

<b>Seaspan ULC</b> <b>Environmental Best Management Practices (BMPs)</b>	<b>BMP - 01</b> PAGE: 1 of 1
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**BMP - 01: Hazardous Materials Management**

**PURPOSE:** Seaspan ULC comprises many different business units, locations, and vessels. All operational units have their own specific Standard Operating Procedures (SOPs) or equivalent operational procedures which incorporate environmental protective measures where appropriate. These BMPs are intended to compliment these standard procedures, and outline the basic requirements of environmental management across the company in line with Seaspan ULC Core Values.

**GENERAL**

Hazardous materials commonly used throughout the company include oil, fuel, paint, solvent, batteries, compressed gas etc. All hazardous materials must be handled, stored, labelled and transported in accordance with applicable regulations, standards and guidelines.

**LABELLING**

- All hazardous materials must be labelled in accordance with TDG Regulations and WHMIS.
- Labels should include: product name, safety precautions, date, vessel/project/job number and contact name (if applicable).

**STORAGE**

- Storage must be in accordance with the BC Fire Code; do not store excessive or unnecessary amounts of hazardous materials at work sites.
- Store materials indoors where possible, in a protected, contained location away from drains.
- When materials must be stored outside, they should be away from drains, covered, and must be placed in containment.
- As a guideline, containment should be 110% of the volume of the largest tank, or 10% of the total volume of all the containers, whichever is greater.
- Where practicable, containment berms should be present around all equipment that uses large amounts of oil.

**USE**

- MSDS information must be available at the point of work of any hazardous material.
- Use the MSDS to learn about the hazards, the disposal requirements, PPE requirements, and the product-specific emergency response requirements.
- Always have a supply of appropriate spill response equipment/materials at the location of use.
- Mix paints and solvents in designated areas away from drains, ditches, piers and surface waters. Always use drip trays.
- Use spill trays for drums with taps.

**DISPOSAL**


- Dispose of hazardous wastes according to applicable municipal, regional, provincial and/or federal regulations (refer to BMP-02).

**SPILL PREVENTION, RESPONSE & REPORTING**

- Store and use hazardous materials away from drains and surface waters where possible.
- Respond to any releases immediately as per site-specific and vessel training.
- Report all spills directly to a Supervisor, Seaspan Dispatch or to an EMS Representative.

**MONITORING & INSPECTION**

- Monitor storage areas periodically to check that containment is intact, there are no leaks, and storage is adequate (i.e. stored in containers appropriate for the nature of material).
- Check for appropriate labelling (i.e. product name, safety precautions, date, project/job number).
- Check for expired chemicals and waste materials – remove and dispose of appropriately.

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<b>Seaspan ULC</b> <b>Environmental Best Management Practices (BMPs)</b>	<b>BMP - 02</b> PAGE: 1 of 2
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**BMP - 02: Waste Management and Recycling**

**PURPOSE:** Seaspan ULC comprises many different business units, locations, and vessels. All operational units have their own specific Standard Operating Procedures (SOPs) or equivalent operational procedures which incorporate environmental protective measures where appropriate. These BMPs are intended to compliment these standard procedures, and outline the basic requirements of environmental management across the company in line with Seaspan ULC Core Values.

**GENERAL**

Operations at Seaspan ULC business units - including vessels, generate a variety of waste streams:

- hazardous waste (i.e. oil filters, waste paint and solvents, oily rags & absorbent pads);
- hazardous recyclables (i.e. waste oil, batteries);
- general landfill waste; and,
- common recyclable materials (i.e. cardboard, paper, plastic, glass).

Each business unit is responsible for collecting and disposing of all waste and recyclables that are generated from their activities, properties, and vessels that they are accountable for.

**HAZARDOUS WASTE & RECYCLABLES**

**LABELLING**

- All hazardous waste must be labelled in accordance with TDG Regulations, BC Hazardous Waste Regulations (BC HWR), and WHMIS (where applicable).

**TEMPORARY STORAGE**

- Storage must be in accordance with the BC Fire Code and compatibility requirements; do not store new products with hazardous waste products.
- Segregate each hazardous waste stream and maintain adequate organization.
- Ensure containers used are appropriate for the type of waste (i.e. separate drums for waste oil, oil filters, antifreeze, oily rags, contaminated clean up pads, paint and solvents, spent grit).
- Inspect all valves and storage containers for rust or damage before use.
- Do not dilute or mix hazardous waste with other non-hazardous wastes.
- Store hazardous wastes in contained, designated, signed, temporary storage areas. This could include a paved, contained area, away from drains.
- Cover waste containers to prevent exposure to weather.

**SPILL PREVENTION, RESPONSE & REPORTING**


- Store as per above, always have a supply of spill response equipment available near hazardous waste storage areas.
- Respond to any releases immediately as per site-specific and vessel training.
- Report all spills directly to a Supervisor, Seaspan Dispatch or to an EMS Representative.

**MONITORING & INSPECTION**

- Monitor hazardous waste areas periodically to check that containment is intact, there are no leaks, and storage is adequate (i.e. stored in containers appropriate for the nature of waste).
- Check for adequate labelling (i.e. waste name, safety precautions, date, vessel/project/job number, contact name – where applicable).

**DISPOSAL**

- Dispose of hazardous wastes according to applicable regulations (regional, provincial, federal). Use a registered hazardous waste transport contractor and a registered receiving facility.
- Maintain appropriate records for disposal of hazardous waste as per regulation (i.e. BC Government Hazardous Waste Manifest, Bills of Lading etc.).

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**BMP - 02: Waste Management and Recycling**

**GENERAL SOLID WASTE & RECYCLABLES**

- Recyclable materials must be segregated from the general solid waste stream. Recyclables could include, but are not limited to: hard plastics, mixed paper, cardboard, and glass.
- Other solid waste such as scrap metal (i.e. aluminum, copper, wire, and steel), wood, electronics, and soft plastics should also be segregated and recycled at an appropriate facility.
- Bin signage and employee instruction must be implemented to assist with segregation. Recycling areas should be conveniently located and easily identifiable.

**DO NOT** pour any waste liquids down floor, sink, outdoor storm drains or into the water.

**DO NOT** allow large quantities of waste materials to build up on site.

**DO NOT** abandon any quantity of waste materials whether liquids or solids.



Signage is used to assist segregation of hazardous waste at Victoria Shipyards Co. Ltd.



Temporary hazardous waste management area at Vancouver Shipyards Co. Ltd. (under construction in 2013/14)



Temporary hazardous waste management area at Seaspan Marine Operations, Vancouver – Main Dock

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<b>Seaspan ULC</b> <b>Environmental Best Management Practices (BMPs)</b>	<b>BMP - 03</b> PAGE: 1 of 1
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**BMP - 03: Spill Prevention and Response**

**PURPOSE:** Seaspan ULC comprises many different business units, locations, and vessels. All operational units have their own specific Standard Operating Procedures (SOPs) or equivalent operational procedures which incorporate environmental protective measures where appropriate. These BMPs are intended to compliment these standard procedures, and outline the basic requirements of environmental management across the company in line with Seaspan ULC Core Values.

**GENERAL**

Work completed at Seaspan ULC operational units and on vessels must be planned to prevent the occurrence of spills to land, to vessel deck, to the marine environment, or to the atmosphere – where practicable. Employees must respond to and report all spills as per their site specific or vessel emergency response plans.

**SPILL PREVENTION**

- Follow standard procedures (i.e. SOPs). Implement controls and utilize containment.
- Use spill trays (or other appropriate containment) when transferring liquids between containers, or working near drains, and sensitive areas such as piers near the marine environment.
- Ensure adequate spill response materials and equipment is available for use.
- Store all hazardous liquids in appropriate containers, and place in suitable containment.
- Ensure all loads are stable, secure, and safe prior to transport (i.e. forklift operations).

**BASIC SPILL RESPONSE GUIDANCE**

**BE SAFE – ASSESS THE RISK:**

Never rush in. Warn others in the area. If safe to do so, identify product and select appropriate PPE using MSDS. Eliminate all sources of ignition. Stay upwind of vapours.

**CALL FOR ASSISTANCE:**

Call co-worker/Supervisor/Safety Department or Seaspan Dispatch for help.

**STOP FLOW:**

If safe to do so, set containers upright. Close valves, shut off pumps, plug leaks. Place contents of a leaking container into a secure container.

**CONTAIN SPILL:**

Block drains, culverts, scuppers, and other escape points. Contain spill with sorbents, earth, sand or other non-combustible materials. Do not use detergents to disperse oil products.


**CLEAN UP & WASTE MANAGEMENT:**

Collect all used sorbent material using clean non-sparking tools. Place all waste materials in labelled, sealed containers or plastic bags. Use appropriate waste contractor for disposal.

**ENSURE SPILL IS REPORTED:**

Report details of the spill verbally to a Supervisor, Seaspan Dispatch (for vessels), to the business unit Environmental Representative (EMS Rep) or to the Safety department. Additional external reporting requirements may be necessary based on the details of the release.

All spill types and volumes must be reported internally by all Seaspan ULC employees. This allows trend evaluation using primary cause, and assists management with continual improvement and prevention.

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<b>Seaspan ULC</b> <b>Environmental Best Management Practices (BMPs)</b>	<b>BMP - 04</b> PAGE: 1 of 1
<b>BMP - 04: Site Management and Housekeeping (Yards, Shops &amp; Vessels)</b>	
<b>PURPOSE:</b> Seaspan ULC comprises many different business units, locations, and vessels. All operational units have their own specific Standard Operating Procedures (SOPs) or equivalent operational procedures which incorporate environmental protective measures where appropriate. These BMPs are intended to compliment these standard procedures, and outline the basic requirements of environmental management across the company in line with Seaspan ULC Core Values.	

**GENERAL**

An organized, clean facility/work area provides an environment that reduces the potential for pollutants to cause negative environmental impact through incidents. General cleanliness will lead to more organized and consistent handling of hazardous and general waste materials.

**CLEAN UP**

- Clean debris from work areas on a regular basis - take pride in maintaining a tidy work area.
- Dispose of collected material appropriately (i.e. segregate for recycling, label wastes etc.).
- Dispose of nitrile gloves, ear plugs, cigarette butts and other small litter into designated garbage bins, do NOT throw anything to ground, dock bottom or overboard.
- Ensure garbage and recycling containers are available for use and are emptied regularly.
- Sweep and/or clean the active working area of the yard/site/vessel on a regular basis.

**STORAGE**

- Do not use extra space for the random storage or dumping of materials and equipment.
- Regularly inspect/monitor work storage areas for unidentified or improperly stored materials.
- Ensure all containers (i.e. pails, drums, totes) are in good condition, have a clean exterior, and are appropriately labelled as per BMP-01 and BMP-02.
- Use signage to guide workers in organized storage of equipment, tools and materials.



Above – example of poor housekeeping




Above - disorganized work area



Above - well organized and tidy work area



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