Kootenay Business Area
Worker Field Handbook

July 2016
Part A  Core Information

Worksite Details
Project (TSL or Contract)#
Physical location of activity:
Latitude: Longitude:
Duration of Activities:  Date: Year Month Day

Company Contact Information
24 hr Contact Name and Phone (s) #:
Company Name/Email:
Other Key Emergency Contact(s) #:

Environmental Emergency Contact Information
Forest Fire Reporting: **1-800-663-5555** or **5555** on the Cantel and Telus networks
Spill Reporting: **1-800-663-3456** Emergency Management BC (EMBC)
Natural Gas Leaks: Contact EMBC and utility company (if known): FortisBC **1-800-663-9911** (Northeast, Fraser Valley, South), Pacific Northern Gas (Northwest and Northeast) **1-800-663-1173**, Spectra Energy (Northeast and Fraser Valley) **1-800-663-9931**
CANUTEC (Canadian Transport Emergency Centre): **1-613-996-6666** or **666** on cell phone
BC Timber Sales Contact: Cameron Paterson CSO 250-551-0364, Russ Laroche 250-551-3925, Nelson Office 250-825-1100

Part B  Supplemental Information (Use and content at discretion of local BA)

General Contact Information
Ambulance: 911  Canadian Coast Guard: 1-800-567-5111 or cell #727
Fire Department: 911  Hospital:
Poison Control Centre: 1-800-567-8911
Water Taxi / Ferry:
Arrow Park 250-837-8634 or 778-206-0384, Needles 250-269-7222, Galena 778-206-0384 all operated by WaterBridge Ferries Inc.
Kootenay Lake 250-354-7656 operated by Western Pacific Marine
Helicopter / Aircraft:  BC Wildfire Service Website: [http://bcwildfire.ca](http://bcwildfire.ca)
BC Wildfire Service Phone and Fax # (Circle Fire Centre in which activities are occurring):

August 8, 2016
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### Part A Core Information

#### Worksite Details

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<thead>
<tr>
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**Duration of Activities:**

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<th>Date</th>
<th>Year</th>
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<th>Day</th>
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- **24 hr Contact Name and Phone (s) #:**
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- **Other Key Emergency Contact(s) #:**

#### Environmental Emergency Contact Information

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<td>Helicopter / Aircraft:</td>
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</table>
ENVIRONMENTAL EMERGENCY RESPONSE PLAN
For BCTS Client Use

BC Wildfire Service Phone and Fax # (Circle Fire Centre in which activities are occurring):

Part C Core Information

FOREST FIRE PREPAREDNESS AND RESPONSE

Initial Fire Response

1. Stop operations and notify the rest of the crew.
2. Report Forest Fires immediately to the BC Wildfire Service (BCWS) and BCTS.
3. The person reporting the fire shall remain in contact to communicate details of the fire suppression activities taken and what additional activities may be required.
4. The remaining crew shall begin immediate action to control and extinguish the fire, if practicable and safe to do so, to the extent of their training and competence.
5. The person in charge of a crew taking action to control a fire is responsible for continuing fire control activities until relieved by the licensee/contractor representative or BCWS personnel.

If Alone

- Take immediate action on the fire if you believe you can safely control it yourself. Report the fire to BCWS and the licensee/contractor representative as soon as you feel that the fire can be left alone without spreading out of control.
- If the fire is beyond your ability, notify the BCWS immediately and follow their instructions. DO NOT take action on an intense fire yourself.

☑ Complete an Incident Report Form (CHK-009 or equivalent) and submit to BCTS.

Fire Roles and Responsibilities

Prior to Start-Up and During Operations

☑ For All Industrial Activities
  - When conducting an industrial operation, sufficient firefighting hand tools must be available on site whenever the area is snow free and there is a risk of a fire starting or spreading.
  - Hand tools must be a combination and type to properly equip each person who works at the site with a minimum of one firefighting hand tool per person. Tools may include shovels, mattocks, pulaskis, fire extinguishers and hand tank pumps. The BCTS general rule for assessing the adequacy of firefighting hand tools is:
    # of workers assigned to the site during normal work hours = # of hand tools on site

☑ For High Risk Industrial Activities
  - Determine if your operations are High Risk as defined in Part 1 of the Wildfire Regulation.
  - Determine the danger class, follow danger class restrictions and durations, keep sufficient firefighting hand tools plus an adequate fire suppression system at the activity site, and maintain fire watcher and communication requirements.
  - A fire suppression system means a system for suppressing fire by delivering water, a suppressant, a surfactant, or any combination of these substances.

☑ Determine Restrictions on High Risk Industrial Activities
  - Acquire local weather data to comply with the Wildfire Regulation. Weather station information is available from the BCWS website at [http://www.bcwildfire.ca/Weather/stations.htm](http://www.bcwildfire.ca/Weather/stations.htm)
• Danger class ratings for your site may be higher than those calculated by the BCWS. Consider local conditions when determining applicable weather station and when to restrict activities.

Note: Refer to the BCWS "Interpretative Bulletin on the Application of the Wildfire Regulation for the Forest Industry" for further guidance to the above, including a defined wildfire prevention and response system (Appendix A) at http://www.bcwildfire.ca/Industry_Stakeholders/Industry/

Fire Roles and Responsibilities continued

☑ Provide 24hr Contact information
  • Timber Sale License holders must provide an official with a 24 hour a day contact telephone number if the person proposes to carry out an industrial activity on or after March 1 and before November 1 of that year.

☑ Provide copies of your training records as required.

☑ Ensure employees are trained and aware of all fire emergency responsibilities.

☑ Complete environmental Emergency Response Plan (eERP) with worksite details and company contact information.

☑ List the minimum fire equipment that will be maintained on site for “Industrial” and “High Risk Industrial” activities during Danger Classes III, IV, and V (i.e., water tank(s), pump(s) hoses, accessories etc.):

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<thead>
<tr>
<th>Favorite 1</th>
<th>Favorite 2</th>
<th>Favorite 3</th>
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During Operations

☑ Ensure employees are aware of all fire preparedness responsibilities and trained as to their fire duties in accordance with WorkSafeBC requirements.

☑ Conduct test(s) and periodic drill(s) of fire preparedness and response. Tests are to be documented on the BCTS Environmental Emergency Response Test/Drill Report Form CHK-010, records maintained on site and copies of results forwarded to a BCTS representative. Results of drills may be documented on the CHK-010 and maintained on site.

☑ Regularly monitor the appropriate fire weather index information using your representative weather station and determine the appropriate Fire Danger Class for the area. For Danger Class Reports go to; http://bcwildfire.ca/Weather/Maps/danger_rating.htm

☑ Restrict activities during Fire Danger Class III, IV, or V situations. Implement fire watch, patrol, early shift, and cease activity, as required (see Schedule 3 of the Wildfire Regulation). Monitor activities and changing site/weather conditions. Do not operate solely by the Schedule 3 of the Wildfire Regulation.

☑ Ensure a copy of the environmental Emergency Response Plan (eERP) is onsite.

☑ Conduct regular fire suppression equipment inspections and maintenance.

☑ Take action on a forest fire that is within 1 km of the site of the industrial activity.

☑ Complete Hazard Assessments and Abatement at prescribed intervals in accordance with the Wildfire Regulation;
  • Keep all debris piles clean, obtain a Burn Registration Number (BRN) by calling 1-888-797-1717, complete hazard abatement and follow requirements including monitoring of burning activities
  • For smoke management / venting indices call the Provincial Venting Index Hotline 1-888-281-2992
or visit the BC Environment Venting Index website;
http://www.env.gov.bc.ca/epd/epdpa/venting/venting.html

- Extinguish and inspect debris piles by the date specified according to the BRN. Apply to extend the BRN if additional time is required to extinguish burned debris piles.

Part D Core Information

**SPILL PREPAREDNESS AND RESPONSE**

**Initial Spill Response Activity**

1. **Discovery and Assessment**
   - Follow safety procedures and put on appropriate personal protective equipment prior to initiating response plan.
   - If Safe, **STOP THE PRODUCT FLOW!** Halt activities that are causing the spill (e.g. Close valves; elevate leaking hoses, shut off pumps, etc.). **Minimize Impact of Spill.**
   - Prior to taking action complete an incident assessment (spill identification /volume, assess potential safety, and environmental issues).
   - **If you feel that the spill is beyond your level of training and experience to handle, seek assistance from a spill response specialist.**

2. **Notification and Documentation**
   - Report spills in accordance with spill reporting criteria listed in Table 1 below.

3. **Containment and Recovery.**
   - Take action within your ability using resources (hand tools, heavy equipment and spill response equipment) at hand to minimize the spread and impact of the spill until additional resources and expertise arrive.
   - **Due to the hazardous nature of gasoline, volatile gases should be allowed to dissipate before attempts are made to contain or mop up a gasoline spill.**

**Spills to Land**

- Determine extent of spill. Contain or redirect spills away from watercourses.
- Mark the perimeter of the spill, dig recovery ditches around the perimeter and recovery pits (sumps) within the spill area.
- Monitor ditches and recovery pits to ensure the collection system is effective.
- Recover the product from the containment area, treat or dispose of appropriately.

**Spill to Water**

- In a ditch or stream, contain the spill using whatever surface water containment system possible.
- Divert and corral the spilled product to a spill containment system using absorbent booms or other methods.
- Continue to sweep and corral the spilled product for recovery.

**For Spills less than 25 litres**

- Soak up all free products with absorbent pads, booms, and other materials.
- Place used absorbent materials in a suitable container (i.e. heavy-duty plastic bag) for disposal or recycling. Mix stained soil with loose absorbents or commercial bioremediation agents.

4. **Follow-up, Disposal and Site Restoration**

- Ensure spills have been documented and reported to agencies and BCTS as required.
- Complete clean-up and required mitigation actions. If required, contact a spill response specialist for assistance.
- **Complete an Incident Report Form (CHK-009 or equivalent) and submit to BCTS.**
Spill Roles and Responsibilities

- **Assess risk for potential spills** identify additional preventative and control measures
- **Ensure all workers understand the environmental emergency response plan** and it is available on site at all times.
- **Ensure all workers are familiar with potential spill sites, spill kit locations and spill kit requirements.**
- **Ensure workers are trained/aware** in WHMIS, TDG and Spill response
- Have available on site appropriate MSDS.
- **Conduct test(s) and periodic drill(s) of spill preparedness and response.** Tests are to be documented on the BCTS Environmental Emergency Response Test/Drill Report Form CHK-010, records maintained on site and copies of results forwarded to a BCTS representative. Results of drills may be documented on the CHK-010 and maintained on site.
- **Complete spill kits inspections and maintain spill kits** as necessary
  - For Equipment spill kit content requirements see Fuel Handling Environmental Field Procedure EFP-06.
- **Respond to all spills** in accordance with the emergency response plan.
  - If you are responsible for a spill of hazardous material, you are then responsible to take appropriate actions to minimize environmental impact.
- **Report all reportable spills** to the appropriate agencies and to BCTS.

Spill Reporting Criteria (If in Doubt Report the Spill)

- All spills that are equal to or greater than the EMBC reportable level must be reported to EMBC as soon as possible and within 24hrs.
- Any spills of deleterious substance to a watercourse must be reported to EMBC as soon as possible and within 24hrs.
- All spills that are equal to or greater than the BCTS reportable level must be reported to BCTS contact as soon as possible and within 24 hrs.

Table 1: Reportable Levels of Hazardous Materials Spills

<table>
<thead>
<tr>
<th>Hazardous Material</th>
<th>EMBC Reportable Level (1)</th>
<th>BCTS Reportable Level (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antifreeze</td>
<td>5 litres</td>
<td>5 litres</td>
</tr>
<tr>
<td>Diesel fuel</td>
<td>100 litres</td>
<td>25 litres</td>
</tr>
<tr>
<td>Gasoline (auto &amp; saw)</td>
<td>100 litres</td>
<td>25 litres</td>
</tr>
<tr>
<td>Greases</td>
<td>100 litres</td>
<td>25 litres</td>
</tr>
<tr>
<td>Hydraulic Oil</td>
<td>100 litres</td>
<td>25 litres</td>
</tr>
<tr>
<td>Lubricating Oils</td>
<td>100 litres</td>
<td>25 litres</td>
</tr>
<tr>
<td>Methyl Hydrate</td>
<td>5 litres</td>
<td>5 litres</td>
</tr>
<tr>
<td>Paints &amp; Paint Thinners</td>
<td>100 litres</td>
<td>25 litres</td>
</tr>
<tr>
<td>Solvents</td>
<td>100 litres</td>
<td>25 litres</td>
</tr>
<tr>
<td>Pesticides</td>
<td>1 kilogram or 1 litre</td>
<td>1 kilogram or 1 litre</td>
</tr>
</tbody>
</table>

(1) as required by the BC Spill Reporting Regulation
(2) or a spill of ANY quantity that enters a surface water body (e.g.: running ditch, stream, lake)
Part E Core Information

LANDSLIDE & EROSION EVENT RESPONSE

Initial Response Activity

1. **Evaluate.** Follow applicable safety procedures and notify supervisor and other workers. If safe to do so, assess situation to determine if activities must be shutdown.

2. **Immediate Remedial Action.** Take steps to control further environmental impacts.

3. **Notification.** Report the erosion event to the BCTS contact within 24 hours or as soon as practical. (Refer to Reporting Criteria). It is also the LPC’s responsibility to notify applicable regulatory agencies of a reportable slide (i.e. informing DFO that a slide has entered a fish-bearing stream) and to notify WorkSafeBC if the slide event relates to a safety incident.

4. **Before Leaving the Site.** Supervisors must account for all workers before leaving the site. If a shutdown is required, park all equipment in an environmentally safe location (i.e. avoid riparian management areas, steep side slopes, steep road sections, areas with excessive soil moisture, areas within reach of standing timber, etc.).

5. **If Environmental Damage Has Occurred.** The BCTS contact must review the situation with the appropriate personnel.

6. **Complete an Incident Report Form (CHK-009 or equivalent) and submit to BCTS.**

Landslide & Erosion Roles and Responsibilities

- **Verify** that operations are conducted in a manner that minimizes the risk of a landslide and major erosion event occurring.
- **Ensure all workers understand and are trained** in response procedures and the environmental emergency response plan is available on site at all times.
- **Supervisor** to ensure all employees are familiar with risk areas.
- **Conduct test(s) and periodic drill(s) of Landslide/Erosion Emergency Response.** Tests are to be documented on the BCTS Environmental Emergency Response Test/Drill Report Form CHK-010, records maintained on site and copies of results forwarded to a BCTS representative. Results of drills may be documented on the CHK-010 and maintained on site.
- **Assess** landslides and erosion events, determine reporting requirements, and report to BCTS contact immediately where applicable.
- **Respond to erosion events** in accordance with this emergency response plan.

Landslide/ Erosion Event Reporting Criteria

Landslides and major erosion events must be reported to BCTS in ANY of the following circumstances:

- Loss or imminent loss of life or property,
- Significant environmental damage,
- Situations which potentially create loss of provincial revenue or funds,
- Abnormal movement has occurred or is actively occurring at a site,
- Abnormal sedimentation,
- A volume of greater than 250 m³ has moved or is imminent danger of movement,
- A land area greater than 0.25 hectares is disturbed,
- A road or structure is damage and requires structural repairs.
Scope and Purpose
This ERP applies to BCTS clients (Licensees, Permitees and Contractors) and their workers involved in forest practices within Kootenay BA community and domestic consumptive watersheds. The purpose of this ERP is to prevent and respond to water disruption (from sedimentation, spills, or interrupted flows) resulting from BCTS-authorized activities.

Preparedness Roles and Responsibilities

☑ Know the names of and contact information for water users within the area of active operations. Ensure this information is on site and available to workers (refer to attached contact list).

☑ Know the field location of applicable points of diversion (PODs) and associated infrastructure as identified on project maps, site plans, and assessments.

☑ Be familiar with applicable prescriptions (for example: site plans, road designs, drainage plans, riparian management prescriptions, terrain stability and soil erosion assessments, harvest plans) when working in and around drainage areas connected to PODs including protocols for changing site conditions. Review during office and field pre-work discussions. Minimize soil disturbance.

☑ Ensure adequate sediment control tool kit (e.g. filter fabric, hay bales, rock for armoring etc.) is available on site and workers are aware of their roles and responsibilities for sediment abatement.

☑ Conduct periodic emergency response drill(s) and or test(s) related to disruption of water, based on employee knowledge and experience and seasonal and site conditions.

☑ Monitor activities, site and weather conditions, and water turbidity for possible impacts occurring to water quality and stream conditions associated with PODs.

☑ Ensure potentially-affected water users and BCTS are advised of planned water interruptions or potential sediment increases as a result of activities.

☑ Report to BCTS any amount of unexpected soil movement or any quantity of material spill or equipment fluid leaks within the watershed area.

Initial Response (Water Disruption Events)

2. Take Control: If the disruption is a result of a forest practice, STOP WORK.
3. Take Action: Consider removal of POD intake and/or bypassing POD. Implement sediment abatement measures (sediment control kit).
4. Notification: Contact affected water user(s) and BCTS representatives as soon as possible.
5. Document details of the incident and response measures on CHK-009 Incident Report Form and submit to BCTS.
6. Work Co-operatively with BCTS, other agencies, and water users to investigate incidents and to implement measures to restore disrupted water supply quickly, thereby minimizing impacts on water users.
Purpose and Scope
This EFP applies to all BCTS Licensees, Permittees and Contractors, including their employees, agents, and subcontractors, involved in field activities within the scope of the BCTS EMS. It describes procedures to reduce the risk of negative impacts on the environment. This EFP does not replace the requirements of legislation, licences, permits and contracts.

General Procedures

- **Complete a pre-work** with your supervisor.
  - Obtain and review all Project Plan documents (e.g. harvest plan, harvest plan map, site plan supporting information, road layout and design and silvicultural treatment plans).
    - Have them readily available.
  - Ensure you understand your role in the Project Plan prior to commencing work, and
  - Know the flagging or field marking standards.
- **Look ahead** and make sure that the Project Plan is appropriate.
  - View the area to familiarize yourself with the Project Plan, including map content.
- **Ensure that all resource features, resource values or sensitive areas** identified on the Project Plan map can be located by you on the ground. Know the associated management strategies.
- **Monitor and inspect your work** and ensure that the work conforms to the project requirements.
  - Conduct operations to minimize potential impacts on hazardous or sensitive areas, resource features, resource values, water quality, and site productivity, and
  - Operate during favourable weather conditions.
- **Have the Project Plan map available to you and know your location at all times. Keep the site clean and be prepared for emergencies.**
  - Inspect equipment regularly and repair/maintain equipment as required.
  - Maintain fire suppression equipment and spill kits, replace used supplies promptly.
  - Ensure the safe transportation, storage and handling of industrial waste, (petroleum and chemical products, grease tubes, filters, batteries, coolant, wire rope, used spill pads etc.). Dispose of industrial waste only at appropriate disposal facilities, and
  - Understand the environmental Emergency Response Plan (eERP) and your responsibilities in it.
- **Know the project shutdown criteria.**

**STOP WORK**
and contact your project supervisor and the BCTS representative if:

- You are uncertain of the Project Plan, your responsibilities, or the location of hazardous/sensitive areas.
- A previously unidentified resource feature, resource value (e.g. cultural) or sensitive area is found.
- You experience unfavourable weather or site conditions that could cause environmental damage.
- You observe conditions that have the potential for immediate environmental damage.
- You believe the Project Plan will not work.
Purpose and Scope
This EFP applies to all BCTS Licensees, Permittees and Contractors, including their employees, agents, and subcontractors, who are responsible for supervising field activities within the scope of the BCTS EMS. It describes the supervisors’ responsibilities to prepare and supervise workers in such a manner as to reduce the risk of negative environmental impacts. This EFP does not replace the requirements of legislation, licences, permits and contracts.

Pre-work
1. Complete a pre-work with your supervisor and/or the BCTS representative. Understand the information that is provided on the relevant pre-work checklist. Ensure you obtain all information required to supervise the project and to prepare you for any emergencies.
2. Prepare for, complete and document a pre-work with all employees, agents and sub-contractors involved in the project before the work commences:
   • Review relevant project information including contract, licence, permit, map, Project Plan, field marking, prescriptions, special conditions, requirements and specifications. Review environmental field procedures, environmental emergency response plans and any resource features, resource values, sensitive areas, and special conditions.
   • Provide copies of Project Plans and maps to workers.
   • View the site with employees to familiarize them with resource features, resource values, sensitive areas, and special conditions, as relevant to their function and activity.
   • Document your pre-work discussion with your workers and record the names of attendees. A copy of the BCTS Prework Report that was completed with you by BCTS can be used for this purpose.
   • Ensure all stakeholders are notified as required (e.g. affected water licensees or purveyors, trappers, guides, lodges, residents etc.).
   • Additional pre-works may be required if work has been shut down for an extended period of time (90 calendar days or more e.g. seasonal, fire, operational restrictions, economics etc.)

While supervising, ensure you:
1. Have a Project Plan.
2. Look ahead to make sure Project Plans will work.
   • Ensure that all resource features, resource values or sensitive areas identified on the Project Plan map can be located by you on the ground. Know the associated management strategies and communicate those to workers.
   • Document any previously unidentified resource features, resource values or sensitive areas found by you or the workers. Identify them on the Project Plan map and report them to your supervisor and the BCTS representative.
3. Assess need for changes to Project Plan(s). Licensees and Permittees must amend Project Plan(s) before conducting primary forest activities in a way that is different from what is described in the plan.
4. Know and follow all EFP requirements.

While supervising, ensure all employees:
1. Understand their roles and responsibilities and:
   • Have received all necessary information and instructions,
   • Have relevant EFPs available to them, and follow the requirements of the EFPs, and
   • Have relevant Project Plans available to them and understand their associated requirements.
2. Notify you of:
   • Any planned works that do not conform to the Project Plan(s), prior to those works being conducted, and
   • Any situations that have caused or have the potential to cause environmental damage.
Monitor and Inspect the Works:

1. Monitor and inspect current and completed works.
   - Review relevant items, including:
     ▪ Conformance to the Project Plan;
     ▪ Conformance to EMS / SFM requirements (e.g. EMS training completed and documented, pre-work(s) completed and documented, eERP completed, implemented and on-site, EFPS followed and onsite, etc.) and SFMPs;
     ▪ Licence, permit and/or contract conditions;
     ▪ Compliance with legislation (e.g. Forest and Range Practices Act (FRPA), Wildfire Act, Forest Act, Transportation of Dangerous Goods Act (TDG), etc.); and
     ▪ Safety requirements.
   - Any potential non-compliances are to be reported to the appropriate agency and BCTS,
   - Identified non-conformances and potential non-compliances are to be assigned corrections and corrective action(s), and
   - Follow-up on any corrections and corrective action(s) identified in previous inspection(s) completed by BCTS or the LPC Supervisor to ensure they have been carried out.

2. At a frequency provided at the BCTS pre-work, conduct self-inspections of the work. Document and file the results of the inspection and provide copies, as requested, to BCTS. The BCTS Client Self Inspection Report can be used for this purpose.

3. Complete an inspection(s) and notify BCTS prior to demobilization and prior to any extended periods of shutdown (more than 90 calendar days) such as for seasonal, fire, operational restrictions, economics etc. to ensure that the project area (licence, permit or contract area) is left in a state that the risk of a negative environmental impact is low. If any deficiencies are found such as inadequate water control (e.g. blocked ditches, culverts not installed), ensure corrections and corrective actions are carried out prior to the shutdown of operations.

Manage Documentation:

1. Keep required documentation onsite:
   - BCTS pre-work report, and records of your pre-works with workers,
   - Project Plans and other materials provided at the pre-work,
   - Environmental Emergency Response Plan (eERP) available to all workers,
   - EFPS available to workers as relevant to their activities,
   - BCTS inspection reports and your self-inspection reports,
   - Completed Incident Report forms for any incidents that have occurred during the work, and
   - Training records and completed emergency response test reports.

2. Provide records for review upon request by BCTS.

In the case of an emergency or environmental damage:

1. Follow the eERP, including reporting to BCTS and external agencies.

2. Complete an Incident Report Form (CHK-009 or equivalent) and provide a copy to BCTS for required types of incidents. Ensure that corrections and corrective actions that are to be taken to address the incident are completed and followed up on.

STOP WORK
and contact your project supervisor and the BCTS representative if:

- You are uncertain of the Project Plan, your responsibilities or the location of hazardous/sensitive areas.
- A previously unidentified resource feature, resource value (e.g. cultural) or sensitive area is found.
- You experience unfavourable weather or site conditions that could cause environmental damage.
- You observe conditions that have the potential for immediate environmental damage.
- You believe the Project Plan will not work.
Purpose and Scope

This EFP applies to all BCTS Licensees, Permittees and Contractors, including their employees, agents, and subcontractors, involved in development and planning activities within the scope of the BCTS EMS. It describes procedures to reduce the risk of negative impacts of these activities on the environment. This EFP does not replace the requirements of legislation, licences, permits and contracts.

Preparation

- Ensure that you have copies of and are familiar with all standards, guidebooks, operational plans and other information relevant to the scope of work.

- Ensure that all required assessments have been identified, and that personnel with appropriate qualifications will complete these assessments.

- At the pre-work meeting, discuss details of project approach, designs, layouts, or other Project Plan requirements including the ability to make changes.

Field Work

- When conducting field work, ensure that you:
  - Have copies of any relevant plans that relate to the project area;
  - Consider all comments from First Nations, stakeholders and other agencies;
  - Follow field marking standards; and
  - Note any discrepancies between the plans and the conditions in the field.

- Consider potential longer-term implications of the planned work, such as providing future access. If you are not sure about possible longer-term requirements, ask your supervisor for direction.

- Look at all options for roads, bridges, and culverts to ensure that they are placed in the best location. Know when you can vary from specifications provided by BCTS, and when you must request approvals.

Completion

- Ensure the following information and requirements, as applicable, are correctly identified and incorporated into all layout and design work:
  - FSP information, Site Plan content, and any amendments;
  - Applicable engineering, mapping, boundary, and field marking requirements;
  - Any key points noted during reconnaissance;
  - The location of streams, terrain, and other important features including wildlife tree retention areas and reserves;
  - Any measures to ensure the stability of areas having a moderate or high likelihood of landslides;
  - Road or cutblock boundary(s);
  - Location of end-haul sections, spoil sites and quarry/pits; properly classified soils/rock;
  - Right-of-way design and markings, including landing size and location;
  - Any necessary trails;
  - The harvesting system planned to be used; and
  - Appropriate referencing (photo ties, reference points etc.).
• Ensure major crossing site plans are identified and/or completed.

• Ensure all work is in conformance with applicable requirements.

• If you have any concerns about potential environmental impacts relating to this information and the associated prescriptions, contact your supervisor.

STOP WORK
and contact your project supervisor and the BCTS representative if:

• You are uncertain of the Project Plan, your responsibilities, or the location of hazardous/sensitive areas.
• A previously unidentified resource feature, resource value (e.g. cultural) or sensitive area is found.
• You experience unfavourable weather or site conditions that could cause environmental damage.
• You observe conditions that have the potential for immediate environmental damage.
• You believe the Project Plan will not work.
Purpose and Scope

This EFP applies to all BCTS Licensees, Permittees and Contractors, including their employees, agents, and subcontractors, involved in road, bridge and major culvert construction, maintenance, inspection and deactivation within the scope of the BCTS EMS. It describes procedures to reduce the risk of negative impacts of these field activities on the environment. This EFP does not replace the requirements of legislation, licences, permits and contracts.

Road, Bridge and Major Culvert Inspections

1. **Understand** all applicable inspection and engineering requirements. Know which sites and structures require assessments, and who is qualified to do them. Only conduct assessments that you are qualified to do.
2. **Review** all relevant assessments before conducting the inspection. Understand those assessments and their management implications.
3. **Review or walk** the project area, as well as the surrounding area of influence, to ensure complete collection and reporting/mapping of all relevant field information.
4. **Understand and use** the appropriate inspection form. Record all inspection results, identifying any deficiencies or additional inspection requirements, and submit to the project supervisor.

Road Construction, Maintenance and Deactivation

1. **Have a Project Plan.**
2. **Construct and maintain** the road to ensure the structural integrity of the road prism and clearing width are protected, the drainage systems are functional and the road can be used safely by industrial users.
3. **Maintain** natural surface drainage patterns.
4. **Minimize** the impact on water quality and site productivity:
   - Operate during **favourable weather conditions**,
   - Utilize **sediment control** measures as required, including silt fences, hay bales, rock armouring, swales, water bars, or sediment ponds as appropriate,
   - **Clean** introduced debris from ditches, streams and culverts on an on-going basis before any impact can occur, and
   - **Minimize erosion** potential of exposed soil surfaces by seeding of disturbed areas.
5. When working on crossings, **know the stream classification** and prescription, including timing windows and other specifications.
6. **Install** appropriate water control measures on roads at locations where there is a risk of erosion.
7. **Ensure that road surface drainage** is directed to drainage structures and is not impeded.
8. **Avoid** directing water onto unstable slopes or erodible soils; direct water to stable slopes and / or armour outfalls with rock.
9. When re-establishing natural drainage patterns during **road deactivation**, the road fill should be removed down to the natural ground level. Cut and fill slopes must be left in a stable condition.
10. **Control** blasting to minimize fly-rock damage and slope instability.
11. **Know** the locations of end-haul and spoil sites.
12. Ensure **signage and notification requirements** are followed.
Bridge or Major Culvert Installation, Maintenance and Removal

1. Have a Project Plan.
2. **Construct and maintain** bridges and major culverts associated with the road so that they are structurally sound and safe for use by industrial users.
3. Ensure the work complies with **timing windows** and other specifications.
4. **Know** the stream classification and prescriptions for the watercourses affected by the works.
5. **Minimize** the impact on water quality and site productivity:
   - Operate during **favourable weather conditions**. Know the project shut-down criteria,
   - Utilize **sediment control** measures as required, including silt fences, hay bales, or sediment ponds as appropriate,
   - **Clean** introduced debris from ditches, streams and culverts on an on-going basis, and before any blockages can occur, and
   - **Minimize erosion** potential of exposed soil surfaces by seeding of disturbed areas.
6. Avoid placing **erodible materials** on bridge decks, in stream channels or on flood plains.
7. Avoid **directing water** onto unstable slopes or erodible soils; direct water to stable slopes and / or armour outfalls with rock.
8. **Armour** culvert inflows, outflows and fill slopes to minimize erosion, as required. It is a good practice to pre-mark inlet and outlet culvert locations to ensure appropriate road prism fit. Culvert installation should consider skew, slope and % of embedment as designed.
9. **Dispose** of wood culvert/bridge debris in designated sites, outside riparian management areas, or according to pre-work instructions.
10. Prepare professional conformance/assurance statements as required.

**Fire Hazard Assessment and Abatement**

1. Complete **Hazard Assessments** at prescribed intervals and complete abatement, if required, in accordance with the Wildfire Act and Regulation.
2. If burning is part of the plan for abatement, ensure required **notification** is made, **approvals** received and **conditions** followed. Ensure burn area is safe from escape and clear of hazardous or sensitive areas. Monitor burned sites for extinguishment.

**STOP WORK**

and contact your project supervisor and the BCTS representative if:

- You are uncertain of the Project Plan, your responsibilities, or the location of hazardous/sensitive areas.
- A previously unidentified resource feature, resource value (e.g. cultural) or sensitive area is found.
- You experience unfavourable weather or site conditions that could cause environmental damage.
- You observe conditions that have the potential for immediate environmental damage.
- You believe the Project Plan will not work.
Purpose and Scope

This EFP applies to all BCTS Licensees, Permittees and Contractors, including their employees, agents, and subcontractors, involved in all phases of harvesting within the scope of the BCTS EMS. It describes procedures to reduce the risk of negative impacts of these field activities on the environment. This EFP does not replace the requirements of legislation, licences, permits and contracts.

Falling

1. **Have a Project Plan.**
2. **Fall next to boundaries** only when boundaries are clearly visible (know where they are).
3. **Use extra caution** when falling adjacent to boundaries and reserves, to minimize damage to standing trees and protect resource features, resource values (e.g. cultural) and sensitive areas.
4. **Follow** stream prescriptions when falling, limbing and bucking adjacent to watercourses.
5. **Know** which streams and gullies require cleaning.
6. **Know** leave-tree, stubbing and retention requirements, and **monitor** your progress to ensure you meet the requirements.

Yarding, Skidding and Forwarding

1. **Have a Project Plan.**
2. If yarding or skidding in steep or gullied terrain, ensure that you **implement** yarding/skidding strategies to minimize impacts to soil productivity and water quality.
3. **Use appropriate methods** to minimize damage to reserve trees (e.g. dispersed retention trees, retention tree patches, etc.).
4. **Know the applicable soil disturbance limits and use appropriate methods** to avoid excessive soil disturbance (e.g. temporary access structures, gouges, ruts, scalps and compacted areas).
5. **Operate** during favourable weather and site conditions.
6. **Know** the stream classifications and implement riparian management area requirements (e.g. machine free zones, riparian reserve zones, stream cleaning, etc.) for the watercourses identified in the Project Plan.
7. **Rehabilitate** excavated and bladed trails, temporary roads, landings, etc., as required. Ensure that rehabilitation activities maintain natural drainage patterns.

Loading, Processing and Hauling

1. **Have a Project Plan.**
2. **Minimize** decking impacts to standing timber and riparian management areas.
3. **Report** to the project supervisor any road conditions which may adversely affect the environment (e.g. siltation of streams, lakes or other water bodies, or deterioration of the road).
Fire Hazard Assessment and Abatement

1. **Complete** Hazard Assessments at prescribed intervals and complete abatement, if required, in accordance with the Wildfire Act and Regulation.

2. If burning is part of the plan for abatement, ensure required **notification** is made, approvals received and conditions followed. Ensure burn area is safe from escape and avoids hazardous or sensitive areas. Monitor burned sites for extinguishment.

STOP WORK
and contact your project supervisor and the BCTS representative if:

- You are uncertain of the Project Plan, your responsibilities, or the location of hazardous/sensitive areas.
- A previously unidentified resource feature, resource value (e.g. cultural) or sensitive area is found.
- You experience unfavourable weather or site conditions that could cause environmental damage.
- You observe conditions that have the potential for immediate environmental damage.
- You believe the Project Plan will not work.
Purpose and Scope
This Environmental Field Procedure (EFP) applies to all BCTS clients (Licensee, Permittee and Contractor workers) and BCTS staff who are responsible for fuel handling within the scope of BCTS EMS program. The purpose of this document is to bring together legislative requirements, industrial standards and best management practices as it relates to fuel handling, storage and transportation. The primary fuel used within the forest industry is diesel fuel found under Class 3, Flammable Liquids. This EFP is intended to help promote good fuel management, and is not intended to supersede legislative requirements or criteria. Applicable Acts and Regulations include: Transportation of Dangerous Goods Act and Regulations, BC Motor Vehicle Act and Regulations, Environmental Management Act and Regulations, Hazardous Products Act and Regulation, Contaminated Sites Act and Regulations, Workers’ Compensation Act and OHS Regulations.

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<td>2</td>
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<tr>
<td>2</td>
<td>Small Mobile (Truck Box) Tanks &lt;450L Ancillary tank located in the box of a pickup truck used to transport, store and dispense fuel</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>Large Mobile Tanks &gt;450 L to 3000L Ancillary tank typically located in the box of a pickup truck used to transport, store and dispense fuel</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>Highway Tanks &amp; TC Portable Tanks, Generally &gt;3000L Used to transport fuel. Sometimes used to store and dispense fuel.</td>
<td>5</td>
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<td>5</td>
<td>Large Stationary Skid Tanks &gt;3000L Used to store and dispense fuel, rarely used to transport fuel</td>
<td>6</td>
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<tr>
<td>6</td>
<td>Definition of Terms In an effort to keep this document short and to the point, some terms and clauses were used that may require further explanation or interpretation. The Definition of Terms is also used to provide examples. Transport Canada contact information</td>
<td>7 to 9</td>
</tr>
<tr>
<td>7</td>
<td>Spill Kit Requirements This section outlines minimum spill kit content requirements for BCTS clients</td>
<td>10</td>
</tr>
</tbody>
</table>
# TABLE #1 SMALL FUEL CONTAINERS (Volumes <230L) Drums, Jerry Cans, Pails, Canisters

<table>
<thead>
<tr>
<th>TYPE</th>
<th>CONDITION, DESIGN &amp; MAINTENANCE</th>
<th>STORING &amp; SECURING</th>
<th>DISPENSING</th>
<th>TRANSPORT (see column 2 for securing details)</th>
<th>PREVENTION &amp; RESPONSE</th>
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<tbody>
<tr>
<td></td>
<td><strong>Legal Requirement</strong></td>
<td><strong>BCTS Requirement</strong></td>
<td><strong>Information</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| **Small Fuel Containers** (Volumes < 230L) | Must be filled and capped so that under normal conditions there will be no leakage that would endanger public or worker safety | Do not store small containers in Riparian Management areas or Marine Environments wherever practicable | Maintain current Safety Data Sheets (SDS) in a location available to worker | Drums must be properly arranged by:  
- Stacking in an upright, vertical position  
- Separating and Protecting through use of boards, stakes or sides on the vehicle to protect the load from moving  
- If multiple containers of Class 3 (diesel or gasoline) products are transported and the combined capacity exceeds 2000L, the following conditions apply:  
   - A shipping document must be completed for the goods hauled  
   - The operator must have TDG training and possess a certificate  
   - The load must have placards on all visible sides  
- Drum transport are exempt from TDG Regs Parts 2, 3, 4 & 7 provided:  
  - Drum residue < 10%  
  - If more than 10 drums then DANGER Placards are required on all four sides  
  - Document the primary class, 'residue drums', and number of drums  
| | Constructions must be specifically designed for the product. | Do not smoke where fuel is stored or dispensed | Do not dispense fuel in Riparian Management areas or Marine Environments wherever practicable | Where dispensing fuel in higher risk areas consider utilizing additional Spill Control and Prevention Measures (see Table #6).  
- not actuated or tampered with  
- shows no obvious physical damage, (i.e. corrosion, leakage, or clogged nozzle) to prevent its operation  
- pressure gauge reading or indicator is in operable range  
- safety seal or pin in place;  
- product id/WHMIS label in place  
- located in appropriate location, and  
- document self-inspections |  
| | Containers less than 30 liters are exempt from TDG requirements but are still governed under WHMIS. | TDG safety marks on the outside of an enclosed unit must be visible if containers are stored within an enclosed unit. | Dispense all flammable and combustible substances only from drums in an upright position |  |  
| | Inspections | WHMIS labeling or appropriate Product Identification is required when storing hazardous products | Do not fill containers beyond their safe filling level (approximate safe level – 90%) |  |  
| | Licensees' Contractors must self inspect containers on a regular basis, (plastic containers usually every 5 years), and replace fatigued containers immediately and document. | WHMIS labeling or appropriate Product Identification is required when storing hazardous products | Store the hose above the pump (and drum) to avoid siphoning. |  |  
| | | Secure | As per manufacturers recommendations, containers must be secured to prevent shifting, swaying, damage or escape from the vehicle | Take reasonable measures to prevent leaks & spills |  
| | | | Tie down straps must have safe combined working load ratings greater than the secured load. |  |  

**Legend**
- n: Non-applicable
- R: Required
### TABLE #2 SMALL MOBILE (TRUCK BOX) TANKS (Volumes: <450L)

<table>
<thead>
<tr>
<th>TYPE</th>
<th>CONDITION, DESIGN, &amp; MAINTENANCE</th>
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<th>DISPENSING</th>
<th>TRANSPORT (see column 2 for securing details)</th>
<th>PREVENTION &amp; RESPONSE</th>
</tr>
</thead>
</table>
|      | ■ Must be filled and capped so that under normal conditions there will be no leakage that would endanger public or worker safety  
 Containers must be in good condition – not damaged, rusting, or leaking  
Construction Standard  
■ Diesel: a spec or non-spec tank may be used. This tank capacity (450L or less) is exempt from the specifications standards under the TDG regulation.  
■ Gasoline: a spec tank is required and must show the spec plate of the design standard.  
■ Spec tanks may include:  
□ UN Standard IBC UN 31A and UN31B IBC Portable Tanks as per CAN/CGSB 43.146 (2002)  
□ ULC/ORD 142.13  
□ All Gasoline spec tanks must be tested and inspected by a Transport Canada (TC) Registered facility every 5 years. Proof that tests and inspections were conducted by a TC Registered facility within the last 5 years must be available upon request.  
Inspections  
 Licensees/Contractors must self inspect tanks on a regular basis, and replace fatigued tanks immediately and document. | ■ Use a pressure relief cap that meets manufacturers design specifications  
 Do not store small mobile tanks in riparian management areas or marine environments wherever practicable  
■ Do not smoke where fuel is stored or dispensed  
Securing  
■ As per manufactures recommendations, tanks must be appropriately secured to prevent shifting, swaying, damage or escape from the vehicle  
■ Tie down straps must have safe combined working load ratings greater than the secured load | ■ Use dispensing pumps designed for the products being handled  
 Use an appropriate hose and nozzle (in accordance with ULC standards) for dispensing fuel  
■ Make sure there is suitable bonding (i.e. wire lined hose) to prevent static charges when dispensing gasoline.  
■ Maintain current SDS in a location available to workers  
Hard Hoses and nozzles must be maintained and not leak.  
 Do not dispense fuel in riparian management areas or marine environments where practicable.  
■ Operators must stay with the nozzle at all times while dispensing fuel  
■ Nozzles must be secured in drip container after use or in an upright position so that it's above the tank.  
□ Close valves when finished dispensing  
□ Store hose in a safe manner to prevent damage and leaks (i.e. coiled on top of tank)  
 Do not fill tanks beyond their safe filling level (approximate safe level – 90%)  
□ Keep fuel and equipment on level ground | □ If multiple tanks of Class 3 product (diesel or gasoline) are carried on the vehicle and the combined capacity exceeds 2000 liters, the following conditions apply:  
□ A shipping document must be completed for the goods hauled  
□ The operator must have a TDG training and possess a valid certificate  
□ The load must be placarded on all visible sides  
Safety Labelling & Spec Plates  
■ WHMIS labeling or appropriate Product Identification is required when storing hazardous products  
Maintain visible safety marks:  
□ Label or placard  
□ UN number and  
□ Shipping name  
TDG safety marks must be visible on the tank or any enclosed storage unit  
Spec plates, decals or associated documentation – (ensuring paperwork is linked to the specific tank) must identify the following:  
□ Container Type & Standard  
□ Manufacturer and Date  
□ Re-certification Date and TC Registered Facility | ■ Take reasonable measures to prevent leaks & spills  
□ Where dispensing fuel in higher risk areas consider utilizing additional Spill Control and Prevention Measures (see Table #6).  
□ Where tanks are stored on the ground, collision protection is required. (see Table #6)  
Fire Control and Response  
□ Maintain and self-inspect one suitable B-C-rated fire extinguisher ensuring its:  
□ not actuated or tampered with  
□ shows no obvious physical damage, (i.e. corrosion, leakage, or dogged nozzle) to prevent its operation  
□ pressure gauge reading or indicator is in operable range  
□ safety seal or pin in place;  
□ product id/WHMIS label in place  
□ located in appropriate location, and  
□ document self-inspections |
TABLE #3  LARGE MOBILE TANKS (Volumes: >450L – 3000L)

<table>
<thead>
<tr>
<th>TYPE</th>
<th>CONDITION, DESIGN, &amp; MAINTENANCE</th>
<th>STORING AND SECURING</th>
<th>DISPENSING</th>
<th>TRANSPORT (see column 2 for securing details)</th>
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<td></td>
<td>Legal Requirement</td>
<td>BCTS Requirement</td>
<td>Information</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Must be filled and capped so that under normal conditions there will be no leakage that would endanger public or worker safety.</td>
<td>Containers must be in good condition – not damaged, rusting, or leaking.</td>
<td>Use a pressure relief cap that meets manufacturers design specifications.</td>
<td>If multiple tanks of Class 3 product (diesel or gasoline) are carried on the vehicle and the combined capacity exceeds 2000 liters, the following conditions apply:</td>
<td>Take reasonable measures to prevent leaks &amp; spills.</td>
</tr>
<tr>
<td></td>
<td>Construction Standard</td>
<td>All Tanks:must be designed, constructed to a mobile tank standard and display a spec plate.</td>
<td>Do not allow vehicles carrying auxiliary fuel in riparian management areas or marine environments wherever practicable.</td>
<td>Do not leave vehicles carrying auxiliary fuel in riparian management areas or marine environments wherever practicable.</td>
<td>Where dispensing fuel in higher risk areas consider utilizing additional Spill Control and Prevention Measures (see Table #6).</td>
</tr>
<tr>
<td></td>
<td>Spec Tanks:</td>
<td>All Tanks: used to transport fuel (regardless of volume) must be designed, constructed to a mobile tank standard and display a spec plate.</td>
<td>Do not smoke where fuel is stored or dispensed.</td>
<td>Operators must stay with the vehicle and the combined capacity does not exceed 2000 liters, the following conditions apply:</td>
<td>Where tanks are stored on the ground, collision protection is required. (see Table #6)</td>
</tr>
<tr>
<td></td>
<td>Non-Spec Tanks may no longer be used.</td>
<td>Use dispensing pumps designed for the products being handled.</td>
<td>If multiple tanks of Class 3 product (diesel or gasoline) are carried on the vehicle and the combined capacity exceeds 2000 liters, the following conditions apply:</td>
<td>Use dispensing pumps designed for the products being handled.</td>
<td>Fire Control and Response</td>
</tr>
<tr>
<td></td>
<td>Inspections</td>
<td>Containers must be in good condition – not damaged, rusting, or leaking.</td>
<td>Make sure there is suitable bonding (i.e. wire lined hose) to prevent static charges when dispensing gasoline.</td>
<td>Maintain current SDS in a location available to workers.</td>
<td>Maintain and self-inspect one suitable B.C.-rated fire extinguisher ensuring it’s:</td>
</tr>
<tr>
<td></td>
<td>All 5-spec tanks (listed above) must be tested and inspected by a Transport Canada (TC) Registered facility every 5 years.</td>
<td>Containers must be in good condition – not damaged, rusting, or leaking.</td>
<td>Do not dispense fuel in riparian management areas or marine environments wherever practicable.</td>
<td>Hose and nozzles must be maintained and not leak.</td>
<td>• not actuated or tampered with</td>
</tr>
<tr>
<td></td>
<td>Proof that tests and inspections were conducted by a TC Registered facility within the last 5 years must be available upon request.</td>
<td>Containers must be in good condition – not damaged, rusting, or leaking.</td>
<td>Operators must stay with the vehicle and the combined capacity does not exceed 2000 liters, the following conditions apply:</td>
<td>Do not dispense fuel in riparian management areas or marine environments wherever practicable.</td>
<td>shows no obvious physical damage, (i.e. corrosion, leakage, or daggod nozzle) to prevent its operation</td>
</tr>
<tr>
<td></td>
<td>Licenses / Contractors must self inspect tanks on a regular basis, and replace fatigued tanks immediately and document.</td>
<td>Containers must be in good condition – not damaged, rusting, or leaking.</td>
<td>Close valves when finished dispensing.</td>
<td>Operators must stay with the vehicle and the combined capacity does not exceed 2000 liters, the following conditions apply:</td>
<td>pressure gauge reading or indicator is in operable range</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Containers must be in good condition – not damaged, rusting, or leaking.</td>
<td>Store hose in a safe manner to prevent damage and leaks (i.e. coiled on top of tank).</td>
<td>Operators must stay with the vehicle and the combined capacity does not exceed 2000 liters, the following conditions apply:</td>
<td>• safety seal or pin in place;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Containers must be in good condition – not damaged, rusting, or leaking.</td>
<td>Close valves when finished dispensing.</td>
<td>Operators must stay with the vehicle and the combined capacity does not exceed 2000 liters, the following conditions apply:</td>
<td>• product id/WHMIS label in place;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Containers must be in good condition – not damaged, rusting, or leaking.</td>
<td>Store hose in a safe manner to prevent damage and leaks (i.e. coiled on top of tank).</td>
<td>Operators must stay with the vehicle and the combined capacity does not exceed 2000 liters, the following conditions apply:</td>
<td>• located in appropriate location, and</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Containers must be in good condition – not damaged, rusting, or leaking.</td>
<td>Do not fill tanks beyond their safe filling level (approximate safe level – 90%)</td>
<td>Operators must stay with the vehicle and the combined capacity does not exceed 2000 liters, the following conditions apply:</td>
<td>• document self-inspections</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Containers must be in good condition – not damaged, rusting, or leaking.</td>
<td>Containers must be in good condition – not damaged, rusting, or leaking.</td>
<td>Operators must stay with the vehicle and the combined capacity does not exceed 2000 liters, the following conditions apply:</td>
<td></td>
</tr>
</tbody>
</table>

Legend

TABLE #3 LARGE MOBILE TANKS (Volumes: >450L – 3000L)
**TABLE #4  HIGHWAY & TC PORTABLE TANKS**
(Fuel Trucks & Pup-Trailers with Volumes > 3000L)

<table>
<thead>
<tr>
<th>TYPE</th>
<th>CONDITION, DESIGN &amp; MAINTENANCE</th>
<th>STORING AND SECURING</th>
<th>DISPENSING</th>
<th>TRANSPORT (see column 2 for securing details)</th>
<th>PREVENTION &amp; RESPONSE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Legal Requirement</strong></td>
<td><strong>BCTS Requirement</strong></td>
<td><strong>Information</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><img src="image" alt="must be filled and capped so that under normal conditions there will be no leakage that would endanger public or worker safety" /></td>
<td><img src="image" alt="construction standard" /></td>
<td><img src="image" alt="legend" /></td>
<td><img src="image" alt="legend" /></td>
<td><img src="image" alt="legend" /></td>
</tr>
<tr>
<td></td>
<td><img src="image" alt="construction standard" /></td>
<td><img src="image" alt="construction standard" /></td>
<td><img src="image" alt="construction standard" /></td>
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</tr>
</tbody>
</table>

**Legend**

- **Legal Requirement**
- **BCTS Requirement**
- **Information**

**Conditions and Design**
- Must be filled and capped so that under normal conditions there will be no leakage that would endanger public or worker safety.

**Construction Standard**
- All Tanks: Used to transport fuel and sometimes to store and dispense fuel. Tanks must be designed, constructed and/or tested to a design standard specification and display a visible and legible specification plate to that standard.
  - TC44 Portable Tanks as per CSA B/626
  - UN Standardized Portable Tanks as per CSA B/625–13 Standard
- Fuel Trucks must meet the following:
  - CSA B/620–03 Highway and Portable Tanks for TDG
  - Spec tank built after 2003 may transport diesel or gasoline.
- Non-Spec Tanks: May no longer be used. Any tank without a spec plate is non-spec.

**Inspections**
- All Highway and Transport Canada (TC), Portable Tanks must be tested and inspected by a TC Registered Facility every five years. Proof that tank tests and inspections were conducted by a TC Registered Facility must be available upon request.
- Licenses/Contractors must self-inspect tanks on a regular basis, and replace fatigued tanks immediately and document.
- Tanks must be in good condition—not damaged, rusting or leaking.

**Storing and Securing**
- Use a pressure relief hatch that meets manufacturers design specifications.
- Do not leave fuel truck or pup trailer in riparian management areas or marine environments wherever practicable.
- Do not smoke where fuel is stored or dispensed.

**Dispensing**
- Use an appropriate hose and nozzle (in accordance with ULC standards) for dispensing fuel.
- Use dispensing pumps designed for the products being handled.
- Make sure there is suitable bonding (i.e. wire lined hose) to prevent static charges when dispensing gasoline.
- Maintain current SDS in a location available to workers.
- Do not dispense fuel in riparian management areas or marine environments wherever practicable.
- Hoses and nozzles must be maintained and not leak.
- Dispensing gasoline fuel directly from a fuel truck into the equipment is NOT permitted.
- Close valves when finished dispensing.
- Operators must stay with the nozzle at all times while dispensing fuel.
- Store hose in a safe manner to prevent damage and leaks (i.e. coiled on top of tank).
- Do not fill containers beyond their safe filling level (approximate safe level – 90%).
- Keep fuel and equipment on level ground.

**Transport**
- Fire Control and Response:
  - Maintain and self-inspect one suitable B.C.-rated fire extinguisher ensuring it’s:
    - not actuated or tampered with
    - shows no obvious physical damage, (i.e. corrosion, leakage, or clogged nozzle) to prevent its operation
    - pressure gauge reading or indicator is in operable range
    - safety seal or pin in place
    - product id/WHMIS label in place
    - located in appropriate location, and
    - document self-inspections.

- Fuel trucks and pup-trailers used to transport products on public roads must meet Motor Vehicle requirements (i.e. GVW, brakes, lights, axles, etc.) and TDG requirements (Placards & Documentation).
- When the total capacity of a fuel tank exceeds 2000 liters, the shipper/driver is required to:
  - Complete a shipping document for the goods hauled or residue last contained.
  - Maintain a valid TDG training certificate.
  - Placard the load on all four sides.
  - Non-Spec tanks may no longer be used.

- Safety Labeling & Spec Plates
  - Maintain visible safety markers:
    - Label or placard and,
    - UN number and,
    - Shipping name.
- TDG Placards must be visible on all four sides.
  - Spec plates, decals or associated documentation (e.g. ensuring paperwork is linked to the specific tank) must identify the following:
    - Container Type & Standard
    - Manufacturer and Date
    - Re-certification Date and TC Registered Facility.

- Take reasonable measures to prevent leaks & spills.
- Where dispensing fuel in higher risk areas consider utilizing additional Spill Control and Prevention Measures (see Table #6).

- Highway and Transport Canada (TC), Portable Tanks must be tested and inspected by a TC Registered Facility every five years. Proof that tank tests and inspections were conducted by a TC Registered Facility must be available upon request.
- Licenses/Contractors must self-inspect tanks on a regular basis, and replace fatigued tanks immediately and document.
- Tanks must be in good condition—not damaged, rusting or leaking.

- Use a pressure relief hatch that meets manufacturers design specifications.
- Do not leave fuel truck or pup trailer in riparian management areas or marine environments wherever practicable.
- Do not smoke where fuel is stored or dispensed.

- Use an appropriate hose and nozzle (in accordance with ULC standards) for dispensing fuel.
- Use dispensing pumps designed for the products being handled.
- Make sure there is suitable bonding (i.e. wire lined hose) to prevent static charges when dispensing gasoline.
- Maintain current SDS in a location available to workers.
- Do not dispense fuel in riparian management areas or marine environments wherever practicable.
- Hoses and nozzles must be maintained and not leak.
- Dispensing gasoline fuel directly from a fuel truck into the equipment is NOT permitted.
- Close valves when finished dispensing.
- Operators must stay with the nozzle at all times while dispensing fuel.
- Store hose in a safe manner to prevent damage and leaks (i.e. coiled on top of tank).
- Do not fill containers beyond their safe filling level (approximate safe level – 90%).
- Keep fuel and equipment on level ground.
# TABLE #5 LARGE STATIONARY SKID TANKS (Generally Volumes > than 3000L)

<table>
<thead>
<tr>
<th>TYPE</th>
<th>CONDITION, DESIGN &amp; MAINTENANCE</th>
<th>STORING AND SECURING</th>
<th>DISPENSING</th>
<th>TRANSPORT (see column 2 for securing details)</th>
<th>PREVENTION &amp; RESPONSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spec Tanks:</td>
<td>used for diesel or gas and will generally have one of the following markings:</td>
<td>Use a pressure relief cap that meets manufacturers design specifications</td>
<td>Use dispensing pumps designed for the products being handled</td>
<td>When moving a skid tank (with or without fuel), having a total capacity of diesel greater than 2000 liters you must follow TDG Regulations</td>
<td></td>
</tr>
<tr>
<td>- ULC-S601 AST Horizontal Tanks</td>
<td></td>
<td>Store nozzle &amp; hose in a safe manner to prevent damage and leaks (i.e. on a retractor, hose reel or coiled)</td>
<td>Use an appropriate hose and nozzle (in accordance with ULC standards) for dispensing fuel</td>
<td>• Complete a shipping document for the goods hauled or remaining in the tank</td>
<td></td>
</tr>
<tr>
<td>- ULC-S653 AST Steel Tanks</td>
<td></td>
<td>Do not place stationary skid tanks in riparian management areas or marine environments, unless no other area is practicable.</td>
<td>Make sure there is suitable bonding to prevent static charges when dispensing gasoline</td>
<td>• Maintain a valid TDG training certificate</td>
<td></td>
</tr>
<tr>
<td>- ULC-S653 AST Steel Tanks</td>
<td></td>
<td>Do not smoke where fuel is stored or dispensed</td>
<td>Maintain current SDS in a location available to workers</td>
<td>• Ensure that all conditions of the Equivalent Level of Safety Permit are met (see table #6)</td>
<td></td>
</tr>
<tr>
<td>- CAN/ULC-S643-M</td>
<td></td>
<td></td>
<td>Where tanks are stored on the ground, collision protection is required. (see Table #6)</td>
<td>Applications being considered for stationary tanks (i.e. non-mobile tanks) and must:</td>
<td></td>
</tr>
<tr>
<td>- ULC-C142.16 Rectangular Steel Tank</td>
<td></td>
<td></td>
<td>• Be emptied (5% or less) prior to moving</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- ULC-C142.17 Vertical Steel Tank</td>
<td></td>
<td></td>
<td>• Be moved only from point to point in accordance with the Equivalent Level of Safety Permit (see Table #6 for details)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- ULC-S630 AST Vertical Tanks</td>
<td></td>
<td></td>
<td>Fire Control and Response</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Spec Tanks:</td>
<td>All non-spec tanks must be taken out of operation. Any tank without a spec plate is non-spec.</td>
<td>All tanks must be designed, constructed to a design standard specification and must bear a visible and legible specification plate to that standard.</td>
<td>As per manufacturers recommendations, tanks must be appropriately secured to the skid to prevent shifting, swaying, damage or escape and.</td>
<td>Maintain and self-inspect one suitable BC-rated fire extinguisher ensuring it’s:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>All stationary tanks are not designed as mobile tanks. Prior to moving, the tank (usually a ULC-S601 spec tank) must be emptied to the maximum extent and in accordance with the Equivalent Level of Safety Permit (see table #6 for details).</td>
<td>Stationary Tanks are not designed as mobile tanks. Prior to moving, the tank (usually a ULC-S601 spec tank) must be emptied to the maximum extent and in accordance with the Equivalent Level of Safety Permit.</td>
<td>• Do not fill tanks beyond their safe filling level (approximate safe level – 90%)</td>
<td></td>
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</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Close valves when finished dispensing</td>
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<td></td>
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<tr>
<td>Inspections</td>
<td></td>
<td></td>
<td>• Do not fill tanks beyond their safe filling level (approximate safe level – 90%)</td>
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<td></td>
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<td>• Tank must be mounted to a fire-resistant cradle and skid</td>
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<td></td>
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<td></td>
<td>• When moving a skid tank (with or without fuel), having a total capacity of diesel greater than 2000 liters you must follow TDG Regulations</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Close valves when finished dispensing</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Take reasonable measures to prevent leaks &amp; spills</td>
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<td></td>
<td></td>
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<td></td>
<td></td>
<td>Where dispensing fuel in higher risk areas consider utilizing additional Spill Control and Prevention Measures (see Table #6).</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Maintain visible safety marks:</td>
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<td></td>
<td>• Label or placard,</td>
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<td></td>
<td></td>
<td></td>
<td>• Shipping name</td>
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<td></td>
<td></td>
<td></td>
<td>• DG Placards must be visible on all fours sides</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• WHMIS labeling or appropriate Product Identification is required when storing hazardous products</td>
</tr>
</tbody>
</table>

**Legend**
- Legal Requirement
- BCTS Requirement
- Information

**Notes:**
- Spec Tanks: used for diesel or gas and will generally have one of the following markings:
  - ULC-S601 AST Horizontal Tanks
  - ULC-S653 AST Steel Tanks
  - ULC-S653 AST Steel Tanks
  - CAN/ULC-S643-M
  - ULC-C142.16 Rectangular Steel Tank
  - ULC-C142.17 Vertical Steel Tank
- Non-Spec Tanks: All non-spec tanks must be taken out of operation. Any tank without a spec plate is non-spec. All tanks must be designed, constructed to a design standard specification and must bear a visible and legible specification plate to that standard.
- Stationary Tanks are not designed as mobile tanks. Prior to moving, the tank (usually a ULC-S601 spec tank) must be emptied to the maximum extent and in accordance with the Equivalent Level of Safety Permit (see table #6 for details).
- Inspections
  - Licensees/Contractors must inspect tanks on a regular basis, and replace fogged tanks immediately and document.
### Table #6 Definition of Terms

<table>
<thead>
<tr>
<th>Additional Spill Control Prevention</th>
<th>Additional Spill Control Prevention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Re-assess the environmental risk and implement additional control measures</td>
<td></td>
</tr>
<tr>
<td>Review the BCTS Fuel Handling Environmental Field Procedure 06 to ensure procedures address the risk factors</td>
<td></td>
</tr>
<tr>
<td>Review Spill Response awareness and preparedness, conduct a spill drill and increase monitoring of dispensing area locations</td>
<td></td>
</tr>
<tr>
<td>Enhance minimum Spill Kit requirements as outlined in Table #7</td>
<td></td>
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<tr>
<td>Move the fuel storage to a lower risk location</td>
<td></td>
</tr>
<tr>
<td>Add secondary containment or double-walled containers</td>
<td></td>
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<tr>
<td>Collision Protection e.g. guard logs</td>
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</tr>
<tr>
<td>Tarps for containment</td>
<td></td>
</tr>
<tr>
<td>Materials to block culverts when needed</td>
<td></td>
</tr>
<tr>
<td>Sandbags and PVC pipe for underflow containment</td>
<td></td>
</tr>
<tr>
<td>Sandbags for diversions and upstream eddy containment</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>B:C Fire Extinguisher</th>
<th>B:C Fire Extinguisher</th>
</tr>
</thead>
<tbody>
<tr>
<td>The number represents the size of fire the extinguisher will put out under normal use (non-expert)</td>
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</tr>
<tr>
<td>An 80 rated fire extinguisher will cover 15.25 square meters</td>
<td></td>
</tr>
<tr>
<td>A 40 rated fire extinguisher will cover 9.15 square meters. Therefore two 40 rated fire extinguishers will cover the same area as one 80 rated fire extinguisher</td>
<td></td>
</tr>
<tr>
<td>The B:C represents the type of fires: “B” fire is for flammable liquids, while a “C” fire is for electrical</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bioremediation Product</th>
<th>Bioremediation Product</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any form of nutrients, bacteria or enzymes that when added and mixed with the soil, will enhance the biological breakdown of petroleum hydrocarbon contaminated soil. This product is intended for small leaks, drips and spills that are below the reportable quantities and not impacting surface water or groundwater</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Breakaway valve</th>
<th>Breakaway valve</th>
</tr>
</thead>
<tbody>
<tr>
<td>An in-line device containing a flutter valve that, upon accidental separation of the hose, will automatically close and prevent fuel from being discharged</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Collision Protection</th>
<th>Collision Protection</th>
</tr>
</thead>
<tbody>
<tr>
<td>A barrier sufficient to alert the operator and prevent accidental damage to the container and release of the product.</td>
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</tbody>
</table>

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<thead>
<tr>
<th>Enclosed space</th>
<th>Enclosed space</th>
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</thead>
<tbody>
<tr>
<td>Any structure enclosed by three sides</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Equivalent Spill Response Equipment</th>
<th>Equivalent Spill Response Equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>In an attempt to provide some flexibility in the minimum requirements of a spill kit, the following equivalent standards are listed. The intention of this equivalent list is to provide alternatives where conditions might be warranted:</td>
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<tr>
<td>o 5 Absorbent pads (for petroleum hydrocarbons) = 2L of Sphag Sorb (peat moss)</td>
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</tr>
<tr>
<td>o 5 Absorbent pads (for antifreeze) = 2L of Sphag Sorb (peat moss)</td>
<td></td>
</tr>
<tr>
<td>o 5 Absorbent pads (for solvents) = 2L of Sphag Sorb (peat moss)</td>
<td></td>
</tr>
<tr>
<td>o Plug-N-Dike = Bentonite clay or “drillers clay”</td>
<td></td>
</tr>
<tr>
<td>o One large heavy duty plastic bag = One five (5) gallon pail</td>
<td></td>
</tr>
<tr>
<td>o Containment boom = log boom with tarp “skirt”</td>
<td></td>
</tr>
</tbody>
</table>
Table #6 Definition of Terms

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equivalent Level of Safety (Permit)</td>
<td>Permit No.: SH7544 (Ren 5)</td>
</tr>
<tr>
<td></td>
<td>Permit Holder: The valid members of The Forest Products Association of Canada</td>
</tr>
<tr>
<td></td>
<td>Mode of Transport: Road</td>
</tr>
<tr>
<td></td>
<td>Issue Date:</td>
</tr>
<tr>
<td></td>
<td>Expiry Date:</td>
</tr>
<tr>
<td><strong>CONDITIONS</strong></td>
<td></td>
</tr>
<tr>
<td>This Permit for Equivalent Level of Safety authorizes the valid members of The Forest Products Association of Canada to handle, offer for transport and transport and authorizes any person to handle or transport on behalf of the permit holder, by road vehicle, dangerous goods that are Class 3, Packing Group II or Packing Group III in means of containment that do not comply with Part 5 of the Transportation of Dangerous Goods (TDG) Regulations if:</td>
<td></td>
</tr>
<tr>
<td>(a) The means of containment:</td>
<td></td>
</tr>
<tr>
<td>(i) is not intended for the transportation of dangerous goods and the presence of dangerous goods is due only to the use of the means of containment for the processing, storage, or use of the dangerous goods at fixed locations;</td>
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</tr>
<tr>
<td>(ii) prior to moving, is emptied to the maximum extent possible, and the residual amount of the dangerous goods never exceeds the lesser of the following volume in content when in transport:</td>
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</tr>
<tr>
<td>(A) 500 liters or</td>
<td></td>
</tr>
<tr>
<td>(B) 5% of the capacity of the means of containment</td>
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</tr>
<tr>
<td>(iii) is designed, constructed, closed, secured and maintained so that under normal conditions of transport, including handling, there will be no accidental release of dangerous goods that could endanger public safety; and,</td>
<td></td>
</tr>
<tr>
<td>(iv) when inverted, will not release dangerous goods;</td>
<td></td>
</tr>
<tr>
<td>(b) The means of containment is loaded and secured on the means of transport in such a way as to prevent, under normal conditions of transport, damage to the means of containment or to the means of transport that could lead to an accidental release of the dangerous goods;</td>
<td></td>
</tr>
<tr>
<td>(c) The permanent shipping document that accompanies the dangerous goods includes the following information legibly and indelibly printed: “Dangerous Goods Permit No. by road vehicle or its French equivalent;</td>
<td></td>
</tr>
<tr>
<td>(d) Equipment used to heat and circulate production fluids such as petroleum crude oil, in oilfield applications are excluded from the application of this permit.</td>
<td></td>
</tr>
<tr>
<td><strong>Note:</strong> The issuance of this Permit for Equivalent Level of Safety in no way reduces the permit holder’s responsibility to comply with any other requirements of the Transportation of Dangerous Goods Regulations not specifically addressed in this Permit.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel Storage Facility</td>
<td>Any location where fuel in excess of 500 litres is stored on a BCTS tenure</td>
</tr>
<tr>
<td>Large Means of Containment</td>
<td>A means of containment with a capacity greater than 450 litres. For example, a highway cargo tank, large slip tank etc.</td>
</tr>
</tbody>
</table>
**Table #6 Definition of Terms**

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety Data Sheets (SDS)–formerly MSDS</td>
<td>SDS are summary documents that provide information about the hazards of a product and advice about safety precautions under the Workplace Hazardous Materials Information System (WHMIS).</td>
</tr>
<tr>
<td>Plug-N-Dike</td>
<td>Commercial product name for bentonite clay also known as “drillers clay”. It is not the intention for BCTS to endorse a single product name over other products of a similar and equal nature.</td>
</tr>
<tr>
<td>Small Means of Containment</td>
<td>A means of containment with a capacity less than or equal to 450 litres. For example, a drum, jerry cans, or intermediate bulk container.</td>
</tr>
<tr>
<td>Spec Tank</td>
<td>A “Spec Tank” or “Specification Tank” is a means of containment that complies with one of the specifications set out in one of the Safety Standards referred to in Part 5 of the TDG regulations. An example of a &quot;spec tank&quot; would be a TC406 highway tank meeting all of the TC406 specification requirements described in CSA Standard B620-03 Highway Tanks and Portable Tanks for the Transportation of Dangerous Goods.</td>
</tr>
<tr>
<td>TC</td>
<td>Transport Canada: Federal Agency that oversees the transportation of dangerous goods on land, sea and air</td>
</tr>
<tr>
<td>TDG</td>
<td>Transportation of Dangerous Goods Regulation</td>
</tr>
<tr>
<td>ULC</td>
<td>Underwriters Laboratory of Canada (Engineering Standards) Mobile tanks built to ULC Standards (142.13) have been replaced by the Canadian General Standards Board (CGSB) Standard (43.146)</td>
</tr>
<tr>
<td>UN Number</td>
<td>United Nations Number: Used to identify a specific dangerous good. Diesel: UN 1202; Gasoline UN 1203</td>
</tr>
</tbody>
</table>
| Workplace Hazardous Materials Information System (WHMIS) Labelling & product identification | Hazardous products in the workplace must be identified through one of the following means:  
  - Supplier label  
  - Workplace Label (attached when no supplier label was provided or the supplier label is lost or removed)  
    - Name of the product  
    - Safety precautions  
    - Reference to SDS  
  - Product Identifier (name of the product, color coding, etc) |

**TRANSPORT CANADA CONTACT INFORMATION**

Transport Canada welcomes your questions, comments and suggestions. You can contact them by e-mail, mail or telephone and they will address your concerns as quickly as possible. See website link below for details!

http://www.tc.gc.ca/eng/contact-us.htm

Leak Test and Inspection Facilities for Highway and TC Portable Tanks, (Registered per Standard CSA B620) can be found at the Transport Canada website link below!

### Table #7

#### SPILL KIT (Minimum Requirements)

<table>
<thead>
<tr>
<th>In Equipment / Machinery (excavators, skidders)</th>
<th>Vehicles carrying auxiliary fuel (e.g. pick-up truck box tanks or multiple small containers)</th>
<th>Stationary or Mobile Fuel Storage &amp; dispensing (tanks or multiple-drum caches)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spill kits must be present on equipment, (appropriate for type and potential size of spill).</td>
<td>Spill kits must be present in vehicles transporting and dispensing fuels</td>
<td>Spill kits must be present at points where fuel is dispensed.</td>
</tr>
<tr>
<td>• Spill kits must include:</td>
<td>• Spill kits must include a minimum of:</td>
<td>• Spill kits must include a minimum of:</td>
</tr>
<tr>
<td>o One large heavy duty plastic bag or other suitable container</td>
<td>o 3 - Heavy duty plastic bags or suitable container(s),</td>
<td>o Five large heavy duty plastic bags, or one open topped containment drum (or equivalent),</td>
</tr>
<tr>
<td>o Absorbent pads (or equivalent absorbent material)</td>
<td>o 10 - absorbent pads (or equivalent absorbent material) appropriate for the type of spill,</td>
<td>o 20 absorbent pads (or equivalent absorbent material) appropriate for the type of spill,</td>
</tr>
<tr>
<td>• Personal protective safety gear as required for the type of spill</td>
<td>o 3 – 3”x 48” absorbent booms/ socks,</td>
<td>o 6 – 3”x 48” absorbent booms/ socks,</td>
</tr>
<tr>
<td></td>
<td>o bioremediation product,</td>
<td>o Two 10’ linkable marine booms (if near marine operations),</td>
</tr>
<tr>
<td></td>
<td>o One shovel</td>
<td>o bioremediation product,</td>
</tr>
<tr>
<td></td>
<td>o A container of emergency tank sealant (i.e. Plug-N-Dike, Seal-it or equivalent)</td>
<td>o One container of emergency tank sealant (i.e. Plug-N-Dike or equivalent),</td>
</tr>
<tr>
<td></td>
<td>• Personal protective safety gear as required for the type of spill</td>
<td>o One shovel</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Personal protective safety gear as required for the type of spill</td>
</tr>
</tbody>
</table>

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**STOP WORK**

**and contact your project supervisor and the BCTS representative if:**

- You are uncertain of the project plan, your responsibilities, or the location of hazardous/sensitive areas.
- A previously unidentified resource feature, resource value (e.g. cultural) or sensitive area is found.
- You experience unfavorable weather or site conditions that could cause environmental damage.
- You observe conditions that have the potential for immediate environmental damage.
- You believe the project plan will not work.
Key Sections of EFP-06

• Truck Box (Slip Tanks) and other large portable tanks--230 to 3000 liters (EFP-06 Table #2 and #3)
  - non-specification tanks can only be used for diesel in the 230L to 450L volume range and;
  - tanks for diesel and gasoline in the >450L to 3000L volume range must be specification containers and tested by a Transport Canada Registered Facility every 5 years;

• Large (double walled) Stationary Skid Tanks
  - EFP-06 Table #5

• Spill Kits
  - EFP-06 Table #7
Truck Box Slip Tanks

- Spill Kit
- Tank secured to prevent movement
- Wetting pump
- Proper fuel dispensing
- Spec. Plate
- TDG Label
- WHMIS Label
- All tanks >450L must be tested by a Transport Canada Registered Facility every 5 years.

- Spill Containment
- Fire Extinguisher
- Options

Drip Containment
Large Double Walled Stationary Skid Tanks

- Positive Containment Check
- Dip Stick Port
- ULC-S601 Spec Plate
- TDG, WHMIS and Safety Labels
- Vacuum Gauge
- Guard Log
- Drip Containment Options
- Spill Kit
- Fire Extinguisher(s)
- Dip Stick Port
Introduction

Species of Management Concern are identified as potential environmental impacts associated with various Kootenay Business Area activities under its Environmental Management System (EMS). In addition certification under the Sustainable Forestry Initiative standard requires a program to promote biological diversity such as species at risk.

Apart from the certification programs, BCTS and its Timber Sale Licensees, Permittees and Contractors are required to meet various federal and provincial legislative requirements, such as the Canadian Species at Risk Act, BC Wildlife Act and Forest and Range Practices Act, which relate to the management of wildlife and ecosystems. This document provides guidance to LPCs in managing the species of management concern.

Procedures

Pre-work (BCTS staff and LPC personnel)
- Review any operational requirements/constraints specific to the activity/location as identified in the Site Plan.
- Review wildlife (bird, mammal & amphibian) species listed in the 2014 Species of Management Concern in the Kootenay Business Area field guide. (It was decided to focus identification and management on only wildlife species at the operational level as these are the species more likely to be observed by forest workers.)
- Review notification requirements under the Notification section.

Inspections (BCTS Field Team staff)
- Were any Species of Management Concern identified during operations? If yes, follow procedures under Notification.
- Check client awareness/conformance to specific operational requirements/constraints.

Notification of sightings of wildlife species of concern (all staff and LPC personnel)
Where a Species of Management Concern is sighted in the field:
- Notify BCTS Project Supervisor ASAP.
- For observations, note (at the minimum):
  - Location (gps coordinates or sufficient information to locate on a map) of observation
  - Date of observation
  - Species
  - Number of individuals seen or heard.
- Other information that is useful is:
  - Name and contact (phone/email) information of observer
  - Habitat (plant or special features of observation location),
  - Land status of observation (e.g. crown, federal, private)
  - Adjacent landscape (e.g. disturbance, roads)
  - Condition of habitat (measure of the quality of habitat of observation)
  - Health of species (e.g. live, dead, injured/sick). If possible take a picture of the species and make field notes.
- This information is then forwarded to BCTS Project Supervisor.
- BCTS Project supervisor and Field Team/Planning staff will recommend appropriate site level measures, which may involve engaging a Qualified Professional to assess and indicate a course of action.

BCTS Project Supervisor will submit the information collected to the BC Conservation Data Centre through the following website: www.env.gov.bc.ca/wildlife/wsi/incidental_obs.htm. Please print a copy of the report pages, scan to .pdf with the date (e.g. Western Toad_Aug8-2016.pdf) and file it into the following directory for our records: K:\TSO\Forest_Certification\Certification_General\SAR\Wildlife Incidental Observation Forms.
Purpose and Scope

This EFP applies to BCTS Staff, Licensee, Permittee and Contractor workers involved in forest practices within the scope of the BCTS EMS. It describes specific requirements to prevent the introduction or spread of invasive plants. This EFP does not replace the requirements of legislation, licences, permits and contracts.

Identification and Reporting

- Identify using the BCTS information Package and report identified invasive plants by reporting to BCTS staff representative or on line http://www.for.gov.bc.ca/hra/Plants/application.htm and providing a report, when required, containing the invasive plant information.

Inspecting and Cleaning

- Know the presence or absence of invasive plants and the requirements for removal of plant and soil materials from vehicles, mechanized equipment, culverts, bridges and cattle-guards.
- Prior to being transported to or from a BCTS work site, measures will be taken for removal of plant and soil materials from mechanized equipment.

Grass Seeding

- Roads, roadside and landing related disturbances and rehabilitation areas will be grass seeded, with prescribed Canada Common No.1 seed mixes, following the timelines and conditions specified.
**Roadside Residue Handling**

**GRINDING**
- **<10%:** Pile for grinding (above)
- **10-15%:** Pile with secondary harvester agreement only.
- **>15%:** Pile for burning if 15% pitches are longer than 50 metres

**IN-WOODS CHIPPING**
- **<10%:** Pile for in-woods chipping (above)
- **10-15%:** Pile with secondary harvester agreement only.
- **>15%:** Pile for burning

**UNPROCESSED COLLECTION**
- **<10%:** Pile for unprocessed collection (above)
- **10-15%:** Pile with secondary harvester agreement only.
- **>15%:** Pile for burning if 15% pitches are longer than 50 metres

**CUTSLOPE HEIGHT PILING INSTRUCTIONS**
- **<3 metres:** Pile for grinding (above)
- **3 to 5 metres:** Pile with secondary harvester agreement only.
- **>5 metres:** Pile for burning

**ROAD GRADE PILING INSTRUCTIONS**
- **<10%:** Pile for grinding (above)
- **10-15%:** Pile with secondary harvester agreement only.
- **>15%:** Pile for burning if 15% pitches are longer than 50 metres
Best Piling Practises

AVOID CREATING PILE CONTAMINATION

Dirt and sand  Rock  Metal  Snow

PILE RESIDUES HIGHER IF SECONDARY HARVEST TO OCCUR IN WINTER
The 2015-2019 SFI Forest Management Standard is based on principles supported by an array of objectives, performance measures and indicators. The purpose of this document is to provide BCTS clients (supervisors/workers) with a general awareness of the principles of the SFI standard, including SFI basic training requirements in a tailgate training format. To learn more about the SFI organization and its standards go to: http://www.sfiprogram.org/

Principles of the SFI Forest Management Standard

Sustainable Forestry

- Forest Management is a balance of social, economic and environmental values now and in the future
- Balancing harvesting with the needs of other values like water, plants, animals, and ecological communities and the capacity of the land to grow trees

Forest Productivity and Health

- Protect soils because productive soils support ecological values including growing trees
- Know the applicable soil disturbance limits and use appropriate methods to avoid excessive soil disturbance
- Become familiar with applicable invasive plants in your area and prevent/minimize their introduction and spread
- Prevent forest fires

Protection of Water Resources

- Protect the ecological integrity of rivers, streams, lakes, wetlands and other riparian areas
- Ensure that forest practices do not degrade water quality values through the introduction of soil/silt; petrochemical products like hydraulic fluid, oil, gas, and diesel; and other chemicals used in forest management activities; e.g., herbicides
- Maintain the water’s natural drainage patterns to the fullest extent possible and re-establish natural drainage patterns upon completion of forest management activities
- Follow wet weather shutdown procedures where they exist
- Do not disrupt the natural rate and timing of water flow through road construction or other forest management activities
- Follow BCTS Environmental Field Procedures (EFPs) and any local Water Quality Best Management Practices (BMPs) applicable to your forest management activities

Protection of Biological Diversity

- Know that Species at Risk (SAR) include plants, animals, and ecological communities
- Know what SAR exist, or could exist, in areas associated with your forest management activities
- Become familiar with Project Plans for forest operations to understand how to manage for SAR
- Know about and protect biologically significant sites in or around areas of proposed forest management activities; e.g., parks, ecological reserves, old growth management areas, wildlife habitat areas, etc.
- Maintain Wildlife Tree Retention Areas (WTRAs) and other stand-level retention requirements

Aesthetic Values and Recreation

- Implement Project Plans for forest operations to ensure that visual values on the landscape are maintained
- Prevent or mitigate potential negative impacts to recreational opportunities as a result your activities
Protection of Special Sites
- Know about geologically (i.e. Karst) or culturally (i.e. historic, First Nations traditional use) significant sites in or around areas of proposed forest management activities in order to protect their unique qualities
- EFPs require that operators stop work and contact their project supervisor and the BCTS representative if a previously unidentified resource feature, resource value or sensitive area is found.

Efficient Use of Fiber Resources
- Ensure efficient utilization of harvested timber, minimize waste

Recognize and Respect Indigenous Peoples’ Rights
- Understand and respect traditional forest-related knowledge, including non-timber forest products of value to indigenous peoples
- Identify and protect spiritually, historically or culturally important sites

Legal and Regulatory Compliance
- Know the laws applicable to your activities (See http://www.bclaws.ca/legallinks.html)
- Make sure your activities are consistent with Project Plans that guide your forestry management activities
- Follow applicable Safety/Worksafe BC laws and regulations
  - Be familiar with safety hazards in the workplace, your Emergency Response Plan and Safe Work Procedures
  - Use appropriate Personal Protective Equipment
  - Operate machinery within the bounds of manufacturer’s specifications and limitations
  - Be aware of the safety of yourself and your fellow workers at all times
  - Know what safety issues to report (hazards, close calls or accidents)
  - Follow-up with safety corrective actions

Training and Education
- Commit to continuous learning in the areas in which you are involved in forestry activities
- Understand what aspects of your job have the greatest environmental impacts and then learn how to implement new procedures, techniques or technology to minimize potential impacts
- Ensure that supervisors have completed BCTS EMS/SFM Awareness training and show documentation to BCTS
- Train your crews and maintain training records

Continuous Improvement
- Monitor and inspect your work
- Follow-up on corrective and preventative actions
- Participate in internal and external audits
- Report project changes and inconsistent forest practices
- Plan-Do-Check-Respond (Principles of our EMS program)
- Follow EFPs and the environmental Emergency Response Plan (eERP)

If you suspect that forest practices are not meeting the SFI principles you are encouraged to submit a complaint as described on the Western Canadian SFI Implementation Committee (WCSIC) Inconsistent Practices website. To learn more about WCSIC, or how to file a complaint, please refer to the WCSIC ‘Procedure for Addressing Allegations of SFI Non-Conformance’ at the following web address: http://www.wcsic.ca/Inconsistent/Practices.php
EMS INCIDENT REPORTING REQUIREMENTS

1. Emergency Response Incidents
   - **Fire**: Any uncontrolled fire related to BCTS activities
   - **Spills**: Any spill exceeding BCTS reportable levels or any amount spilled into or immediately adjacent to a stream, lake or running water.
   - **Erosion/Landslide events**: Any emergency situations or potential emergency exists, abnormal movement has or is occurring, abnormal sedimentation, a volume of material greater than 250 m$^3$ has moved or is at imminent risk of movement, or a land area greater than 0.25 ha is disturbed through erosion processes.

2. **Potential Non-Compliance**:
   - In the opinion of the person reporting, legislation and regulation has been violated and there may be an agency investigation to determine fact and possible enforcement action.

3. **Significant Non-conformance**:
   - An occurrence or event that has or will likely result in a negative impact to a significant environmental aspect and cannot be immediately rectified
   - Where the EMS program has been severely compromised and or a “Notice to Comply” has been issued at the discretion of local management. This includes; repeated non-conformances that may become significant.

<table>
<thead>
<tr>
<th>Reportable Levels</th>
<th>Substances</th>
<th>BCTS</th>
<th>PEP</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Antifreeze</td>
<td>5 litres</td>
<td>5 kilograms</td>
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<tr>
<td></td>
<td>Diesel fuel</td>
<td>25 litres</td>
<td>100 litres</td>
</tr>
<tr>
<td></td>
<td>Gasoline (auto &amp; saw)</td>
<td>25 litres</td>
<td>100 litres</td>
</tr>
<tr>
<td></td>
<td>Greases</td>
<td>25 litres</td>
<td>100 litres</td>
</tr>
<tr>
<td></td>
<td>Hydraulic Oil</td>
<td>25 litres</td>
<td>100 litres</td>
</tr>
<tr>
<td></td>
<td>Lubricating Oils</td>
<td>25 litres</td>
<td>100 litres</td>
</tr>
<tr>
<td></td>
<td>Methyl Hydrate</td>
<td>5 litres</td>
<td>5 kilograms</td>
</tr>
<tr>
<td></td>
<td>Paints &amp; Paint Thinners</td>
<td>25 litres</td>
<td>100 litres</td>
</tr>
<tr>
<td></td>
<td>Solvents</td>
<td>25 litres</td>
<td>100 litres</td>
</tr>
<tr>
<td></td>
<td>Pesticides</td>
<td>1 kilogram</td>
<td>1 kilogram</td>
</tr>
<tr>
<td></td>
<td>Explosives</td>
<td>Any</td>
<td>Any</td>
</tr>
</tbody>
</table>
### BC Timber Sales Sustainable Forest Management System

- Allows BCTS to be **certified** to the ISO 14001 and SFI standards

**Before starting work know about:**

<table>
<thead>
<tr>
<th>1. Sustainable Forest Management Policy.</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ complying with the law,</td>
</tr>
<tr>
<td>✓ continual improvement</td>
</tr>
<tr>
<td>✓ preventing or minimizing environmental impacts</td>
</tr>
<tr>
<td>✓ practice sustainable forestry (social, economic, environmental)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2. Significant Environmental Aspects for your work area</th>
</tr>
</thead>
<tbody>
<tr>
<td>• riparian areas, fuel spills, soil, fire, water, forest health, habitat, species at risk, leave tree, sensitive areas</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3. Environmental Field Procedures (EFP’s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Know where they are and which EFP’s apply to your task</td>
</tr>
<tr>
<td>• EFP #1 for all workers</td>
</tr>
<tr>
<td>• EFP #2 for supervisors</td>
</tr>
<tr>
<td>• EFP#3 Planning and Development</td>
</tr>
<tr>
<td>• EFP#4 Roads Bridges and Major Culverts</td>
</tr>
<tr>
<td>• EFP#5 Harvesting</td>
</tr>
<tr>
<td>• EFP#6 Fuel Handling</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4. Emergency Response Plan (ERP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Your ERP roles and responsibilities</td>
</tr>
<tr>
<td>• Be prepared to for emergencies i.e fire, spills, erosion and water disruption events</td>
</tr>
<tr>
<td>• Know where it is on the job site and how to respond</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>5. Stop Work Procedures</th>
</tr>
</thead>
<tbody>
<tr>
<td>• If not sure <strong>Stop Work</strong> and ask (see EFPs)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>6. What to Report</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Hazardous Material Spills and Uncontrolled Fires</td>
</tr>
<tr>
<td>• Erosion / Landslide and Water disruption Events</td>
</tr>
<tr>
<td>• Alleged non-compliances and significant non-conformances</td>
</tr>
<tr>
<td>• Unidentified Resource Features</td>
</tr>
<tr>
<td>• Species at risk sightings and identified invasive plants</td>
</tr>
<tr>
<td>• Changes to Project Plan</td>
</tr>
<tr>
<td>• Safety Hazards, Close calls or Accidents</td>
</tr>
</tbody>
</table>

8/8/2016