management Act came into force, replacing the Emergency Program Act. The Act includes four phases of emergency management: mitigation, preparation, response and recovery and provides direction on responses to emergencies. On July 8, 2024, new regulations were introduced. The requirement to complete risk assessments, emergency management plans and business opportunity plans are targeted for 2026. Ports are not currently prescribed critical infrastructure under the Act. See general information here:

https://www2.gov.bc.ca/gov/content/safety/emergency-management/emergency-management/legislation-and-regulations/modernizing-epa#next

A list of key components that are now functional and key components (grouped by topic) that will become effective after regulations are made can be found here (last updated August 2024): https://www2.gov.bc.ca/assets/gov/public-safety-and-emergency-services/emergency-preparedness-response-recovery/embc/legislation/edma_coming_into_force_primer.pdf

Emergency and Disaster Management Act

2.4 Public Health Act

Key violations/provisions

General requirement for prescribed persons to report prescribed health hazards (s. 11 – see 2.4.1 and 2.4.2 below). General requirement not to willingly cause a health hazard or act in a manner that the person knows, or ought to know, will cause a health hazard (s. 15).

Who to Call

Vancouver Coastal Health Authority

- After Hours On-Call/Emergencies #: 604-527-4893
- Chief Medical Health Officer: Dr. Patricia Daly, 604-675-3900
- North Shore: Dr. Alexandra Choi, 604-983-6700

Penalties

For a contravention of s. 15, a fine not exceeding $3,000,000 or imprisonment for a term not exceeding 36 months, or both (s. 108(c)).

An employee, an officer, a director or an agent of the corporation who authorized, permitted or acquiesced in the offence commits the offence (s. 100(1)).

Public Health Act

2.4.1 Reporting Information Affecting Public Health Regulation

Public Health Act

In addition to satisfying the requirements of the EMA, a person who causes or permits the discharge into land, water or air of a substance that is a health hazard or hazardous agent must (a) promptly report to a medical health officer in person or orally, (b) notify again to a medical health officer in writing and (b) take immediate action to stop the discharge, remove and mitigate all hazardous effects and prevent all further hazardous effects (s. 7).

Reporting Information Affecting Public Health Regulation

2.4.2 Sewerage System Regulation

Public Health Act

The following are prescribed as health hazards (s. 2.1):

- (a) the discharge of domestic sewage or effluent into (i) a source of drinking water, as defined by the Drinking Water Protection Act, (ii) surface water, or (iii) tidal waters;
- (b) the discharge of domestic sewage or effluent onto land;
- (c) the discharge of domestic sewage or effluent into a sewerage system that, in the opinion of a health officer, is not capable of containing or treating domestic sewage;
- (d) the proposed construction or maintenance of a sewerage system that, if constructed or maintained in accordance with the plans and specifications filed under section 8 or the maintenance plan filed under section 9, may in the opinion of a health officer cause a health hazard.

Sewerage System Regulation

2.4.3 BC Guidelines for Industry Emergency Response Plans

Public Health Act

These guidelines have been developed pursuant to section 12 of the EMA, which pertains to spill prevention and reporting. The guidelines identify principal components of a response plan for the purposes of industry developing consistent ERPs in cooperation with the provincial and local governments. Users have the responsibility of judging the extent that the guidelines apply to their specific situation.

For reference purposes only.

BC Guidelines for Industry Emergency Response Plans

2.4.4 BC Inland Oil Spill Response Plan

Public Health Act

Defines the scope and structure of the provincial government's involvement when responding to a major inland spill stemming from incidents such as a tank-farm rupture, train derailment or vehicle accident. The plan is intended to operate concurrently with the plans of other responding jurisdictions and companies.

For reference purposes only.

BC Inland Oil Spill Response Plan

2.4.5 BC Marine Oil Spill Response Plan

Public Health Act

Defines the scope and structure of the provincial government's involvement when responding to a major marine oil spill from a vessel, oil terminal or any other source. The plan is intended to operate concurrently with the plans of other responding jurisdictions and companies.

For reference purposes only.

BC Marine Oil Spill Response Plan

2.4.6 BC Hazardous Material Response Plan

Public Health Act

Defines the scope and structure of the provincial government's involvement when responding to a significant release of hazardous material. The plan is intended to operate concurrently with the plans of other responding jurisdictions and companies.

For reference purposes only.

BC Hazardous Material Response Plan

2.5 Environmental Assessment Act (EAA)

Requires EA certificates for "reviewable projects" prior to commencement (including water management projects such as dams and shoreline modifications).

The environmental assessment (EA) process is for industrial and resource projects in BC, which require project notifications, early engagement and increased public participation including indigenous involvement and timelines dictating when certain steps throughout the EA process. Indigenous involvement can help achieve consensus with affected Indigenous nations, allowing Indigenous nations to identify which project assessments they wish to participate in.

Environmental Assessment Act

2.5.1 Environmental Assessment Fees Regulation

EAA

Sets out fees for EA applications and other filings under the EAA. Last amended April 2020.

Environmental Assessment Fees Regulation

2.5.2 Reviewable Projects Regulation

EAA

Provides for a broad range of major projects to be automatically reviewable if they meet certain thresholds, such as area or production volume. Updates are outlined in the Environmental Assessment Revitalization process.

Reviewable Projects Regulation

2.6 Water Sustainability Act (WSA)

The purpose of this Act is to create a scheme for licensing the diversion and use of water in British Columbia and to protect water resources

Key Violations/ Provisions

Provides for the allocation and management of surface and ground water by authorizing issuance of water licences (extraction) (s. 9) and approvals (diversions) (s. 10) to broader initiatives for water management plans.

Prohibition on introducing foreign matter into a stream (s. 46).

Prohibition on introducing foreign matter into a well (s. 59).

Who to call

BC Ministry of Environment & Climate Change Strategy's Conservation Officer Hotline: 1-877-952-7277 (24/7)

Penalties

In the case of an offence that is not a continuing offence, a fine of not more than $200,000 or imprisonment for not longer than 6 months, or both. In the case of a continuing offence, a fine of not more than $200,000 for each day the offence is continued or imprisonment for not longer than 6 months, or both (s. 106(6)).

An employee, officer, director or agent of the corporation who authorized, permitted or acquiesced in the offence commits the offence whether or not the corporation is prosecuted for the offence (s. 111)

Water Sustainability Act

2.6.1 Groundwater Protection Regulation

WSA

Establishes standards to protect groundwater supplies by requiring all water wells in BC to be properly constructed, maintained, and, at the end of their service, properly deactivated and ultimately closed. The regulation applies to the production well on site.

Latest updates include additions and/or edits to text under:

- Sections 8 & 10 – certification of qualifications for well drillers and well pump installers must be issued by SkilledTradesBC under the Skilled Trades BC Act

Groundwater Protection Regulation

2.6.2 Water Sustainability Regulation

WSA

Governs applications for water licences (s. 3), use approvals (s. 3), change approvals (s. 4), drilling authorizations (s. 5), sensitive streams, changes in and about a stream (Part 3), short-term diversion or use of water (Part 4) and instructions for storm sewer outfall construction, maintenance and use (s. 39) Latest changes include:

- Edits to text in Section 1 – Definitions, under “Part 1 — Interpretation”.

Water Sustainability Regulation

2.6.3 Water Sustainability Fees, Rentals and Charges Tariff Regulation

WSA

Governs application fees for water licenses, use approvals, change approvals, drilling authorizations etc. (Part 2)

Water Sustainability Fees, Rentals and Charges Tariff Regulation

2.6.4 BC Water Quality Guidelines

WSA

Water quality guidelines are used to:

- Protect water values, including: aquatic life, wildlife, drinking water sources, agriculture (livestock watering and irrigation); and recreation
- inform water quality assessments
- support resource management decisions
- provide the basis for water quality objectives
- report on the state of water quality
- promote water stewardship

See most guideline summary report:

- BC Approved Water Quality Guidelines: Aquatic Life, Wildlife and Agriculture – Guideline Summary (August 2024)

See approved water quality guidelines and guideline technical reports:

- BC Water Quality Guidelines

Guidelines for zinc, antimony, lead and working water were updated in 2024.

2.6.5 Burrard Inlet Water Quality Objectives

WSA

Represents a collaborative effort led by Tsleil-Waututh Nation and Ministry of Environment and Climate Change Strategy (ENV) to inform water quality management and protect the water values associated with the marine waters of Burrard Inlet and its freshwater tributaries.

NBT is a participant in updating the Burrard Inlet Water Quality Objectives.

New BC Approval Water Quality Guidelines: Aquatic Life, Wildlife and Agriculture were released:

- Guideline Summary – August 2024

See the Burrard Inlet WQOs for more information on existing objectives:

- Burrard Inlet Water Quality Objectives

2.7 Drinking Water Protection Act, SBC 2001, c 9

Key Provisions/Violations

Includes a prohibition on the introduction of anything into a drinking water source, a well recharge zone or an area adjacent to a drinking water source, if the introduction will result or is likely to result in a drinking water health hazard in relation to a domestic water system (s. 23(1)).

Who to Call

Note there is a requirement to report a health hazard to the drinking water officer (s. 24). Contact for North Shore drinking water officer: 604-983-6793

Penalties

Any person who contravenes the Act is liable. Penalties under the Act include: (a) in the case of an offence that is not a continuing offence, a fine of not more than $200,000 or imprisonment for not longer than 12 months, or both; (b) in the case of a continuing offence, a fine of not more than $200,000 for each day the offence is continued or imprisonment for not longer than 12 months, or both (s. 45(2)). The time limit for prosecuting an offence is 2 years after a drinking water officer becomes aware of the facts underlying the alleged offence (s. 45(6)).

2.8 Workers Compensation Act (WCA)

Part III governs Occupational Health and Safety, including accident reporting and investigation.

Note that the federal Hazardous Products Act and Hazardous Products Regulations, which apply to suppliers, define which materials (i.e., hazardous products) are included in the Workplace Hazardous Materials Information System (WHMIS) and set out what information suppliers must provide to employers for controlled products used in the workplace.

Pursuant to section 111 of the WCA, WorkSafeBC administers the requirements, and enforces federal requirements on suppliers, of Canada's Hazardous Products Act.

Latest updates include (since version in force between November 24, 2022 – March 29, 2023):

- Additions/edits to the following Sections:
  - Section 1 – Definitions, under “Part 1”, “Division 1 — Interpretation”.
  - “Division 8.1— Licensing in Relation to Asbestos Abatement”.

Changes in the maximum administrative penalties in sections 94 & 95.

Workers Compensation Act

2.8.1 Occupational Health and Safety Regulation
WCA

Includes provisions respecting workplace inspections, correction of unsafe conditions, emergency preparedness and response, storing or handling material, occupational environment requirements, workplace hazardous materials information system, hazardous wastes, and emissions etc.

NBT to monitor the Health and Safety Regulations for any changes with potential to impact operations.

Latest updates include (since version in force between August 30, 2022 – March 7, 2023):

- Edits/additions to the following:
  - Section 14.16.1 (definition of misadventure)
  - Section 14.49.1 (communication between equipment operators)
  - Section 14.84.1 (overlapping operating zones)
  - Section 19.24.1 (minimum approach distance when working close to exposed electrical equipment and conductors)
- The following has been repealed:
  - Section 14.39 (contact with loads and structures)
  - Figure 26-1 (positioning guidelines for mobile yarders)

Occupational Health and Safety Regulation

3 METRO VANCOUVER BYLAWS, GUIDELINES AND PERMITS

3.1 Ambient Air Quality Objectives

Guides Metro Vancouver’s air quality management decisions. In particular, they are typically used to: assess and provide context to current or historical air quality and trends; guide decisions on the permitting of new or modified facilities; guide decisions on episode management, such as air quality advisories; develop long-term air quality management strategies and evaluate progress; and aid in the development of new regulatory and non-regulatory initiatives.

Metro Vancouver is considering a lower NO2 objective for 2025. These changes are expected to have minimal impact on the Neptune operations.

See: Metro Vancouver Ambient Air Quality Objectives (last updated January 2020)

Ambient Air Quality Objectives

3.2 Air Quality Management Bylaw No. 1082, 2008 & No. 1308, 2020 (last amended May 29, 2020)

Key Provisions/Violations

Specifies the nature and quantity of air emissions from large emitters of air contaminants.

This Bylaw applies to air emissions from (s. 4):

- industries, trades and businesses whether or not they are prescribed under the Environmental Management Act or its regulations.
- activities and operations whether or not they are prescribed in the Environmental Management Act or its regulations.
- industries, trades, businesses, activities, operations and residences whether or not they are described in subsection 6(5) of the Environmental Management Act.

Who to Call

GVRD Air Quality complaints line: 604-436-6777 (24/7)

Penalties

A person, corporation, or corporate officer who contravenes the bylaw commits and offence and is liable to a fine not exceeding $1,000,000 (GVRD Air Quality Management Bylaw No 1082, 2008, s. 46).

Air Quality Management Bylaw No. 1082, 2008

Air Quality Management Bylaw 1308, 2020 - Amends Bylaw 1082, 2008

Air Quality Management Bylaw 1082, 2008 - Unofficial Consolidation

3.3 Air Quality Management Fees Regulation Bylaw 1330, 2021 & 1373, 2023 (last amended November 24, 2023)

Specifies fees in relation to air quality management and permits. Amendments to the definition of global warming potential and non-photoreactive volatile organic compounds were made in November 2023.

See Table 5 for air contaminant emission rates for authorized discharges in 2025

See Table 6 for air contaminant emission rates for authorized discharges in 2026

See Table 7 for air contaminant emission rates for authorized discharges in 2027

See Table 8 for air contaminant emission rates for authorized discharges in 2028

Air Quality Management Fees Regulation Bylaw 1330, 2021
Metro Vancouver Regional District Air Quality Management Fees Regulation Amendment Bylaw No. 1373, 2023
Air Quality Management Fees Regulation Bylaw 1330, 2021 - Unofficial Consolidation

3.4 Non-Road Diesel Engine Emission Regulation Bylaw 1329, 2021 & 1337, 2021 (last amended January 28, 2022)

Key Provisions/Violations

Prohibition on discharge of any air contaminant into the environment from a non-road diesel engine except in accordance with this bylaw (s. 7).

Tier 0 and Tier 1 non-road diesel engine operators must comply with the registration and labelling requirements (ss. 15 & 23).

Low-use engines operators must have a functioning non-resettable hour meter, and comply with registration, quarterly reporting and other requirements (ss. 24-28)

Prohibition on the operation of a non-road diesel engine if the discharge of air contaminants from that non-road diesel engine exceeds 20% opacity (s. 53).

Prohibition on non-road diesel engine for more than five consecutive minutes (s.54), unless it meets one of the criteria in s. 55.

Who to Call

GVRD Air Quality complaints line: 604-436-6777 (24/7)

Penalties

A person, corporation, or corporate officer who contravenes the bylaw commits and offence and is liable to a fine not exceeding $200,000 (GVRD Non-Road Diesel Engine Emission Regulation Bylaw No. 1161, 2012, s. 60).
Non-Road Diesel Engine Emission Regulation Bylaw No. 1329, 2021
Non-Road Diesel Engine Emission Regulation Amending Bylaw No. 1337, 2021

Non-Road Diesel Engine Emission Regulation Bylaw 1329, 2021 - Unofficial Consolidation

3.5 Sewer Use Bylaw No. 299, 2007 (last amended July 28, 2023)

Key Violations/Provisions

Regulates the use of sewers (for waste disposal) within Metro Vancouver.

Prohibits discharge of Prohibited Waste into a sewer or sewage facility (s. 3.1). “Prohibited Waste” includes flammable or explosive waste, waste capable of obstructing or interfering with the operation of a sewer or sewage facility, waste causing air pollution, high temperature creating waste, radioactive waste, biomedical waste, specified risk material for bovine spongiform encephalopathy and hazardous waste.

Prohibits discharge of any Waste that may be or become a safety hazard into a sewer or sewage facility (s. 3.2). “Waste” means any substance whether gaseous, liquid or solid, that is discharged or discarded, directly or indirectly, to a Sewer or Sewage Facility.

Who to Call

Metro Vancouver Sewers Department: 604-643-8488 (24/7) and RegulationEnforcement@metrovancouver.org for inquiries.

Penalties

Fines of up to $10,000. Each day constitutes a separate offence. (s. 13)

Sewer Use Bylaw No. 299, 2007

3.6 Greater Vancouver Sewerage and Drainage District Bylaw No. 379, 2024 A Bylaw to Establish the Tipping Fee and Solid Waste Disposal Regulation

Prohibits the operation of a waste disposal or storage facility without a valid license. Licensing for the storage of wastes within Metro Vancouver (including waste oil), if exceeding specifications, are outlined in the EMA.

Includes scales of charges and fees payable by waste generators, and/or other persons who use the services of a waste hauler to dispose of waste at Metro Vancouver waste disposal facilities, based on the quantity, volume, and type or composition of the waste generated. Also outlines restrictions and prohibitions for the types of wastes that may be disposed of at such facilities.

Greater Vancouver Sewerage and Drainage District Bylaw No. 379, 2024

3.7 Noise Regulation Bylaw, 7188 (last amended May 30, 2022)

Key Violations/Provisions

Different sound levels (in dBAs) are permitted according to whether an area is a quiet zone or an activity zone, and whether it is day (7 am – 8 pm on weekdays or Saturdays and 9 am – 8 pm on Sundays and holidays) or night (ss. 3-5).

Penalties

Any person who contravenes a section of the bylaw, causes, consents to , allows or permits an act or thing to be done contrary to the bylaw, neglects or refrains from doing anything required by a provision of the bylaw, or fails to comply with nay order, direction or notice commits and offence and is liable to a fine of not less than $1,000 and not more than $50,000 for every instance that an offence occurs or each day that it continues, plus the cost of prosecution (s. 11). Potential fines and late payment fees are set out in the table in s. 13.

Note for reference only. District of North Vancouver bylaws do not apply to NBT.

Noise Regulation Bylaw 7188

3.8 Integrated Stormwater Management Plan

DNV is developing an Integrated Stormwater Management Plan to guide how to manage stormwater, with the goal of balancing land use with environmental concerns.
For more information, see:
https://www.dnv.org/community-environment/integrated-stormwater-management-plan

3.9 Water Discharge Permit No. SC-100002-NSSA

NBT discharges wastewater from scrubbers, wash down and runoff to sanitary sewer. This wastewater requires treatment to reduce suspended and dissolved dry bulk materials, oil, and grease. The discharge is required to meet all the parameters set out in the permit. The permit calls for routine testing and reporting of test results.

Water Discharge Permit No. SC-100002-NSSA

3.10 Air Quality Management Permit No. GVA0081

NBT has several emission points where dust control is required to meet specific discharge permit requirements, notably particulate matter concentrations and opacity %. These points must be tested, and test results need to be reported per the permit timelines.

Emission points where dust control is required include:

The coal system: dumper stack scrubber; surge bin transfer points on conveyors; ship loading, and the stacking/reclaiming storage piles where dust control is required.

Note: Emission Source No. 24 (i.e., enclosed rotary dumper handling coal discharging through one stack) expires on **August 15, 2035.**

The dry bulk system: scrubbers at conveyor stacks; surge bins and transfer points; ship loading; dumper building; and scrubbers at stacks at ship loaders.

The (inbound) system: ship offloading hoppers; conveyor transfer points; storage building and load-out building.

This permit was last amended on September 23, 2016. The planned projects for the Berth 2 Shiploader replacement and Dumper 2 Replacement there may be some adjustments required to the air permit at a future date.

Air Quality Management Permit No. GVA0081

4 CITY OF NORTH VANCOUVER BYLAWS

4.1 Stream and Drainage System Protection, 2003, Bylaw No. 7541 (Last amended Oct 19, 2020)

Key violations/provisions

Prohibits fouling, obstruction or impeding of a stream or drainage system within the city limits of North Vancouver (s. 4).

Regulates land development planning, design, and construction to maintain an "open stream" policy, whereby streams remain above ground and any necessary enclosures are designed to be fish-passable, where applicable (s. 5.1).

Requirement for any person undertaking any activity to place, store, transport, or dispose of any "prohibited substance" in such a manner, and in accordance with good engineering practices, so as to prevent the likely escape of the materials into the "drainage system" (s. 6).

Requires sediment control plans during construction work (s. 7.1).

Who to Call

City of North Vancouver sewers:

- For small spills, call CNV reception: 604-985-7761
- For large spills (e.g. flammable liquids over 100L, flammable gas over 10 kg), c Call the Emergency Management Centre BC: **1-800-663-3456 (24/7)**

Fines of up to $10,000 or imprisonment for not more than 6 months, or both for contravening any provision of the bylaw. Each day constitutes a separate offence (s.10)

Stream and Drainage System Protection Bylaw, 2003, No. 7541

4.2 Noise Control Bylaw, 2021, No. 8885 (adopted November 15, 2021)

Key Provisions/Violations

Regulates and prohibits the making or causing of noises or sounds which disturb or tend to disturb, the quiet, peace, rest, enjoyment, comfort, or convenience of the neighbourhood, or persons in the vicinity.

Outlines the process for application for exemption for the purposes of construction and events (Part 4)

Noise restrictions:

- Construction noise is permitted only between 7am and 8pm on weekdays and between 9am and 5pm on Saturdays (s. 4.4(b))
- Construction activity is prohibited on holidays (s. 4.4(c))
- Different sound levels are permitted for garden and building maintenance equipment between 7am and 8pm on weekdays; and between 9am and 7pm on Saturdays, Sundays, and public holidays (s. 4.5)
- Vehicle horns should be used only for the of giving an audible warning for safety purposes (s. 4.3).

Penalties

Every Person who contravenes any provision of this Bylaw is considered to have committed an offence against this Bylaw and is liable on summary conviction, to a fine or to imprisonment for not more than 6 months or to both a fine and imprisonment, to a maximum of $50,000, and each day that such a violation is caused, or allowed to continue, constitutes a separate and continuing offence. (s. 8.2)

Noise Control Bylaw, 2021, No. 8885

4.3 Nuisance Abatement, 1986, Bylaw No. 5659 (last amended November 2, 2009)

Key Provisions/Violations

Prohibits the accumulation of rubbish or noxious or unwholesome matter around their premises (s. 3(a)).

Prohibits owners/occupiers of real property from allowing their property to become or to remain untidy or unsightly (s. 3(c))

Prohibits owners/occupiers of buildings from causing or permitting pigeons or other birds to perch, roost or nest on them and from feeding pigeons or other birds on their property (s. 3(d))

Prohibits the use of construction lighting except as authorized and permitted by the Municipality (s. 3(e)).

Requires manufacturers and processors to dispose of metal and other waste not collected by the Municipality (s. 4).

Penalties

Any person who is guilty of an infraction of this Bylaw is liable to a fine and penalty of not less than $500 nor more than $2,000 and to the cost of prosecution (s. 8(b)).

Nuisance Abatement Bylaw, 1986, No. 5659

4.4 Sewerage and Drainage Utility Bylaw, 1995, No. 6746 (last amended December 11, 2023)

Key Provisions/Violations

Provides for the operation and management of a sewerage and drainage utility. Regulates construction flood levels. Pertains primarily to wastewater management on the NBT site.

- Requirement for Owner to ensure that the sanitary waste flowing into the City's sanitary sewer collection system from the customer's private service pipe conforms to the quality of sanitary waste as defined in the regulations pursuant to the Greater Vancouver Sewer and Drainage District Act governing the admission of wastes into sanitary sewers (s. 704).
- Prohibition on discharge into a storm drainage system or watercourse any domestic waste, trucked liquid waste or prohibited waste (s. 705). "Prohibited waste" is defined in Schedule D and includes Special Waste as defined by the Environmental Management Act and its regulations, air contaminant waste, flammable or explosive waste, obstructive waste, corrosive waste, high temperature waste, PCBs and pesticides, pH waste, dyes and colouring materials, waste which constitutes a health or safety hazard, and waste which causes pollution in any storm sewer, watercourse or stormwater management facility.

Penalties

Fines of up to $1,000 (Schedule E)

Sewerage and Drainage Utility Bylaw, 1995, No. 6746

5 OTHER REQUIREMENTS

5.1 Port of Vancouver, Lease No. CNV074-04298F-015 Dated 1 Jan 2010, as amended 1 Nov 2015

Section 17 of the Lease contains several environmental conditions, including prevention of contamination, waste management, performance monitoring (audits), and an indemnification in favour of the Port Authority.

Lease No. CNV074-04298F-015

5.1.1 Port of Vancouver – Project and Environmental Review Process

Applies to all proposed physical works and activities on federal lands and waters partially or wholly within the port authority's jurisdiction. The process enables the port authority to consider and make a determination on the potential environmental and other effects of proposed projects before deciding to issue a permit and requiring any related conditions.

The following application guides are current (as of January 2024):

- Category A Permit bundling (March 2020)
- Project and Environmental Review Application Guide (September 2022)
- Project and Environmental Review Categories (December 2023)

Certain works and activities do not require a project permit from Port Metro Vancouver. Excluded Projects typically include repair and maintenance activities, replacement of existing equipment, and construction/installation of small buildings and structures. See the exclusion list for more details:

- Works and Activities Exclusion List (September 2019)

The following technical guides were issued in 2023:

- Construction Outside of Regular Work Hours (March 2023)
- Environmental Noise Assessment (March 2023)
- Public Engagement (September 2023)
- Submarine Cable Guidelines (July 2023)

A full list of Port of Vancouver Application guidelines is available at:

https://www.portvancouver.com/project-and-environmental-review

5.1.2 Port of Vancouver Landside Emissions Inventory

Every 5 years, the VFPA conducts a port-wide emissions inventory to estimate air emissions from marine, rail, on-road and off-road equipment and administrative activities associated with the Port of Vancouver.

VFPA collected 2020 emissions data from its tenants in 2021. We expect the next collection will be in 2026.

Port Metro Vancouver Landside Emissions Inventory

5.1.3 Port of Vancouver Non-Road Diesel Emissions Program

Annual reporting by Port of Vancouver tenants on all non-road diesel equipment on port lands and payment of fees on older, higher emission equipment (calculated based on engine horsepower); tenants who do not have applicable non-road diesel equipment operating on port land must submit an annual declaration confirming the same.

Fees for the use of older, higher-emissions diesel equipment are assessed after tenants complete their annual report.

Annual reports for the previous year are due by January 31, and require:

- end of year hour-meter readings (or appropriate fuel/activity logs)
- new equipment and engine purchases/leases
- equipment operated by contractors during that year
- emissions reduction measures (ERMs) applied, and/or
- equipment retirements

VFPA will send invoices to tenants for the equipment operated in the previous calendar year by each March through at least 2031 (for 2030 operations).

Tenants undertaking a construction project must complete and submit a contractor construction equipment declaration.

A Non-Road Diesel Emissions fee rebate will be provided to a responsible party that demonstrates a non-road diesel engine is no longer in operation or meets specified criteria for emission reduction measures. For fees collected on engine hours operated before 1 January 2024, a rebate of up to 80% will be provided. For fees collected on engine hours operated after 1 January 2024, a rebate of up to 90% will be provided. **Deadline for rebates:** requests for rebates on any fees paid up to Dec 31, 2031, must be submitted to the port authority no later than Dec 31, 2036. T

Port of Vancouver Non-Road Diesel Emissions Program

5.2 Green Marine Environmental Program, Terminals and Shipyards

The program includes a series of levels based on environmental performance and achievements. Optionally undertaken by NBT, who is fully cognisant of the options, restrictions, and monetary costs of not segregating certain materials. Latest updates outlined in Section 5.3 below.

Green Marine Environmental Program

5.3 Green Marine Environmental Program, Self-Evaluation Guide for Terminals and Shipyards

Program participants use this document as a guide for their environmental self-assessment. Updated 2024 performance indicators for ports is available here: https://green-marine.org/media/5zmb10dh/gm_2024_summaryindicators_ports_seaway.pdf

Green Marine Environmental Program

5.4 ISO 14001 – Environmental Management Systems

ISO 14001 is the internationally recognized standard for EMS. It provides a framework for organizations to design and implement an EMS, and continually improve their environmental performance.

ISO 14001:2015 is the updated release of the International Standard (it was last reviewed and confirmed in 2021). While NBT is not seeking formal ISO 14001 certification, it has developed its EMS to be consistent with the previous standard.

ISO 14001 – Environmental Management System

APPENDIX E: INSPECTOR VISIT GUIDELINES

ENVIRONMENTAL INSPECTION/INVESTIGATION REPORT

DATE: _____

NAME OF INVESTIGATOR: _____

TITLE: _____ **BRANCH:** _____

TIME OF ARRIVAL: _____ **TIME OF DEPARTURE:** _____

PURPOSE OF VISIT:

APPLICABLE STATUTE:

ENVIRONMENTAL COUNSEL CALLED:
(if not called, give reasons):

TIME OF ARRIVAL OF COUNSEL: _____

RECORD OF VISIT:

(Note here where the inspection took place, what samples and/or documents were taken, and what persons were spoken to. Also state operation status and special or unusual circumstances. Attach additional sheets as needed.)

PERSONS ON INSPECTION/INVESTIGATION:

PHOTOS TAKEN BY CORPORATE EMPLOYEE:
(record time and location and number each)

PHOTOS TAKEN BY INSPECTOR:

SIGNED: **DATED:**

APPENDIX F: EMS CONTROLS AND MONITORING GUIDELINES FOR SEAS

A1 – POTENTIAL RELEASE OF COAL DUST FROM DUMPING OPERATION & STOCKPILES BEYOND SITE BOUNDARY.
(Operations Foremen/Operations Superintendent, Operations Manager, VPHSE)

Required Management Controls

- Moisture levels of coal trains will be checked for 'dryness' prior to reaching the dumper building so that water can be added prior to the dumping building as well as inside the building prior to emptying the railcar.
- Water will be added to conveyors (conveyor 41) as required prior to the stacker.
- Spray nozzles at the end of the stacker will be used to wet coal as required during stockpiling.
- Frequent activation of stacker water addition system during freezing weather conditions.
- Spray poles will be automatically operated around the coal piles and will be programmed to suit actual weather conditions.
- A water truck will be available at all times to spray otherwise inaccessible areas.
- Additional detail provided in Supervisor's Operating Manual.

Monitoring Method

- Maintain and compile records of maintenance and repair to dust control equipment, including water truck.
- Check that water application system is functioning at all points in the system at least 4 times per year. Both dynamic checks and static testing to be performed.
- Monitor data from five surrounding air quality monitors.

Post Operation/Incident

- Environmental Complaint Response Procedure
- Record and track dust complaints over time. Use Event Log Form
- Air Sampling/Testing Program as detailed in Permit Reporting Summary and Kerr Wood Leidal – NBT Sampling Program Summary

W7 – POTENTIAL NON-COMPLIANT CWTS DISCHARGES TO BURRARD INLET
(Operations Foremen/Operations Superintendent, Operations Manager, VPHSE

Required Management Controls

- Effluent from coal handing operations will be collected and treated prior to its release to Burrard Inlet so that in accordance with ***MOE Permit PE-6898*** (Appendix D).
- Waste Water Treatment procedures will be followed. Coagulant and flocculent will be added to wastewater.
- Initial spill response procedures will be clearly posted at potential spill sites (non-conforming effluent to Burrard Inlet).
- Samples will be collected and analyzed as required by the permit and monitor and record flow rates.
- Effluent will be checked for evidence of other contaminants and/or solids loading - if any characteristics appear to fall outside normal operating criteria, stop effluent release, and confirm effluent characteristics are suitable for discharge prior to continuing release.

Monitoring Method

- Compile and maintain records of maintenance and repair to the coal effluent treatment system, including assets listed in the maintenance list. (Ref. 4.6 – JDE Records)
- Inspection of critical components by NBT and third party of the coal effluent treatment system to verify it is operating properly weekly. (Required Tasks for 3rd party inspection).
- Check analytical results from required testing against permit requirements and standards as soon as test results are received. Undertake corrective actions immediately upon finding out about any non-compliance situation. Complete reporting as soon as possible.
- Verify training for operations staff, specifically those involved in water treatment, prior to authorizing them to work.
- Monitor data from conductivity meter.

• Detailed procedures for Waste Water Treatment are provided in EMS 4.4 CWTS O&M Manual.	Post Operation/Incident • Environmental Complaint Response Procedure • Record / track dust complaints over time. Use Event Log Form. • Sampling/Testing Program as detailed in Permit Reporting Summary and Kerr Wood Leidal – NBT Sampling Program Summary
A5 – POTENTIAL RELEASE OF DRY BULK DUST FROM SHIPLOADING AND UNLOADING BEYOND SITE BOUNDARY (Operations Foremen/Operations Superintendent, Operations Manager, VPHSE)	
Required Management Controls • Conveyors will be kept covered at all times, and cascade spouts will reach down into ship holds. • All components of dust control equipment will be maintained in good working condition. • Additional detail provided in Supervisor's Operating Manual.	Monitoring Method • Compile and maintain records of maintenance and repair to dust control equipment. • Inspect (three times per year) all components of dust and emission control equipment to verify proper operation. • Confirm scrubbers are operational prior to ship loading or unloading. • Samples will be collected and analyzed as required by the permit. • Check analytical results from required testing against permit requirements and standards as soon as test results are received. Undertake corrective actions immediately upon finding out about any non-compliance situation. Complete reporting as soon as possible. Post Operation/Incident • Environmental Complaint Response Procedure. • Record/track dust complaints over time. Use Event Log Form. • Air Sampling/Testing Program as detailed in Permit Reporting Summary and Kerr Wood Leidal – NBT Sampling Program Summary.
W8 – POTENTIAL NON-COMPLIANT DBWTS DISCHARGES TO METRO VANCOUVER SANITARY SYSTEM (Operations Foremen/Operations Superintendent, Operations Manager, VPHSE)	
Required Management Controls • Effluent from dry bulk handling operations will be collected and treated prior to its release to the sanitary sewer in accordance with Metro Vancouver Waste Discharge Permit SC-100002-NSSA (see Appendices).	Monitoring Method • Compile and maintain records of maintenance and repair to the dry bulk effluent treatment system, including assets listed in the maintenance list. (Ref.– JDE Records). • Inspection of critical components by NBT and third party of the dry bulk effluent treatment system to verify they

	are operating properly every week. (Required Tasks for 3rd party inspection). • Samples will be collected and analyzed as required by the permit and monitor and record flow rates as per permit requirements. • Check analytical results from required testing against permit requirements and standards as soon as test results are received. Undertake corrective actions immediately upon finding out about any non-compliance situation. Complete reporting as soon as possible. • Verify training for operations staff, particularly those involved in water treatment, prior to authorizing them to work in the area. Post Operation/Incident • Environmental Complaint Response Procedure. • Record and track complaints via Event Log Form. • Sampling/Testing Program as detailed in Permit Reporting Summary and Kerr Wood Leidal – NBT Sampling Program Summary.
W2 – POTENTIAL SURFACE RUN-OFF DISCHARGING TO CATCH BASINS EXCEEDING REGULATORY GUIDELINES (Operations Foremen/Superintendent, Operations Manager, VPHSE)	
Required Management Controls • Surface run off from all areas associated with storage and handling of coal and dry bulk discharge exclusively to the respective water treatment facility. • Disposal of waste products by all personnel into storm sewer catch basins is prohibited. Road, yard, and foreshore sweeping.	Monitoring Method • Annual and as required outfall sample tests. • Flood alarms on sumps. • Visual observation.
W3 – POTENTIAL BULK FUEL DISPENSING AND STORAGE SPILLS FROM REACHING BURRARD INLET (Site Personnel, Operations Foremen/Superintendent, Operations Manager, VPHSE)	
Required Management Controls • Engineering spill kits are available to operations; absorbent booms and pads are deployed to isolate storm drain(s) as required. • Shut off storm water outflow valves. • Fuel dispensing procedure NBT 09-919-6-001-05 for re-fueling NBT equipment. Double walled tanks, drip pans, oil water separators.	Monitoring Method • Storm Water Stop Valve Operation NBT 02-239-6-003 for isolating the storm outflow. • Visual observation. Post Operation/Incident • Environmental Complaint Response Procedure. • Event Log Form.

R3 – POTENTIAL RELEASE OF RESIDUAL (Coal/Dry Bulk) FROM SHIPLOADERS TO BURRARD INLET (Operations Foremen/Superintendent, Operations Manager, VPHSE)	
Required Management Controls • Slow down of operations. • System PMs, e.g., scrapers • Semi-automatic application of dust suppressant during coal loading. • Shiploading SOPs	Monitoring Method • Visual observation. • Verify training for operations staff, particularly those involved in loading operations, prior to authorizing them to work in the area. Post Operation/Incident • Environmental Complaint Response Procedure. • Event Log Form.
A3 – POTENTIAL RELEASE OF COAL DUST FROM SHIPLOADING BEYOND PROPERTY BOUNDARY (Burrard Inlet) (Operations Foremen/Operations Superintendent, Operations Manager, VPHSE)	
Required Management Controls • Slow-down of operations • System PMs, e.g., scrapers • Semi-automatic application of dust suppressant during loading • Shiploading SOPs	Monitoring Method • Visual observation. • Verify training for operations staff, particularly those involved in loading operations, prior to authorizing them to work in the area. Post Operation/Incident • Environmental Complaint Response Procedure. Event Log Form.
A6 – POTENTIAL RELEASE OF DRY BULK DUST FROM RAIL CAR DUMPER (Site Personnel, Operations Foremen/Operations Superintendent, Operations Manager, VPHSE)	
Required Management Controls • Enclosed dumper building and aspirated conveyor transfers. • All components of dust control equipment will be maintained in good working condition. • Additional Detail Provided in Supervisor's Operating Manual.	Monitoring Method • Compile and maintain records of maintenance and repair to dust control equipment. • Inspect (three times per year) all components of dust and emission control equipment to verify proper operation. • Confirm scrubbers are operational prior to rail car unloading. • Samples will be collected and analyzed as required by the permit. • Check analytical results from required testing against permit requirements and standards as soon as test results are received. Undertake corrective actions immediately upon finding out about any non-compliance situation. Complete reporting as soon as possible.

	Post Operation/Incident • Environmental Complaint Response Procedure. • Record and track dust complaints over time. Use Event Log Form. Air Sampling/Testing Program as detailed in Permit Reporting Summary and Kerr Wood Leidal – NBT Sampling Program Summary.
W10 – POTENTIAL COAL PILE RUNOFF INFILTRATING DBWTS (Operations Foremen/Operations Superintendent, Operations Manager, VPHSE)	
Required Management Controls • Engineering spill kits are available to operates absorbent booms and pads are deployed as required. • Maintain existing physical boundary between coal pile and DB/stormwater system through PM's and operating procedures	Monitoring Method • Visual observations/monitoring. • DBWTS samples will be collected and analyzed, and the flow rates monitored and recorded as per permit requirements. • Check analytical results from required testing against DBWTS permit requirements and standards as soon as test results are received. Undertake corrective actions immediately upon finding out about any non-compliance situation. Complete reporting as soon as possible. • Verify training for operations staff, particularly those involved in water treatment, prior to authorizing their work. Post Operation/Incident • Environmental Complaint Response Procedure. • Event Log Form.

APPENDIX G: DISTRIBUTION LIST OF EMS MANUAL

COPY NUMBER	EXTERNAL HARD COPIES	LOCATION
1.	Legal Counsel	McCarthy Tetrault
2.	Envirochem	North Vancouver
3.	Operations Manager	Operations Building
4.	Maintenance Manager	Operations Building
5.	VPHSE	Operations Building
6.	Head Foremen	Operations Building
7.	Administrative Office	Central Files
8.	Guard/Site Security	Guard House

APPENDIX H: REVISIONS LOG

Log of Updates for Each New Revision

REV.	DATE	PROCEDURES AND SECTIONS UPDATED
01	April 1, 2011	Updates to ToC, Sections 1-4,7,10-11, Appendices A-E
02	Sept 30, 2011	General Revision to ToC, Sections 1,3-17, Appendices A-I
03	Nov 16, 2012*	Update to Noise Aspects [App A], Formatting and spelling fixes
04	May 2013	Updates to SEAs criteria, Appendices A-I, Environmental Policy, Legal Registry, and Sections 5 & 8
	Sept 26, 2013*	Updates to Sections 7, 10, 11, 14, Appendices A-C, I5-I7
05	Dec 9, 2013	Updates to Section 6, Appendix D Legal and Other Requirements.
	Jan 24, 2014	Updates to Section 14-15
	June 25, 2014	Updates to Section 4,7,9,12 and Appendices A-D
05	Sept 17, 2014**	Update to Procedure 6,7,9,11 and Appendices A,D, I2, I4, I5
	Mar 27, 2015*	Updates to Sections 10,16 & Appendix D, all references to Vegetable Oil removed
06	May 20, 2015	Update to Appendix H
06	Nov 10, 2015	Update to Section 9
06	Dec 20, 2015	Updates to Sections 1, 3, 4, 6, 8, 9
06	March 10, 2016*	Removed Appendices I10, I11 and I12
07	March 27, 2017*	Updates to Sections 8-11,17, Appendix I10 added.
08	March 29, 2017	Updates to Appendices D,E
	June 29, 2017	Updates to Appendix I7
	Sept 14, 2017	Update to Appendix D
	Oct 26, 2017	Update to Section 16
08	Oct 26, 2017	Update to Section 1
	Dec 7, 2017	Updates to Section 4, 7
	Dec 13, 2017	Updates to Section 8, 11
	Feb 27, 2018	Updates to Section 8, Appendices D & F
	March 2018	Updates to Section 4,7-9,17, & Appendix A.
09	May 8, 2018	Updates to Aspect Table.
	June 26, 2018	Updates to Sections 3, 4, 6, 8-11, 13-15, 17, & Appendices A,F,G,I3-I4, I6-I8 & I10
	Aug 20, 2018**	Updates to Section 10 & Appendices I4,I8, I10

09	Nov 7, 2018	Updates to Appendices I6-I7
	Dec 2018	Updates to Appendices D, I2, I10 & J.
	Jan 23, 2019	Updates to Section 2.
10	June 27, 2019	Updates to Section 2-3
	July 2, 2019	Update to Sec 1.2
	Aug 1, 2019	Updates to Sections 9 & 16
	Dec 23, 2019	Conversion to new NBT Document Standard, general formatting & minor editing. Revisions as per input from McCarthy, Envirochem, & Superintendents. Updated Emergency Contact List, Spill Response Flow Chart, and Site Map.
	Feb 7, 2020*	Reviewed by DEP. Minor revisions. Issued for circulation.
11	Jan 13, 2021**	Revisions as per McCarthy, SLR, Envirochem and NBT reviews/comments. Minor formatting changes. Reviewed by DEP.
12	Dec 23, 2021**	Revisions as per input from Envirochem & McCarthy, Blackbird and SLR Audits.
	January 2022	Updates to Complaint Flowchart, Environmental Policy, Contact List, Excavated Soils Management Procedure, & minor wording updates / formatting.
	February 2022	Revision of Section 11, link updates, formatting, addition to Appendix D, incorporation of comments, & updated site maps.
	March 21, 2022	Reviewed by VPMP. Minor revisions. Issued for circulation.
13	July 8, 2022	Updates to Section 1.9 & Appendix D
	Dec 2022/Jan 2023	Annual review - Appendix D update, wording/formatting updates throughout.
14	Jan 2024**	Annual review - Appendix D update, wording/formatting updates throughout.
	May/Jun 2024	Updates to Spill Response Diagram / Instructions, Emergency Contact List
	Oct 2024** to Apr 2025*	Appendix D legal review and update. General review with updates and minor changes. Contact list update.

* Reviewed by VP of Health, Safety and Environment

** Revisions made by Legal Counsel

APPENDIX I: SUPPORTING DOCUMENTS TO EMS MANUAL

I-1 Audit Action Item Priority Ranking System

	Rev. Priority Scoring >>>	PRIORITY 1	PRIORITY 2	PRIORITY 3	PRIORITY 4	PRIORITY 5	PRIORITY 6	PRIORITY 7	PRIORITY 8	PRIORITY 9	PRIORITY 10
		HIGH RISK		MODERATE RISK			LOW RISK		APPROACHING EXCELLENCE		
	General Descriptors >>>	Environmental conditions pose a significant risk to one of the risk areas as described below	Environmental conditions pose a significant risk to one of the risk areas as described below	Environmental conditions pose a moderate risk to one of the risk areas as described below	Environmental conditions pose a moderate risk to one of the risk areas as described below	Environmental conditions pose a moderate risk to one of the risk areas as described below	Environmental conditions pose a low risk to one of the risk areas as described below	Environmental conditions pose a low risk to one of the risk areas as described below	**Mature** -EMS fully implemented and driving continual improvement	**Leader** - comprehensive sustainability management	**Innovator** -competitive advantage through sustainable business practice
	Audit Finding Type>>>	**Audit Findings are related to Non-Compliance and / or Due Diligence**							**Audit Findings are related to Opportunities for Improvement (i.e. beyond compliance and due diligence)**		**No Audit Findings**
RISK AREAS	Environmental	Poor environmental performance. Significant impact to environment likely, and urgent and immediate remedial action is required. (e.g. Significant uncontrolled reportable release beyond containment or control (e.g., hydrocarbon or canola oil release to Inlet). Also potential for long term impact over a large area	Poor environmental performance. Potential imminent release of reportable volume or repeated exceedance of permit limit (e.g., losses to Inlet or sewer) requiring immediate action. Also potential for short or long term impact over a confined area	Environmental performance indicates moderate deviation from meeting standard industrial practice and/or regulatory requirements. Impact to environmental is potentially moderate, short term, and confined in area (e.g. Environmental performance releases failing to consistently meet mandated limits (chronic)	Environmental performance indicates moderate deviation from meeting standard industrial practice and/or regulatory requirements. Impact to environmental is potentially moderate	Environmental performance indicates minor deviation from meeting standard industrial practice and/or regulatory requirements (e.g. releases that exceed applicable or internal standards). Impact to environment is potentially moderate to moderate	Environmental performance consistent with regulatory requirements (other than administrative), and standard industrial practice. Environmental impact considered low (e.g. observed minor or potential releases causing nuisance (e.g., dust, minor hydrocarbon sheen on Inlet from parking lot or municipal storm drains)	Environmental performance consistently meeting regulatory requirements, and standard industry practice and minor deviation to internal NBT standards. Impact to environment is unlikely. Objectives and targets are set but not all met. Programs inplace to meet O&T.	Environmental performance beyond standard industrial practice and working toward meeting EMS defined objectives and targets, preventative actions vs. corrective actions. Consideration given to energy efficiency/GHG, water conservation and material efficiency.	Environmental performance meeting EMS defined objective and targets. Minimizing or eliminating footprints (carbon / GHG; water; biodiversity; energy sources). EMS fully implemented and partially integrated with health and safety and quality management systems.	Environmental performance surpasses expectations and leads to environment, social and economic benefits. (e.g. recognized national/international leader). Operation is carbon neutral through hierarchy of prevention/reduction to offset trading). EMS fully integrated with H&S and Quality System.
	Legal	Investigation with formal charges, sanctions, enforcement including fines, possible jail imminent	Potential for Investigation, Pollution Abatement Order, administrative sanctions	Potential for Investigation/inspection which culminates with issuance of a Ticket, or minor offence, agency involvement	Potential for Warning letter, possible inspection, agency involvement	Potential for advisory letter	Potential for advisory letter	n/a	n/a	n/a	n/a

	Rev. Priority Scoring >>>	PRIORITY 1	PRIORITY 2	PRIORITY 3	PRIORITY 4	PRIORITY 5	PRIORITY 6	PRIORITY 7	PRIORITY 8	PRIORITY 9	PRIORITY 10
		HIGH RISK		MODERATE RISK			LOW RISK		APPROACHING EXCELLENCE		
	General Descriptors >>>	Environmental conditions pose a significant risk to one of the risk areas as described below	Environmental conditions pose a significant risk to one of the risk areas as described below	Environmental conditions pose a moderate risk to one of the risk areas as described below	Environmental conditions pose a moderate risk to one of the risk areas as described below	Environmental conditions pose a moderate risk to one of the risk areas as described below	Environmental conditions pose a low risk to one of the risk areas as described below	Environmental conditions pose a low risk to one of the risk areas as described below	Mature -EMS fully implemented and driving continual improvement	Leader - comprehensive sustainability management	Innovator -competitive advantage through sustainable business practice
	Audit Finding Type>>>	Audit Findings are related to Non-Compliance and / or Due Diligence							Audit Findings are related to Opportunities for Improvement (i.e. beyond compliance and due diligence)		No Audit Findings
RISK AREAS	Business	Immediate shut-down	Temporary operations suspension to rectify	Could cause temporarily operations suspension to rectify	Could cause temporarily operations suspension to rectify	Unlikely to have business interruption	Unlikely to have business interruption	No business interruption	No business interruption	No business interruption	No business interruption
	Controls	No control(s) in place	Significant inadequacy in controls	Moderate inadequacy in controls. Pollution control system upsets, troubleshooting, operator error leading to non-compliance	Performance comprised by lack of maintenance leading to non-compliance	Sporadic uptime, potential non-compliance, operating conditions may lead to non-compliance	Inadequate containment for small volume liquids (totes, drums); overdue PM without performance compromise	Incomplete EMS including overdue training / documentation; ERP and supplies	Controls meet Standard Industrial Practice, procedures in place including approved contractors (analytical, handling, disposal)	Controls for BACT being developed but not fully implemented, Standard Industrial Practice meet.	BACT implemented and effective, pollution controls effective, 100% operational, PMs scheduled and 100% completed
	Public	10 or more verified complaints resulting in harm to reputation, shut-down or project delays); crisis management may be required	5-10 verified complaints (with potential threat to permit, operations)	5-10 verified complaints (with potential threat to permit, operations)	1-4 verified complaints , may require process or procedural changes	1-4 verified complaints , may require process or procedural changes	0-2 verified complaints , minimal or no changes expected	0-2 verified complaints, minimal or no changes expected	Programs in place for minor enhancement of public opinion and social license to operate. No verified complaints	Programs in place to moderately enhance public opinion and social license to operate. Positive public communication	Programs in place to significantly enhance public opinion and social license to operate. Significant positive public communication

I-2 Emergency Contact List

FIRE, AMBULANCE, POLICE	**911**
NBT SITE SECURITY	**604-985-7461**
NBT SITE FIRST AID ATTENDANT	**Site Radio Channel #1 or Local 222**

NOTE: The official NBT EMS Manual contains a list of personnel contact numbers. For privacy purposes, this version (shared publicly) contains reference to the Contact List for internal use only.

NBT PERSONNEL	
For NBT Personnel contact information, refer to:	**LIST-SITE-191105-Emergency Contacts**

Local Emergency Numbers

EXTERNAL REPORTING	See Reporting Guide at the end of Part I – Section 12.0 of the Emergency Preparedness & Response Plan (ERP). **Provincial Emergency Plan (PEP) and Environment Canada**	 1.800.663.3456
	Oil Spill into Water **Canadian Coast Guard (MCTS)**	1.800.889.8852 1.800.889.8852
	Environmental (Burrard Inlet Environmental Action Program - BIEAP), Security (threats, access issues), Marine Vessels **Port Metro Vancouver (Harbour Master Office)**	 604.665.9086
	Water and Sewerage Emergency Only Unauthorized Air Discharges and Discharges to Sewer **Metro Vancouver (Greater Vancouver Regional District)**	604.444.8401 604.436.6777 (07:30–23:30 hrs) 604.643.8488 (23:30–07:30 hrs)
	Health & Safety Emergency **WorkSafe BC Prevention Emergency Line** **Human Resources and Skills Development Canada (HRSDC)**	 604.276.3301 1.800.641.4049

SPILL RESPONSE ASSISTANCE	**Land Response** McRae's Septic Tank Service	Emergency #	604.856.8344
		Toll Free	1.888.894.4411
	Land Response CEDA Reactor Ltd.	Emergency #	604.540.4100
		Non-Emergency	604.540.4100
	Marine Response Burrard Clean Operations / WCMRC	Emergency	604.294.9116
		Non-Emergency	604.293.6001
	Vancouver Pile Driving	Emergency	604.986.5911
		Non-Emergency	604.986.5911

ADDITIONAL NOTIFICATION	**I.L.W.U. Local 500**	604.254.7131
	I.L.W.U. Local 514	604.298.9684
	CN Rail Lynn Creek Yardmaster	604.984.5638
	Cargill Terminal Security	604.990.2554
	BC Hydro Emergency Line	1.888.769.3766
	Fortis BC	1.800.663.9911
	City of North Vancouver – Sewer and Water Emergency	604.987.7155 Daytime 604.988.2212 After Hours

I-3 EMS Corrective / Preventative Action (Car/Par) Form

Number:	E.g., EMS–YYYY–##	Description:	(Refer to EMS Manual, Section 4.0)
Likelihood (1-5):		Severity (1-5):	

AREA OF ORIGIN	ORIGINATOR	SENT TO	DATE	ALSO SENT TO:
Audits		NBT VPHSE		
Non-Compliance		NBT VPHSE		
Discharge-Spill/Incident		NBT VPHSE		
Complaint		NBT VPHSE		

EVENT REPORTING	NAME/TIME/DATE	COMMENTS
Metro Vancouver		
Ministry of Environment		
Provincial Emergency Plan		
Other		

PROBLEM		
Description:		
Severity (1-5) (Ref. EMS Manual, Section 4.0)	Non-conformance (Y/N):	Opportunity for Improvement (Y/N):

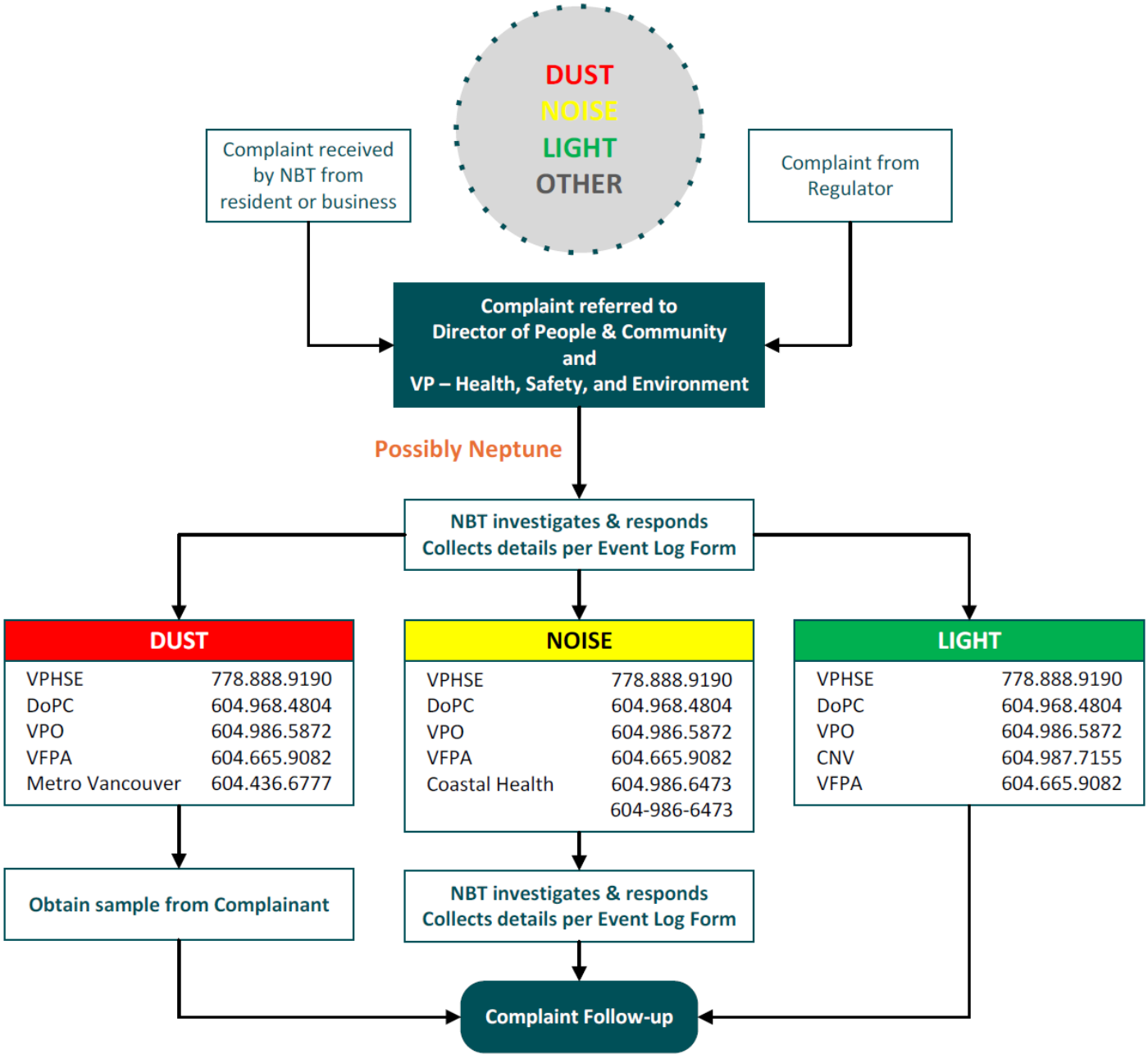
ROOT CAUSE ANALYSIS	
Investigator:	
Start Date:	
Completion Date: (max. 30 days)	
Results of Investigation: (summary or attach report)	

CORRECTIVE OR PREVENTATIVE ACTION		
Responsibility:	Start Date:	Completion Date:
Required Action (summary or attach report):		

If required, respond to Stakeholder(s):	
Response Date:	
Responsibility:	

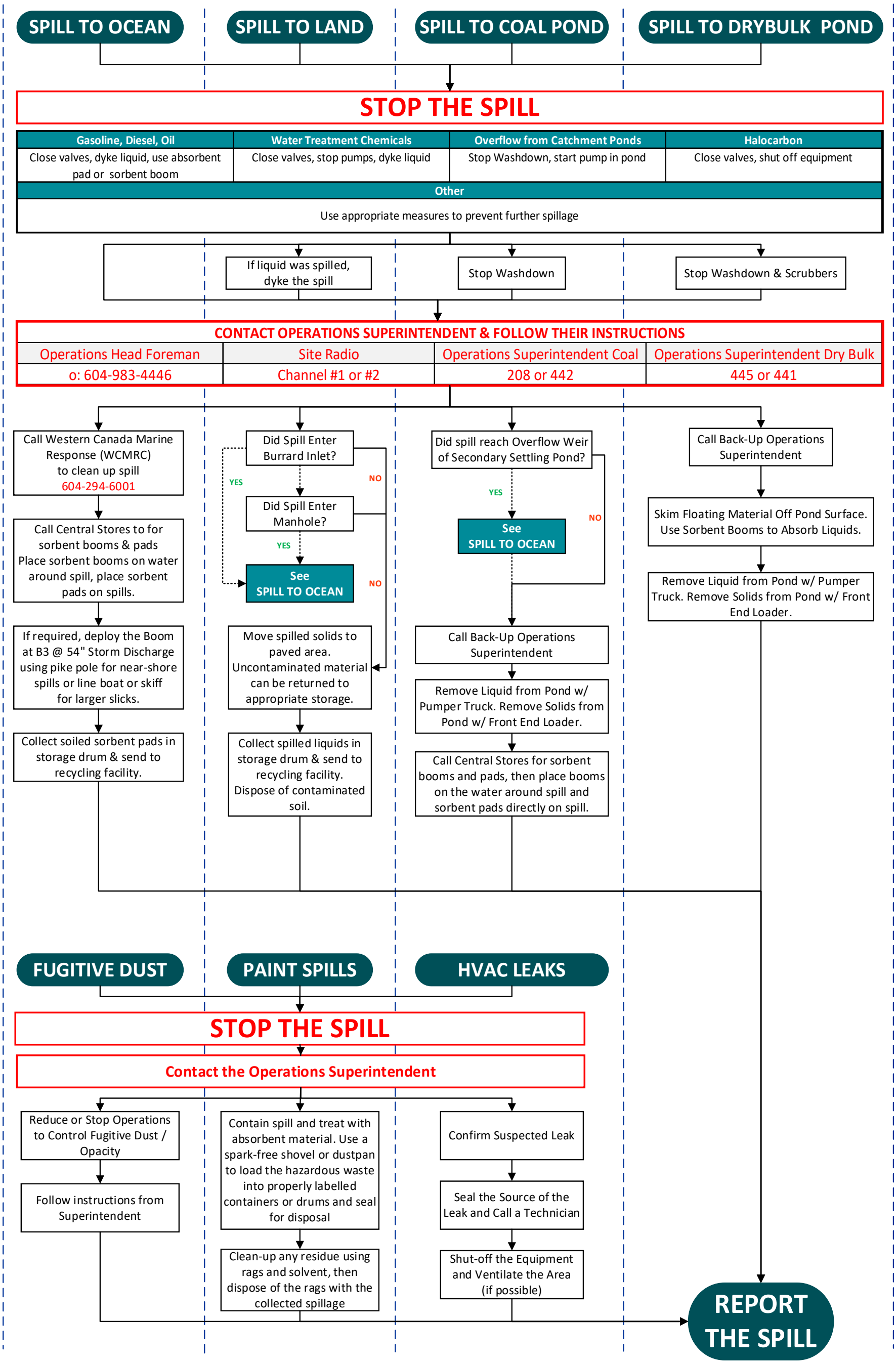
Review & Approval:		Date:	
Follow-Up Audit By: (Only If Req'd)		Date:	

I-4 Environmental Complaint Response Procedure



Note 1: CNV refers all noise complaints to the RCMP for investigation.

I-5 Spill Response Flow Chart and Instructions



REPORT THE SPILL

Initial Verbal Reporting

Only req'd if Spill exceeds the Reportable Volumes Threshold

Call Emergency Management British Columbia (EMBC)
1-800-663-3456

Caller must provide:
- Name & phone number of person reporting
- Company name and telephone number
- Location, date, & time of the spill
- Type & quantity of substance spilled
- Cause & effect of spill (if known)
- Details of clean-up procedures taken
- Description of spill location & area surrounding the spill
- Details of further actions contemplated or required
- Names of agencies at the scene
- Names of other persons or agencies informed (if applicable)

Request the Dangerous Goods Incident Report (DGIR) Number

Internal Reporting

ALWAYS REQUIRED

Notify Environmental Department,
VP-Health, Safety, & Environment, & VP-Operations

ENVIRONMENTAL SYSTEMS SPECIALISTS
Bryan Tsai – 778.952.9152 | btsai@neptuneterminals.com
Stacy Bell – 604.785.6759 | sbell@neptuneterminals.com

ENVIRONMENTAL MANAGER*
Nora Romkema – 778-951-6004 | nromkema@neptuneterminals.com

VP of HEALTH, SAFETY, AND ENVIRONMENT
Brad Walker – 778.888.9190 | bwalker@neptuneterminals.com

VP of OPERATIONS
Craig Olley – 604.619.8522 | colley@neptuneterminals.com

*Submits written reporting

Written Reporting

As Required

UPDATES TO EMBC
Report to be sent 30 days after spill outlining any notable updates. Must include initial information.

LESSONS LEARNED REPORT
Only if requested by EMBC within 6 months of Emergency Response Completion. To include:
- Effectiveness of spill response Description of actions to prevent future spills.
- Improvements for spill response, incl. changes to procedures.

Mandatory

END OF SPILL REPORT
Written Report to be submitted within 30 days of spill. Must include:
- Information from the initial report and updates.
- Additional details on site address and latitude / longitude of the spill location.
- Photos of the area(s) of impact.
- Description of the circumstances.
- Cause and adverse effects of the spill both to the environment and human health.
- Root cause analysis with both corrective ad preventative actions taken.
- How and where waste from the spill was disposed.
- Copies of data from reports of sampling, testing, and monitoring.
- Names of agencies/ persons on scene and advised of the spill.

Submit to: SpillReports@gov.bc.ca

COMPLIANCE REPORTING
Permit requirements to notify the ministry of spills and/or bypasses. NBT-specific spill/ separate reporting requirements within the permit for NBT's facility, which may require the submission of an immediate notification and a follow-up report. Submit to:
EnvironmentalCompliance@gov.bc.ca

ANNUAL REPORTING
Summary of all incidents from the year with explanations on Corrective actions & preventative measures against future spills.
Submit to:
EnvAuthorizationsReporting@gov.ba.ca

I-6 Reportable Volumes for Spills to the Environment

Reportable volumes noted in the table below are the thresholds for reporting to regulators. All spills, regardless of volume, must be reported internally at NBT via Compass.

NO.	FLUID	ACTIVE INGREDIENT(S)	PACKAGING	SPILL THRESHOLD NOTES 3, 4, 5 & 6		POSSIBLE LOCATIONS
				SPILL TO AIR AND/OR LAND	SPILL TO WATER	
1	Deleterious Substance Note 1	Any	None	N/A	Zero Tolerance (any amount)	Burrard Inlet
2	"Listed substance" Note 2	Any	Various	"Listed quantity" Notes 3 & 4	Zero Tolerance (any amount)	Burrard Inlet
3	Antifreeze (Class 3)	Ethanol (more than 24%) 2-propanol Methanol Methyl isobutyl ketone	205 Litre Drum	100 L	Zero Tolerance (any amount)	Heavy Duty Shop
4	R-134A, R-22, R- 410 A (Class 2.2)	Refrigerant	Unit reservoirs	10 kg	Zero Tolerance (any amount)	HVAC Units
5	Gasoline or Diesel Fuel (Class 3)	Fuel	Tanks	100 L	Zero Tolerance (any amount)	Mobile Equipment
6	Varsol (Class 3)	Nonane (Mineral Spirits)	205 Litre Drum	100 L	Zero Tolerance (any amount)	Lube Shed
7	Waste Oil Note 5	Oil	5000 Litre Drum	100 L	Zero Tolerance (any amount)	Lube Shed Tank
8	New Oil (e.g., Automatic Transmission Fluid, XD3 0W – 40 Oil, Essa Trans 30 Oil, Univis Bio 40 Oil, Mobilgear SGC – 150 Oil) Note 5	Oil	205 Litre Drum to 2400 Litre Totes	200 L	Zero Tolerance (any amount)	Lube Shed
9	New Fluid Film Liquid A Note 5	Oil	205 Litre Drum	200 L	Zero Tolerance (any amount)	Stores
10	Used Fluid Film Liquid A Note 5	Oil	205 Litre Drum	100 L	Zero Tolerance (any amount)	Lube Shed
11	Soil-Cement (Class 3)	Acrylic and Vinyl Acetate polymer	1000 Litre Tote	100 L	Zero Tolerance (any amount)	Near Gas Fueling Station
12	Aerosol Paint (Class 2.1)	Light Hydrocarbons	12 to 16 oz cans	10 kg	Zero Tolerance (any amount)	Stores
13	Flammable Paint (Class 3)	Solvents	Open Pail, etc.	100 L	Zero Tolerance (any amount)	Outside Construction
14	Corrosive Resins (Class 8)	Epoxy Resin	500 ml to 38 L containers	5 kg or 5 L	Zero Tolerance (any amount)	Stores
15	Lead Acid Battery (Class 8)	Lead and Sulphuric Acid	Size of battery	5 kg or 5 L	Zero Tolerance (any amount)	Stores
16	Lithium Ion / Metal Batteries (Class 9)	Lithium	Size of battery	25 kg or 25 L	Zero Tolerance (any amount)	Stores
17	Caustic Soda 25% (Class 8)	Sodium Hydroxide	Tote	5 kg or 5 L	Zero Tolerance (any amount)	CWTS and Purification Pond (TP10)
18	Envirobind PCW and 834F	Soap + tackifier agent	Tote or Tank	200 kg or 200 L	Zero Tolerance (any amount)	Empty Coal Cars and Coal Barge
19	Coal Note 1	None	Bulk	200 kg	Zero Tolerance (any amount)	Shiploaders
20	Potash Note 1	None	Bulk	200 kg	Zero Tolerance (any amount)	Shiploaders

Note 1: Per *Fisheries Act:* A deleterious substance is "any substance that, if added to any water, would degrade, alter, or form part of a process of degradation or alteration of the quality of that water so that it is rendered or is likely to be rendered deleterious to fish or fish habitat or to the use by [humans] of fish that frequent that water." Almost any substance may be considered deleterious, including silt, coal dust, potash dust, petroleum products, heavy metals, effluents, cleaning supplies, paint, chlorinated water, sediments, suspended solids, water that has been subjected to a treatment, process or change, and cooling water.

Note 2: Refers to *Column 1 – Substances,* items 1 to 24 of the Schedule at the end of the BC *Spill Reporting Regulation*. These substances may include, but are not limited to, dangerous goods from Class 1 to Class 9 of the Federal Tr*ansportation of Dangerous Goods Regulations* and hazardous wastes as defined in the BC *Hazardous Waste Regulation*: such as waste oil, PCBs, and leachable toxic waste, or other substances which can cause pollution or are deleterious as described in Note 1.

Note 3: Refers to *Column 2 – Quantity* of the Schedule at the end of *BC Spill Reporting Regulation*. If the substance spilled is not listed in Table I-6 above, check *Column 1 – Substances* to determine the reportable volume threshold. Depending on the substance, reportable quantities of spills to air and/or land range from 1 kg/L to 200 kg/L.

Note 4: The listed reportable volumes do not apply to spills within the confines of the Coal Water Treatment System (CWTS) or Dry Bulk Water Treatment System (DBWTS) catchment area, nor inside any storage sheds or buildings, unless there is a risk of the spill reaching the environment (water, land or air outside of the CWTS or DBWTS catchment areas), i.e., via storm drains.

Note 5: There is a different reporting threshold for new oils versus waste oils. Waste oils are defined in the BC *Hazardous Waste Regulation* as automotive lubricating oil, cutting oil, fuel oil, gear oil, hydraulic oil or any other refined petroleum based oil or synthetic oil where the oils are in the waste in a total concentration greater than 3% by weight and the oils through use, storage or handling have become unsuitable for their original purpose due to the presence of impurities or loss of original properties.

Note 6: Spill thresholds are based on the definition of deleterious substance in the *Fisheries Act,* the Federal *Transportation of Dangerous Goods Regulations*, the BC *Hazardous Waste Regulation* and the BC *Spill Reporting Regulation*, as amended or replaced from time to time. The spill thresholds listed in Table I-6 are current as of August 2024.

INSTRUCTION 1 – STOP THE SPILL

Gasoline, Diesel, Oil

Close valves, dyke liquid, etc.

Overflow from Catchment Ponds

Stop wash down, start pump in pond, etc.

Water Treatment Chemicals

Close valves, stop pumps, dyke liquid, etc.

Other

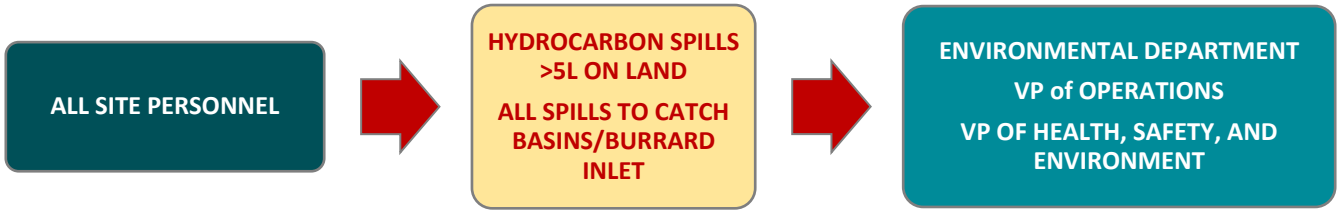
Use appropriate measures to prevent further spillage.

INSTRUCTION 2 – REPORT THE SPILL INTERNALLY

NORMAL WORKING HOURS		
OPERATIONS SUPERINTENDENTS		
Coal Superintendent	Site Radio – Channel #1	o. 604-983-4446 ext. 208 or 442 c. 604-841-8373
Potash / Dry Bulk	Site Radio – Channel #4 / #5	o. 604-983-4446 ext. 445 or 441 c. 604-243-1953
AFTER HOURS		
Operations Head Foreman	Site Radio – Channel #1	o. 604-983-4446 c. 604-968-4787

IMPORTANT:

All site personnel are **required** to notify the Environmental Department, VP of Operations and VP of Health, Safety, and Environment on all hydrocarbon spills greater than 5 liters on land and any spills, regardless of the quantity, to any catch basins or directly to the Burrard Inlet. Notification to be sent via email at minimum.



SENIOR ENVIRONMENTAL SYSTEMS SPECIALIST
Stacy Bell
o. 604.983.4433 | c. [redacted]
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ENVIRONMENTAL MANAGER
Nora Romkema
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VP of HEALTH, SAFETY, AND ENVIRONMENT (VPHSE)
Brad Walker
c. [redacted]
bwalker@neptuneterminals.com

VP of OPERATIONS
Dave Foy
c. [redacted]
dfoy@neptuneterminals.com

INSTRUCTION 3 – SPILLS TO OCEAN

Call Central Stores (604-983-4446 ext. 258) for sorbent booms and sorbent pads, place sorbent booms on water in Burrard Inlet around spill, place sorbent pads on spill.

If any amount of coal or potash spills into ocean, call Western Canada Marine Response Corporation and continue to deploy sorbent booms and pads. If required, deploy NBT's Ocean Boom using a pike pole for near shore containment or the closest line boat or skiff to encircle a larger slick.

For spills of any solid product shipped or received at NBT:

1. Call Western Canada Marine Response Corporation to clean up any and all floating, spilled coal fines. Emergency Line: 604-294-9116
2. Call Vancouver Pile Driving Ltd. to recover coal suspended in the water column and settled on the seabed. Office: 604-986-5911

INSTRUCTION 4 – REPORTABLE LIMITS

Spills to environment must be reported if larger than:

MATERIAL	AMOUNTS	
	TO SURFACES OR STORM DRAIN	TO BURRARD INLET
Gasoline, Diesel, Motor Oil	100 Litres	Any amount
Water Treatment Chemicals (CarboNet CK-181 Coagulant and CarboNet CE-633 Flocculent)	5 kg or 5 L for CK-181	Any amount
Bulk Material (Coal, Potash, Etc.)	200 kg or 200 litres (if spill is due to equipment failure)	Any amount
Deleterious Substance	Any amount	
Other	Refer to Appendix I7 or consult B.C. Spill Reporting Regulation and Material Safety Data Sheet – SDS	

For more serious events, contact Internal Legal Counsel immediately after determining that an environmental spill requires reporting, without delaying the reporting process.

INSTRUCTION 5 – EXTERNAL REPORTING

Initial Verbal Reporting

Call Telephone Number: 1-800-663-3456 to report to Emergency Management British Columbia (EMBC).

Give the following information:

- name and telephone number of person reporting spill
- company name and telephone number
- location, date, and time of the spill*
- type and quantity of substance spilled
- cause and effect of spill, if known
- details of clean-up procedures taken*

- description of the spill location and area surrounding the spill
- details of further actions contemplated or required
- the names of agencies at the scene
- the names of other persons or agencies advised concerning the spill

*minimum key facts

Request the EMBC report number, as assigned by EMBC to the reported event.

*** FOLLOW-UP WRITTEN REPORTS** (see the BC Spill Response Regulation for full details)

Written reports must be prepared ad submitted to EMBC as follows:

- **UPDATES TO EMBC** – as soon as practicable, or at least 30 after the date the spill, a written report must be submitted. It must include the initial information provided to EMBC.
- **END OF SPILL REPORT** – within 30 days of the emergency response completion, a written report must be submitted including:
  - Information from the initial report and updates.
  - Additional details on site address and latitude / longitude of the spill location.
  - Photos of the area(s) of impact.
  - Description of the circumstances.
  - Cause and adverse effects of the spill both to the environment and human health.
  - Root cause analysis with both corrective ad preventative actions taken.
  - How and where waste from the spill was disposed.
  - Copies of data from reports of sampling, testing, and monitoring.
  - Names of agencies/ persons on scene and advised of the spill.

  End of Spill Reports are mandatory under the spill regulation and can be sent to SpillReports@gov.bc.ca.
- **COMPLIANCE REPORTING** – Permit requirements to notify the ministry of spills and/or bypasses. NBT-specific spill/separate reporting requirements within the permit for NBT's facility, which may require the submission of an immediate notification and a follow-up report. Both items can be submitted to EnvironmentalCompliance@gov.bc.ca.
- **LESSONS LEARNED REPORT** – only if requested by EMBC and within 6 months of the emergency response completion, a written report is submitted describing:
  - The effectiveness of the spill response actions.
  - Description of actions to prevent future spills.
  - Improvements for spill response including changes for the spill response procedures.
- **ANNUAL REPORTING** – NBT is to provide a summary of all incidents throughout the year and provide explanation on what actions were taken to correct and prevent these incidents from recurring. Annual reports can be sent to EnvAuthorizationsReporting@gov.ba.ca.

INSTRUCTION 6 – CLEAN-UP THE SPILL

Solid Spills	
Coal	Move spilled material to paved area with bobcat, or wheelbarrows, if necessary; return coal to same brand coal pile.
Dry Bulk	Use front end loaders, bobcat, or wheelbarrows to move uncontaminated material to appropriate storage shed; move contaminated material to solid waste holding area; sweep area affected by spill; do not hose down area.
Other	Follow instructions in Material Safety Data Sheet.
Liquid Spills	
Gasoline, Diesel, Motor Oil	Collect liquid in storage container (drum, tank, railcar, etc.), and send to recycling facility; dispose of contaminated soil. Water Treatment Chemicals (CarboNet Coag CE-311 and Floc CK-633) Collect uncontaminated liquid for use in chemical treatment plant; collect contaminated liquid separately and bleed into primary settling pond of coal system; dispose of contaminated soil.
Other Liquids	Follow instructions in Material Data Safety Sheet.
Floating Material	
Solid	Skim off surface.
Liquid	Skim off surface. Call central stores for sorbent booms and pads, place sorbent booms to prevent spill from flowing into next pond; place sorbent pads to absorb liquid
All Spills	Remove liquid from pond with pumper truck, remove solids from pond with front-end loader; place solids on paved surface.

INSTRUCTION 7 – SPILLS TO SANITARY SEWER

Report any spills to Sanitary Sewer to Metro Vancouver:

AFTER HOURS		
Metro Vancouver (GVRD) Spills to Sanitary Sewer	General Number for Reporting 24-hr	ph. 604-436-6777 ph. 604-643-8488

Provide the following information:

- Name and phone number of person reporting.
- Company name and telephone number.
- Location and time of the spill.
- Type and quantity of substance spilled.
- Cause and effect of spill.
- Details of cleanup procedures taken.
- Description of the spill location and area surrounding the spill.
- Details of further actions contemplated or required.
- The names of agencies at the scene.
- The names of other persons or agencies advised concerning the spill.

INSTRUCTION 8 – REFRIGERANT LEAKS

How to Confirm Refrigerant Leak:	• Use a Halogen H10 Leak Detector to locate the general source area. • Apply Leak Detection Soap Bubbles to pin-point leak location. • Visually identify drips and/or puddles around the leak location. • Listen for hissing noises as gas escapes the mechanical system.
Notes:	• Smell must not be relied upon to locate the source of any leaks. • Under no circumstances should anyone enter an area where a flammable concentration of refrigerant exists; shut off the system if possible and contact a qualified technician to perform the emergency work.
How to Seal Refrigerant Leak:	• Tighten any loose hardware (e.g., Sight glass, fittings). • Small leaks can be temporarily sealed with tape until a technician can perform a more permanent solution. • Use a temperature resistant bonding adhesive to seal the opening./
Notes:	• Always wear the appropriate PPE for dealing with refrigerant leak: eye protection, protective gloves, a breathing apparatus with the correct filter, and a type 1 chemical protective suit for more serious gas leaks.

INSTRUCTION 9 – HALOCARBON RELEASES

Halocarbon releases of more than 10 kg but less than 100 kg, are to be reported to the minister in written or electronic format. Reports must contain the following information, as set out in column 3 of item 8 of Schedule 2 of the Federal Halocarbon Regulations, 2003 (SOR/2003-289):

- name and address of owner of system;
- type and quantity of halocarbon released;
- date of release;
- type and description of system; and
- circumstances leading to the release, corrective action and actions to prevent subsequent releases.

Reports to be submitted twice annually, not later than 30 days after January 1 and July 1. In the event of a halocarbon release of 100 kg or more, the following reports are to be submitted to the Minister:

Time Period	Report Description
Within 24 hours after the release	A verbal, written or electronic format report indicating the name of the owner, the type of halocarbon released, and the type of system, container or equipment is to be submitted.
Within 14 days after the release	A verbal, written or electronic format report indicating the name of the owner, the type of halocarbon released, and the type of system, container or equipment is to be submitted.

CONTACT INFORMATION FOR REPORTING RELEASES OF HALOCARBONS	
Emergency Number (verbal reporting):	1-800-663-3456
Mailing Address (written reporting):	Regional Director | Environmental Enforcement Division Environment and Climate Change Canada 201-401 Burrard Street (4th floor) Vancouver BC V6C 3S5 Fax: 604-666-9059 | ec.pydalerfh-pyeedfhr.ec@Canada.ca
Regional contacts for the Federal Halocarbon Regulations, 2003	Steve Arrell Ph: 867-393-6847 | ec.rfhprocomrpy-fhrcompropyr.ec@Canada.ca

INSTRUCTION 11 – PAINT SPILLS

Stop a Paint Spill:

- Plug the leak (if possible).
- Upright any overturned containers.
- Block the path of the spillage to stormwater drainage and waterways using containment booms or sandbags.
- Contain and absorb the spill with inert, absorbent materials.

Paint Spill Clean-Up:

- Once contained and treated with absorbent material, use a spark-free shovel or dustpan to load the hazardous waste into properly labelled containers or drums and seal for disposal.
- For very minor spills, paper towels can be used if immediately placed in a solvent waste bin.
- Paper towels or rags should not be used for larger spills as they do not prevent further evaporation.
- Clean-up any spillage residue using rags and solvent, then dispose of the rags with the collected spillage.
- Paint spill waste is considered hazardous and must be disposed of in accordance with BC Hazardous Waste Regulation (B.C. Reg. 63/88 amended by 63/2009) HWR Sec. 43.
- Ensure to wash hands and all other areas that may have been exposed to the spilled material.

Paint Spill Reporting:

- Refer to Table I6 – Reportable Volumes for Spills to the Environment.
- If the spill exceeds the threshold, follow the reporting steps outlined in Instruction 5.
- If contamination of sewers or waterways has occurred, call 1-800-663-3456 to report to Emergency Management British Columbia (EMBC).

I-7 Spill / Event Report Form

INCIDENT INFORMATION:	
Date of Incident:	Investigation Team:
Time of Incident:	Name:
Date of Investigation:	Position:
PERSON REPORTING INCIDENT:	
Name:	Man #:
Job Title:	Years of Experience:

TYPE OF INCIDENT:							
☐	Fuel Spill	☐	Other Spill	☐	Water Pollution / Contamination	☐	Breach of Permit Conditions
☐	Uncontrolled Air Emission	☐	Management of Waste	☐	Explosion	☐	HVAC Release
☐	Damage to Vegetation or Fauna	☐	Excessive Noise	☐	Near Miss	☐	Other Type of Incident (please describe)
Comments:							

TYPE OF IMPACT:							
☐	Effects on Natural Environment of Land	☐	Controlled / Uncontrolled Discharges to Water	☐	Controlled and/or Uncontrolled Emissions to Air Wastes	☐	Noise, Dust, Vibration, Odour
☐	Contamination	☐	Health and Safety (i.e., any injuries)	☐	Solids and Other	☐	Other Type of Impact (please describe)
Other/Additional Comments:							

INCIDENT SPECIFICS:
Incident Location:

INCIDENT SPECIFICS (CONT'D):
Distance to nearest stream, water bodies, sensitive areas (as applicable):
Material Type:
Material Quantity:
Weather Conditions:
Cause(s) and Effect(s) of Incident:
Witness Names and Statements *(attach extra sheets if necessary)*:
Description & Estimate of Property Damage:

ITEM #	CORRECTIVE ACTION	PERSON RESPONSIBLE	TARGET DATE	COMPLETED (INITIAL)

Is this a reportable incident?	*Yes* ☐ *No* ☐	*DGIR#*	

Refer to Environmental Management System Manual – I6 Reportable Volumes Table for Spills to the Environment

Agencies contacted in the event of a reportable incident:		Notes:
	BC Spill Reporting Hotline (1-800-663-3456) ICBC (1-800-910-4222) Environment Canada (604-666-6100) Transport Canada (604-666-2955) CANUTEC [Canadian Transport Emergency Centre] (613-996-6666) Police/Fire Dept. (911) Other:	

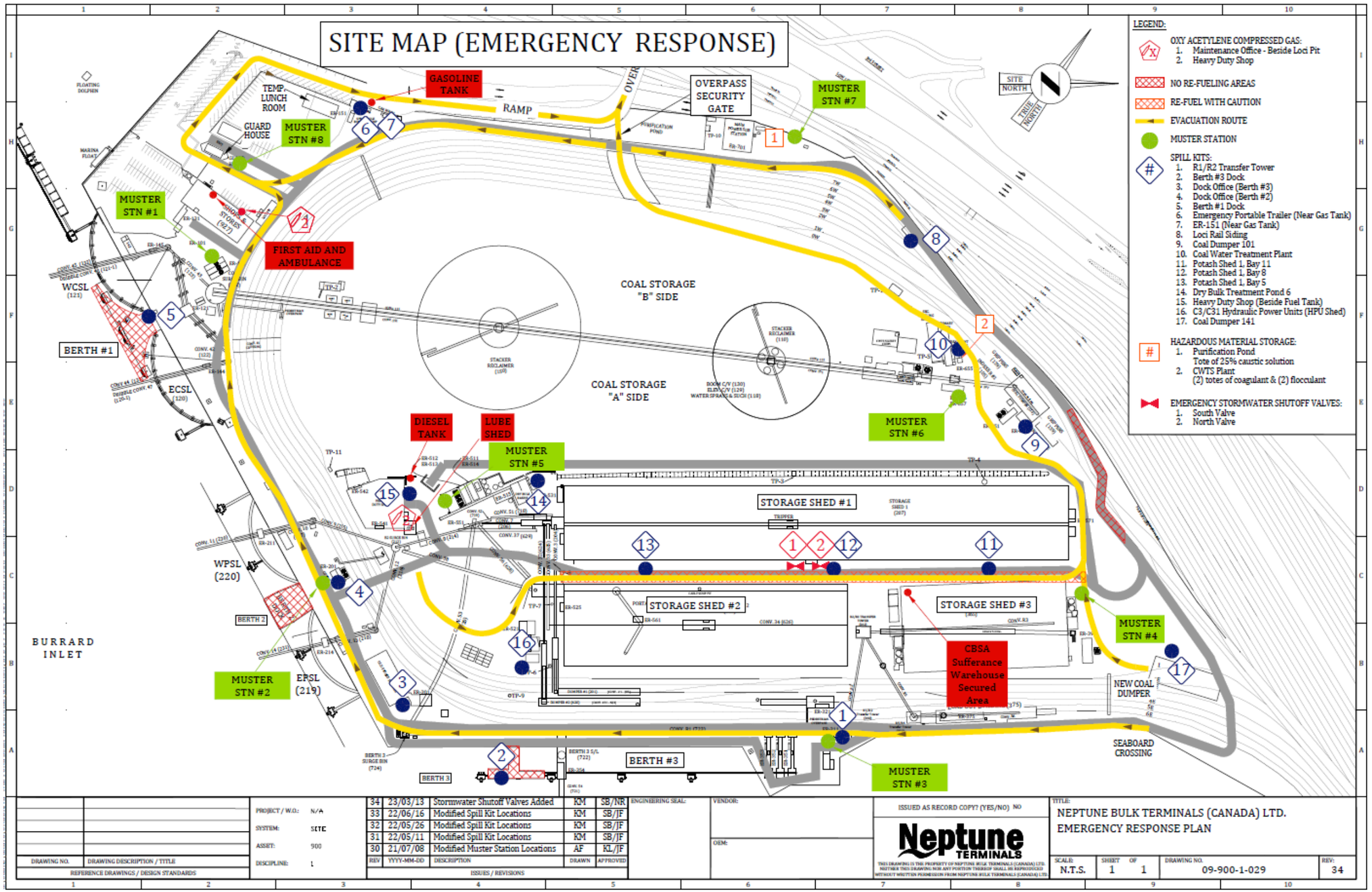
Other comments/actions taken:
Measures to be implemented to prevent/minimize this type of incident from occurring again:

Report completed by:	Phone #:
Title:	Date:

EVENT LOG FORM	
Date:	
EMS CAR/PAR Ref. #	
Event Description:	
Summary:	

DATE/TIME	DESCRIPTION

I-8 Emergency Response Site Map



I-9 Spill Kit Locations and Contents

NBT has Spill Kits located at the following (17) locations around Site:

SPILL KITS	
Number	**Location**
1	R1/R2 Transfer Tower
2	Berth #3 Dock
3	Dock Office (Berth #3)
4	Dock Office (Berth #2)
5	Berth #1 Dock
6	Emergency Portable Trailer (Near Gas Tank)
7	ER-151 (Near Gas Tank)
8	Loci Rail Siding
9	Coal Dumper 101
10	Coal Water Treatment Plant
11	Potash Shed 1, Bay 11
12	Potash Shed 1, Bay 8
13	Potash Shed 1, Bay 5
14	Dry Bulk Treatment Pond 6
15	Heavy Duty Shop (Beside Fuel Tank)
16	C3/C31 Hydraulic Power Units (HPU Shed)
17	Coal Dumper 141

ALL SPILL KITS CONTAIN THE FOLLOWING ITEMS:

- Absorbent Pads – INV 8592 – Qty. 100
- Boom Bag (4x10x8” boom section) – INV 9354 – Qty. 4
- (1) Oil Absorbent – INV 6524 – Qty. 3
- Catch Basin Cover.

If anything is missing, the item either may need to be restocked or may not be in inventory. Contact NBT’s Procurement Manager (o. 604-983-7931).

I-10 Excavated Soil Management Standard

PURPOSE

Soil contamination has been assessed on various portions of the NBT site at different times and qualitatively is not considered to present a significant threat or risk to human health or to the environment.

Soil management, both on- and off-site, is part of NBT's EMS. This standard operating practice governs sampling, handling, and disposal of excavated and delivered soil/aggregate in accordance with applicable regulations and guidance documents.

NOTE: Dredged sediment, which is deposited onto land, constitutes "soil" as defined in s. 1 of the CSR. Therefore, this Standard applies.

1. References

- BC Environmental Management Act, SBC 2003, c. 53 ("EMA")
- BC Contaminated Sites Regulation, B.C. Reg. 375/16 ("CSR Schedules 3.1 and 3.2")
- BC Hazardous Waste Regulation, B.C. Reg. 63/88 ("HWR")
- BC Ministry of Environment Technical Guidance on Contaminated Sites No. 1 "Site Characterization & Confirmation Testing"
- BC Ministry of Environment Technical Guidance on Contaminated Sites No. 20, "Applicability of Sodium and Chloride Ion Soil Relocation Standards to Dredged Marine and Estuarine Dredge Materials"
- Vancouver Fraser Port Authority Project Permit Conditions,
- General Excavated Soil Management Standard Process Flow Diagram, included as
- Figure 1 ("General Excavated Soil Management Process Flow Diagram")
- On-Site and Off-Site Soil Disposal Checklists included as Appendix A and B, respectively. ("On-site and Off-site Soil Checklists")
- Archeological Chance Find Management Procedure, NBT Site General, EMS 2.9.1.2 ("HCA")

2. Excavated Soil Protocol

See the General Excavated Soil Management Process Flow Diagram for the following possible scenarios:

Excavated Soil Returned to Same Excavation Hole
• NO classification/sampling required. • NO soil management records required. • Exception: If there is obvious visual and olfactory indication of gross contamination (e.g., petroleum hydrocarbon odors).
Excavated Soil Temporarily Stockpiled On-Site
• All soil will be placed/stored in a manner (e.g., paved/controlled surface, polyethylene liner, covered etc.) to ensure the material does not become contaminated, or further contaminated, with other materials (e.g., coal, potash, etc.)

Excavated Soil Permanently Relocated On-Site

- Classify/sample soil.
- Complete Appendix A Checklist.
- Submit all documents electronically along with the request for permission from NBT's Environmental Manager to relocate soil on-site. Must include all relevant documents listed in Section 10 and soil quality report(s) and analytical data.
- To be completed in advance of any permanent soil relocation on-site

Excavated Soil Permanently Relocated Off-Site

- All excavated soil is sampled for potential contamination and classified before leaving site.
- Soil quality concentrations exceeding CSR Schedule 3.1 Industrial Land Use (IL) standards must be deposited at a permitted waste management facility.
- All other soils may only be deposited at other NBT-approved non-permitted industrial sites or at permitted waste management facilities.
- Soils with soil quality concentrations exceeding CSR Schedule 3.1 Residential Low Density Land Use (RLLD) that are being deposited at NBT-approved non-permitted industrial sites, a Soil Relocation Notification Form must be submitted to the BC Ministry of Environment if the volume of soil is greater than 30 m3.
  - The soil quality must meet the applicable CSR Schedule 3.1 standard at the receiving site.
  - Soil vapour quality must be assessed and meet the applicable CSR Schedule 3.3 standard applicable at the receiving site, unless,
    - The soil does not contain detectable concentrations of volatile chlorinated substances listed in CSR Schedule 3.1, and
    - Analyzed parameters are less than CSR Schedule 3.1 RL_{LD} standards.
  - The Soil Relocation Notification Form must be completed and submitted by a qualified professional.
  - The Soil Relocation Notification Form must be submitted to the BC Ministry of Environment at least 7 days prior to the relocation of the soil.
- Submit all documents electronically to NBT's Environmental Manager upon completion, including all relevant documents listed in Section 10.

Excavated Hazardous Waste Soil

- Hazardous soil is to be disposed at a permitted soil remediation facility as per the BC Hazardous Waste Regulation.
- Submit all documents electronically to NBT's Environmental Manager upon completion, including all relevant documents listed in Section 10.

NBT has reviewed and updated the Excavated Soil Management Standard to meet the requirements of the Stage 14 Amendment updates of the CSR, which came into effect on March 1, 2023.

3. Delivered Soil Protocol

Soil delivered for Permanent On-site Construction must be pre-classified as IL or better in accordance with CSR land use criteria.

Soil delivered for Temporary Use (including pre-load, temporary road, crane-base, etc.) must be IL classification or better. All reasonable measures should be made to ensure that temporary soil does not become contaminated while in use (e.g., preventing contact with contaminated soils and avoiding

activities that could cause mixing of potential contaminants (i.e., contact with coal, potash, and any known contaminated soil on site).

4. Soil Transport Protocol

Excavated Soil Transport: Depending on the soil quality and receiving facility, soil manifests will be required for each truck driver for any excavated soil transported off-site. This applies to all soils being transported to a permitted waste management facility. Reference Appendix B - Off-Site Soil Disposal Checklist.

Excavated Hazardous Soil Transport: Soil is required to be transported only by designated truck drivers with the appropriate hazardous waste transport license issued by the Ministry of Environment and Climate Change Strategy. Special manifesting arrangements will need to be made.

5. Suspect Soil Protocol

Suspect Excavated Soil: If suspect material is encountered (i.e., visual or olfactory evidence of contamination, unexpected structures, etc.), the work is to cease and NBT's Environmental Manager, Contractor and/or Project Environmental Monitor notified and the material is to be set aside in a designated management area (e.g., bermed area) until it can be appropriately characterized and managed.

6. Rail Ballast Protocol

Rail Ballast Maintenance: Inspection of the ballast shoulder to be performed regularly, as the lateral stability of the track depends upon the shoulder. Ballast can be cleaned using bioremediation.

Rail Ballast Replacement: Ballast that is damaged beyond use must be replaced by qualified and experienced rail contractor.

7. Roles and Responsibilities

Construction Contractor: The Construction Contractor will review this Excavated Soil Management Standard and will be responsible for ensuring that all his or her staff and sub-contractors are compliant to this Standard prior to commencing work on site.

The Construction Contractor will be responsible for complying with this Soil Management Standard, the Port Permit and all other applicable permits, legislation, regulations, and guidance documents. The Construction Contractor will work closely and communicate with NBT personnel and/or their designated representatives as required.

Construction plans related to soil excavation must be received by NBT's Environmental Manager. NBT's Environmental Manager must be notified of the following as soon as possible:

- Pre-loading or backfilling and any task that will require excavation or soil/aggregate delivery.
- Any planned excavation that includes relocating any possibly contaminated soils.

This electronic notification is intended to provide the necessary time to meet project administrative requirements and to plan/modify any project logistics. The Construction Contractor, or designated representative, will also:

- Ensure that all soil is sampled and analyzed as required by this Standard, prior to leaving or entering the property.
- Engage qualified independent professional(s) for sampling, and qualified laborers for analysis.
- Maintain soil sampling data, related reports, and manifests etc., in the appropriate files.
- Complete to the best of his or her ability the On-Site Soil Checklist (Appendix "A") or Off-Site Soil Checklist (Appendix "B"), as the case may be.
- Coordinate Port Metro Vancouver application/requirements as required by NBT's Environmental Manager.

Environmental Monitor: The Environmental Monitor representing the Contractor is responsible for conducting periodic monitoring to ensure the Construction Contractor's activities and documents are in conformance with this Standard, the Port Permit, and all other applicable permits, legislation, regulations, and guidance documents.

The Environmental Monitor will have the authority to modify and/or halt any construction activity at any time if the monitor thinks a continued or anticipated activity could pose an immediate detrimental risk to the environment.

8. Classification of Soil per CSR

Classifications referred to in this Standard are defined in the CSR. Classifications below are listed in order of increasing acceptable contamination level. For example, "IL" classification indicates that the soil may potentially be sent for fill at sites classified as Industrial. Note however, in this Standard, "RL_{LD} or better" means RL_{LD} or a more sensitive classification (e.g., RL_{LD}, PL, or AL).

AL – Agricultural	RL_{HD} – Residential High Density
PL – Urban Park	CL – Commercial
RL_{LD} – Residential Low Density	IL – Industrial

9. Soil Sampling Procedure

Samples are collected according to the BC Ministry of Environment guidelines (e.g., BC Field Sampling Manual). A sampling plan is prepared by the independent sampler and subsequently requires approval by NBT's Environmental Manager, or their designate. It includes a schedule and the number of samples from specific locations, sampled for certain contamination by a certain laboratory. The plan considers potential contaminants, including, but not limited to:

- Benzene, toluene, ethyl benzene, and xylenes (BTEX) (e.g., to detect gasoline).
- Light extractable petroleum hydrocarbons (LEPH).
- Heavy extractable hydrocarbons (HEPH).
- Polycyclic aromatic hydrocarbons (PAHs).
- Mineral oil and grease (MO&G).
- Metals (e.g., CSR suite).
- TCLP (leachability test required by most landfills).

- Sodium ion (Na+) and chloride ion (Cl-) (e.g., from historical dredgeate backfill).
- pH.
- Others, as identified by historical review.

In accordance with the plan, samples are taken by the sampler and delivered to an NBT-engaged laboratory for analysis. Samples should be collected from locations most likely to have been contaminated and in sufficient number to adequately characterize any significant contamination. Results are then compared to Schedules 3.1 of the CSR for soil relocation and appropriate land use for the final soil destination.

In the case of above-ground sampling, cover stockpiles with tarps/poly liner to prevent potential leaching and erosion.

For soil/aggregate delivered to site, sampling is necessary if the source records do not clearly indicate to the satisfaction of NBT's Environmental Manager, that soil quality meets both:

- The land use of the NBT site "IL" (and therefore non-hazardous).
- The land use classification of the final destination of the soil/aggregate, if the planned and on-site soil usage is only temporary.

10. Analysis, Destination and Documentation

Based on a comparison of analytical results to applicable regulations as specified above, the independent sampler issues a letter/report to NBT characterizing the identified excavation materials as residential fill, commercial fill or otherwise. Additional sampling may be required to further isolate and characterize detected contamination.

- For IL classified soil (or better, such as RL_{HD} +), the Construction Contractor arranges for soil reuse, relocation, or disposal to another approved industrial site.
- Excavated soil, classified as IL+ (in excess industrial land use standards), is not acceptable for relocation anywhere on the NBT site. It must be documented and may be trucked to a registered soil remediation facility. Use only approved transportation and soil remediation facilities. Reference Appendix B – Off-Site Soil Disposal Checklist.

Only personnel with a valid TDG certificate shall sign manifests for contaminated soils classified as hazardous waste for disposal off-site. Copy #1 of each completed manifest is forwarded to NBT's Environmental Manager and Copy #2 sent to the MOE as per the BC Hazardous Waste Regulation.

11. Filing and Records

Documents to be submitted electronically based upon the type of excavation as described above.

- Soil Relocation Notification Form.
- Excavation Material Manifests.
- Excavated Soils Drawings.
- Laboratory Sampling Reports.
- Disposal Tracking Logs, Disposal Tickets and Receipts.
- Disposal Letters of Acceptance (i.e., letters of acceptance for the received material written to NBT by the disposal facility).
- Truck weigh-in records (representing acceptance of the material by the disposal facility).

- Competed On-Site Soil Checklist (Appendix A) or Off-Site Soil Checklist (Appendix B), whichever is appropriate.
- Final known or estimated volume of soil at deposit location.
- Map of excavation location and deposit location.
- Any additional relevant documentation, such as photos, etc.

Refer to STD-NBT-090916-Excavated_Soil_Management_Standard for the full document.

ESMS Appendix A – On-Site Soil Disposal Checklist

Please complete all applicable unshaded cells only.

Date of Activity:	
Entered by (contractor):	

Reference ID	Checklist Item	Response			Action	Action Completed?			Comments	Document Received (Admin Use Only)
		Yes	No	N/A		Yes	No	N/A		
Soil Quality Documentation and Planned Soil Deposit On-site										
A1	Is soil to be excavated and returned to same excavation hole?				**YES** - No soil testing is required, however, must ensure soil being returned to hole is not obviously contaminated (based on visual or olfactory field observations). **NO** - proceed to A2.					
A2	Is soil to be excavated and relocated to another location on-site?				**YES** - Notify NBT's Environmental Manager electronically as soon as possible. Consult the Excavated Soil Management Standard (ESMS) Process Flow diagram for guidance. Supply all relevant information including soil quality report(s) with analytical data results, volume, proposed new location, and reason for not being able to dispose of off-site. **NO** - Reference ESMS process flow chart.					
Planned Pre-load or Backfill On-site										
A3	Is there any planned preloading or backfilling and any task that will require soil/aggregate delivery?				**YES** - Notify NBT's Environmental Manager and obtain pre-approval. **NO** - No action required.					
Soil Deposit On-Site										
A4	Has NBT's Environmental Manager approved the deposit of soil onsite?				YES - Document and submit all soil management records related to the excavation and deposit locations and activities to NBT's Environmental Manager. **This shall include:** **- Soil quality report(s) and analytical data.** **- Final known or estimated volume of soil at deposit location.** **- Map of excavation location and deposit location.** **- Any additional relevant documentation such as photos, etc.** **NO -** NBT approval required.					

Notes:
All submissions to be made electronically to NBT's Environmental Manager.

ESMS Appendix B – Off-Site Soil Disposal Checklist

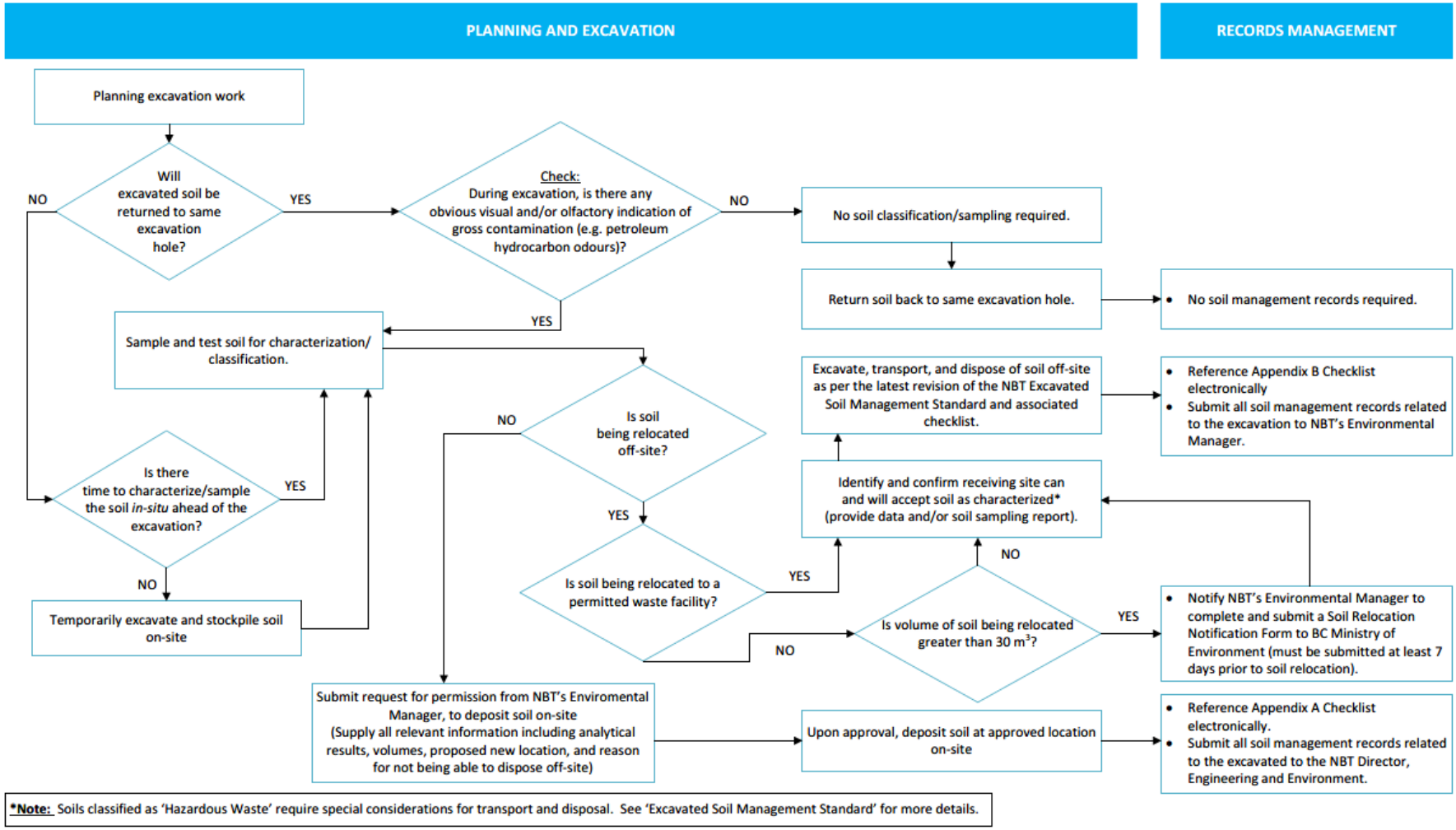
Please complete all applicable unshaded cells only.

Date of Activity:	
Entered by (contractor):	

Reference ID	Checklist Item	Response			Action	Action Completed?			Comments	Document Received (Admin Use Only)
		Yes	No	N/A		Yes	No	N/A		
Commercial/Industrial Fill Sites (Consideration only for soil quality within IL soil criteria)										
B0	Is the volume of soil to be relocated off-site greater than $30m^3$?				**YES** – Notify NBT's Environmental Manager to complete and submit a Soil Relocation Notification Form to BC Ministry of Environment, then proceed to B1. **NO** – Proceed to B1.					
B1	Has the receiving site agreed to accept the soils (volume and quality)?				**YES** - Obtain and submit signed agreement or written approval from receiving site (agreeing to accept soil). **NO** - Find another site.					
B2	Is the receiving site located within a municipality with a soil deposit bylaw and is a soil permit required?				**YES** - Obtain and submit copy of soil permit (as per municipal soil deposit bylaw) from receiving site, unless exemptions apply. If exemptions apply, document reason, and submit. **NO** - Proceed to B3					
B3	Has the amount of soil transported offsite been tracked and documented?				**YES** - Submit a summary of the soils transported and deposited at the receiving site (including disposal tracking logs and/or summary and/or manifests, if used) to NBT. **NO** - Provide NBT reasons why soils have not been tracked.					
Provincial Permitted Facility										
B4	Is the receiving facility on NBT's list of approved permitted soil disposal sites?				**YES** - Proceed to B3. **NO** - Submit electronic request to NBT's Environmental Manager to seek special permission.					
B5	Has the receiving site agreed (in writing) to accept the soils?				**YES** - Obtain and submit waste approval form. **NO** - Use another approved site.					
B6	Has the amount of soil transported offsite been tracked and documented?				**YES** - Complete and keep copies of soil movement documents used by receiving facilities and submit to NBT. **NO** - Obtain copies of soil movement documents.					
Hazardous Waste Soils										
B7	Is the soil hazardous waste?				**YES** - Proceed to B8. **NO** - Proceed to B1 or B4.					
B8	Has the receiving site confirmed they can accept the waste with respect to both quantity and composition?				**YES** - Obtain and submit waste approval form. **NO** - Use another approved site.					
B9	Does the receiving site have a current Waste Authorization Permit and Operational Certificate?				**YES** - Obtain a copy of Waste Authorization Permit and Operational Certificate. **NO** - Use another approved site.					
B10	Is the transport company authorized to transport waste to the disposal facility?				**YES** - Retain hazardous waste manifests and submit. **NO** - Use another transport company.					

Notes:
All submissions to be made electronically to NBT's Environmental Manager.

NEPTUNE BULK TERMINALS (CANADA) LTD.
FIGURE 1. GENERAL EXCAVATED SOIL MANAGEMENT STANDARD PROCESS FLOW DIAGRAM



I-11 Contractors Annual Environmental Compliance

All contractors shall review and adhere to NBT's Environmental requirements as it applies to the contractor and their contracted scope of work. This adherence must be signed off by the contractor on an annual basis and will be considered as part of NBT's EMS annual environmental training of contractors.

1. Contractor Information	
Company Name:	
2. Required Environmental Management Plan/Environmental Practices	
Posting of the (Construction) Environmental Management Plan shall be located on-site. All environmental requirements must be reviewed by the contractor and the contractor's staff. These requirements include but may not be limited to the following:	
2.1	**IF** demolition includes asbestos removal, Ref: NBT Asbestos Handling Procedure
2.2	**IF** work includes Soil Excavation, Handling, Storage Characterization and Disposal, Ref: NBT Excavated Soil Management Standard
2.3	**IF** work includes generation and disposal of hazardous substances, Ref: NBT Haz-Waste Disposal Procedure
2.4	Generation and Disposal of Waste
2.5	Spill of Hazardous Substances to Land
2.6	Spill of Hazardous Substances to Ocean
2.7	**IF** work includes Fuel and Flammable Storage, Ref: NBT Storage and Handling of Hazardous Wastes
2.8	Refueling Procedures
2.9	Dust Generation/Other Air Emissions
2.10	Contractor Vehicle Access Policy (3-minute idling rule, etc.)
2.11	Water Containment and Treatment
2.12	Fish and Aquatic – Habitat Alteration, Disturbance or Loss
2.13	Birds – Habitat Alteration, Disturbance or Loss
2.14	Visual Impacts/Noise Concerns
2.15	Impacts on NBT Operations/Schedules/Property

3. PERMITS AND APPROVALS INFORMATION (AS APPLICABLE)	
3.1	Ensure NBT Operations Superintendent Contact is posted
3.2	Ensure all the permits, licenses and approvals been obtained and/or checked
3.3	Ensure Non-Road Diesel Engine Emission Registration compliance
3.4	Ensure Electrical Permit Number has been obtained
3.5	Ensure Building Permit Number has been obtained
3.6	Ensure Groundwater Discharge Permit Number has been obtained
3.7	Ensure all Permits and licenses for this contract have been received and posted
3.8	Ensure the NBT Environmental Policy been reviewed and posted NBT Environmental Policy
4. EMERGENCY RESPONSE PLAN/SPILL RESPONSE PLAN	
4.1	The Emergency Response Plan shall be discussed with a NBT representative
4.2	The Spill Response Plan shall be submitted and posted once approved
4.3	All employees shall be aware of the location of the closest spill kits
5. ENVIRONMENTAL INCIDENT REPORTING	
5.1	All Environmental Incident Reporting Procedures shall be discussed with a NBT representative
5.2	The NBT Environmental video shall be reviewed by all personnel accessing the site: • Environment and Emergency Response Video

At NBT's site, the latest revisions of all applicable Municipal, Provincial and Federal Regulations (e.g., Special Waste Regulation, Spill Reporting Regulation, Waste Management Act, Fisheries Act and WorkSafe) are all applicable.

The undersigned has read and agrees on all environmental requirements of the work as detailed above.

Signed: _____ Date: _____

Contractor

_____

Company