



BC Timber Sales
Environmental Management System
ENVIRONMENTAL FIELD PROCEDURE
EFP 06 FUEL HANDLING

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 (UN1202) 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.

Table	Contents	Page #
1	Small Fuel Containers <230 L Includes drums, pails and canisters typically used to transport, store, and dispense small quantities of fuel, oil, solvents, and antifreeze	2
2	Small Mobile (Truck Box) Tanks ≤450L Ancillary tank located in the box of a pickup truck used to transport, store, and dispense fuel	3
3	Large Mobile Tanks >450 L to ≤3000L Ancillary tank typically located in the box of a pickup truck used to transport, store, and dispense fuel	4
4	Highway Tanks & TC Portable Tanks, generally >3000L Used to transport fuel. Sometimes used to store and dispense fuel.	5
5	Large Stationary Skid Tanks >3000L Used to store and dispense fuel, rarely used to transport fuel	6
6	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	7 to 9 9
7	Spill Kit Requirements This section outlines minimum spill kit content requirements for BCTS clients	10

2021 Changes in Red Text



BC Timber Sales
Environmental Management System
ENVIRONMENTAL FIELD PROCEDURE
EFP 06 FUEL HANDLING

TABLE #1 SMALL FUEL CONTAINERS (Volumes <230L) Drums, Jerry Cans, Pails, Canisters		Legend			
		■ Legal Requirement	☑ BCTS Requirement		
TYPE	CONDITION, DESIGN & MAINTENANCE	STORING & SECURING	DISPENSING	TRANSPORT (see column 2 for securing details)	PREVENTION & RESPONSE
SMALL FUEL CONTAINERS (Volumes < 230L)	<ul style="list-style-type: none"> ■ Must be designed, constructed, filled, closed, secured and maintained so under normal conditions of handling and transport there will be no accidental release of dangerous goods that would endanger public or worker safety. ☑ Containers must be in good condition – not damaged, rusting or leaking. ■ Jerry cans (<150L) have a lifespan of 60 months from date of manufacture but may be used for 120 months if: --Jerry cans are part of a fleet registered with TC; --Used only for Class 3, PGII or PGIII products; --Not damaged, cracked, deformed or leaking ■ Drums (≥ 150 L) are designed for one-time use & require reconditioning prior to use. Designed, constructed and maintained in good condition to securely contain product. <p>Construction Standard</p> <ul style="list-style-type: none"> ■ TP 14850 (2018) are Small Containers for TDG ≤450L. ■ CSA B376 (2014) are Portable Containers for Gasoline and Other Petroleum ≤ 25 L. ■ ULC/ORD – C30 are Safety Containers >5L and ≤ 25L. <ul style="list-style-type: none"> ■ Containers less than 30 liters are exempt from TDG requirements but are still governed under WHMIS. <p>Inspections</p> <ul style="list-style-type: none"> ☑ Licensees/ Contractors must self inspect containers on a regular basis. (plastic containers usually every 5 years). Immediately replace containers that are leaking. 	<ul style="list-style-type: none"> ☑ Do not store small containers in Riparian Management areas or Marine Environments wherever practicable ☑ Do not smoke where fuel is stored or dispensed <p>Labeling</p> <ul style="list-style-type: none"> ■ Any container over 30 liters must have appropriate safety marks: <ul style="list-style-type: none"> ● Label or Placard as required, ● UN number and ● Shipping Name ■ TDG safety marks on the outside of an enclosed unit must be visible if containers are stored within an enclosed unit. ■ WHMIS labeling or appropriate Product Identification is required when storing hazardous products <p>Securing</p> <ul style="list-style-type: none"> ■ As per manufacture's recommendations, containers must be secured and kept level to prevent shifting, swaying, damage, escape from the vehicle and accidental release of product. ■ Tie down straps must have safe combined working load ratings greater than the secured load. 	<ul style="list-style-type: none"> ■ Maintain current MSDS in a location available to worker ☑ Do not dispense fuel in Riparian Management areas or Marine Environments wherever practicable. ☑ Dispense all flammable and combustible substances only from drums in an upright position ☑ Do not fill containers beyond their safe filling level (approximate safe level – 90%) ☑ Store the hose above the pump (and drum) to avoid siphoning. ☑ Only transfer fuel with a pump designed for the products being handled. ☑ Check routinely for leaks drips and spills. 	<ul style="list-style-type: none"> ■ Drums must be properly arranged by: <ul style="list-style-type: none"> ● 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 diesel and/ or gasoline are transported and the combined capacity exceeds 2000L, the following conditions apply: <ul style="list-style-type: none"> ● 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 ■ Empty drum transport are exempt from TDG Regs provided: <ul style="list-style-type: none"> ● Drum residue <10% ● If more than 10 drums then DANGER Placards are required on all four sides and include a shipping document outlining: the primary class, 'residue drums' and number of drums. 	<ul style="list-style-type: none"> ■ Take reasonable measures to prevent leaks & spills ■ Respond to all fuel spills ☑ Where dispensing and storing fuel in higher risk areas consider utilizing additional Spill Control and Prevention Measures (see Table #6). <p>Fire Control and Response</p> <ul style="list-style-type: none"> ☑ Maintain and self-inspect one suitable B:C-rated fire extinguisher ensuring it's: <ul style="list-style-type: none"> ● 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 ☑ Maintain a spill kit of suitable size (See Table #7)



**BC Timber Sales
Environmental Management System
ENVIRONMENTAL FIELD PROCEDURE
EFP 06 FUEL HANDLING**

TABLE #2 SMALL MOBILE (TRUCK BOX) TANKS (Volumes: ≤450L)		Legend			
		<input type="checkbox"/> Legal Requirement <input checked="" type="checkbox"/> BCTS Requirement			
TYPE	CONDITION, DESIGN, & MAINTENANCE	STORING & SECURING	DISPENSING	TRANSPORT (see column 2 for securing details)	PREVENTION & RESPONSE
SMALL MOBILE (TRUCK BOX) TANKS (Volumes: <450L)	<ul style="list-style-type: none"> ■ Must be designed, constructed, filled, closed, secured and maintained so under normal conditions of handling and transport there will be no accidental release of dangerous goods that would endanger public or worker safety. <input checked="" type="checkbox"/> Containers must be in good condition – not damaged, rusting, or leaking. <p>Construction Standard</p> <ul style="list-style-type: none"> ■ Diesel: a spec or non-spec tank may be used. Tanks used for diesel are exempt from being built to an engineering standard but must not pose a danger to public safety. ■ Gasoline: An IBC Portable Tank CAN/CGSB 43.146 spec tank is required and must bear a visible and legible Spec Plate. ■ 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. <p>Inspections</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Licensees/ Contractors must self inspect tanks on a regular basis. Immediately replace containers that are leaking. 	<ul style="list-style-type: none"> ■ 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 <input checked="" type="checkbox"/> If a mobile tank (>230L) is removed from the vehicle and placed on the ground, then secondary containment is required. <p>Securing</p> <ul style="list-style-type: none"> ■ As per manufacture's recommendations, ensure mobile fuel tanks are secured on a solid foundation and remains level to prevent shifting, swaying, damage, escape from the vehicle and accidental release of product. ■ Protect the fuel tank from wear or damage (i.e. rubber belting or mat). <ul style="list-style-type: none"> ■ Tie down straps must have safe <u>combined</u> working load ratings <i>greater</i> than the secured load 	<ul style="list-style-type: none"> ■ Use dispensing pumps designed for the products being handled <input checked="" type="checkbox"/> Use an appropriate hose and nozzle (in accordance with ULC standards) for dispensing fuel <input checked="" type="checkbox"/> Make sure there is suitable bonding between tank and vehicle to prevent static charges when dispensing gasoline. ■ Maintain current MSDS in a location available to workers ■ Hoses and nozzles must be maintained and not leak. ■ Do not dispense fuel in riparian management areas or marine environments wherever practicable. ■ Nozzles must be store in drip containment after use or in an upright position so that it's above the tank. <input checked="" type="checkbox"/> Operators must stay with the nozzle <u>at all times</u> while dispensing fuel <input checked="" type="checkbox"/> Close valves when finished dispensing <input checked="" type="checkbox"/> Store hose in a safe manner to prevent damage and leaks (i.e. coiled on top of tank) <input checked="" type="checkbox"/> Do not fill tanks beyond their safe filling level (<i>approximate safe level – 90%</i>) <input checked="" type="checkbox"/> Keep fuel and equipment on level ground 	<ul style="list-style-type: none"> ■ Mobile containers do not require secondary containment. ■ If multiple tanks of diesel and/or gasoline are complete and carried on the vehicle and the <u>combined capacity</u> exceeds 2000 liters, the following conditions apply: <ul style="list-style-type: none"> • 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. <p>Safety Labeling & Spec Plates</p> <ul style="list-style-type: none"> ■ WHMIS labeling or appropriate <u>Product Identification</u> is required when storing hazardous products ■ Maintain visible safety marks: <ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> • Container Type & Standard • Manufacturer and Date • Re-certification Date and TC Registered Facility 	<ul style="list-style-type: none"> ■ Take reasonable measures to prevent leaks & spills ■ Respond to all fuel spills <input checked="" type="checkbox"/> Where dispensing and storing fuel in higher risk areas consider utilizing additional Spill Control and Prevention Measures (see Table #6). <input checked="" type="checkbox"/> Where tanks are stored on the ground, collision protection is required. (see Table #6) <p>Fire Control and Response</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Maintain and self-inspect one suitable B:C-rated fire extinguisher ensuring it's: <ul style="list-style-type: none"> • 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 <input checked="" type="checkbox"/> Maintain a spill kit of suitable size (See Table #7)



BC Timber Sales
Environmental Management System
ENVIRONMENTAL FIELD PROCEDURE
EFP 06 FUEL HANDLING

TABLE #3 LARGE MOBILE TANKS (Volumes: >450L – ≤3000L)					Legend
					<input type="checkbox"/> Legal Requirement <input checked="" type="checkbox"/> BCTS Requirement
TYPE	CONDITION, DESIGN, & MAINTENANCE	STORING AND SECURING	DISPENSING	TRANSPORT (see column 2 for securing details)	PREVENTION & RESPONSE
LARGE MOBILE TANKS (Volumes: >450L– 3000L)	<ul style="list-style-type: none"> ■ Must be designed, constructed, filled, closed, secured and maintained so under normal conditions of handling and transport there will be no accidental release of dangerous goods that would endanger public or worker safety. ☑ Containers must be in good condition – not damaged, rusting, or leaking Construction Standard ■ All Tanks: used to transport fuel (regardless of volume) must be designed, and constructed to a mobile tank standard and display a spec plate. ■ Spec Tanks: used for diesel and gasoline may have one of the following spec plates: <ul style="list-style-type: none"> ● UN 31A/B IBC Portable Tank and ● TC57 Portable Tanks as per CAN/CGSB 43.146 (2016) ● UN Portable Tanks as per CSA B625-14 (2018) >450L ● ULC/ORD 142.13 ■ Non-Spec Tanks may no longer be used. Any tank without a spec plate is non-spec. Inspections ■ All Spec tanks (listed above) 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. ☑ Licensees/ Contractors must self inspect tanks on a regular basis. Immediately replace containers that are leaking. 	<ul style="list-style-type: none"> ■ Use a pressure relief cap that meets manufacturers design specifications ■ Do not leave vehicles carrying auxiliary fuel in riparian management areas or marine environments wherever practicable. ☑ Do not smoke where fuel is stored or dispensed ☑ If a mobile tank (>230L) is removed from the vehicle and placed on the ground, then secondary containment is required. Securing ■ As per manufacture's recommendations, ensure mobile fuel tanks are secured on a solid foundation and remains level to prevent shifting, swaying, damage, escape from the vehicle and accidental release of product. ■ Protect the fuel tank from wear or damage (i.e. rubber belting or mat). ■ Tie down straps must have safe combined working load ratings greater than the secured load to ensure the tank is integrally mounted 	<ul style="list-style-type: none"> ☑ 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 between tank and vehicle to prevent static charges when dispensing gasoline. ■ Maintain current MSDS in a location available to workers ■ Hoses and nozzles must be maintained and not leak. ■ Do not dispense fuel in riparian management areas or marine environments wherever practicable. ■ Nozzles must be secured in drip containment after use or in an upright position so that it's above the tank. ☑ Operators must stay with the nozzle at all times while dispensing fuel ☑ Keep fuel and equipment on level ground ☑ 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%) 	<ul style="list-style-type: none"> ■ Mobile containers do not require secondary containment ■ If multiple tanks of diesel and/or gasoline are carried on the vehicle and the combined capacity exceeds >2000 liters, the following conditions apply: <ul style="list-style-type: none"> ● A shipping document must be completed and carried for the goods hauled ● The operator must have a TDG training and possess a certificate ● The load must be placarded on all visible sides. ■ If large mobile tanks are transported on a trailer, the trailer must meet Motor Vehicle Requirements, (GVW, brakes, lights and axles etc.). ■ An Equivalent Level of Safety Permit must be obtained from Transport Canada prior to moving non-spec IBC's and Portable Tanks greater than ≥450L that contain dangerous goods in any quantity-including "residual" tanks. The Equivalency Permit will outline applicable use of tank, training and inspection requirements. Safety Labeling & Spec Plates ■ Maintain visible safety marks: <ul style="list-style-type: none"> ● Label or placard, (placard if exceeding 500 kg) ● UN number and Shipping name ■ TDG Placards must be visible ■ Spec plates, decals or associated documentation--(ensuring paperwork is linked to the specific tank) must identify the following: <ul style="list-style-type: none"> ● Container Type & Standard ● Manufacturer and Date ● Re-certification Date and TC Registered Facility Labeling ■ WHMIS labeling or appropriate Product Identification is required when storing hazardous products. 	<ul style="list-style-type: none"> ■ Take reasonable measures to prevent leaks & spills ■ Respond to all fuel spills ☑ Where dispensing and storing 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 it's: <ul style="list-style-type: none"> ● 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 ☑ Maintain a spill kit of suitable size (See Table #7)



BC Timber Sales
Environmental Management System
ENVIRONMENTAL FIELD PROCEDURE
EFP 06 FUEL HANDLING

TABLE #4 HIGHWAY & TC PORTABLE TANKS (Fuel Trucks & Pup-Trailers with Volumes > 3000L)		Legend			
		<input type="checkbox"/> Legal Requirement <input checked="" type="checkbox"/> BCTS Requirement			
TYPE	CONDITION, DESIGN & MAINTENANCE	STORING AND SECURING	DISPENSING	TRANSPORT (see column 2 for securing details)	PREVENTION & RESPONSE
HIGHWAY & TC PORTABLE TANKS (Volume > 3000L)	<ul style="list-style-type: none"> ■ Must be designed, constructed, filled, closed, secured and maintained so under normal conditions of handling and transport there will be no accidental release of dangerous goods that would endanger public or worker safety. <p>Construction Standard</p> <ul style="list-style-type: none"> ■ 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 spec plate to that standard. ■ Spec Tanks: used for diesel and gasoline may have one of the following spec plates: <ul style="list-style-type: none"> ● UN 31A/B IBC Portable Tank and ● TC57 Portable Tanks as per CAN/CGSB 43.146 (2016) ● UN Portable Tanks as per CSA B625-14 (2018) ● TC44 Portable Tanks as per CSA B626-09 (R2015) >3000L only ● ULC/ORD 142.13 ■ Non-Spec Tanks may no longer be used. Any tank without a spec plate is non-spec. <p>Inspections</p> <ul style="list-style-type: none"> ■ 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. <input checked="" type="checkbox"/> Licensees/ Contractors must self inspect tanks on a regular basis. Immediately replace containers that are leaking. 	<ul style="list-style-type: none"> ■ 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. <input checked="" type="checkbox"/> Do not smoke where fuel is stored or dispensed <p>Securing</p> <ul style="list-style-type: none"> ■ Fuel truck tanks must be integrally mounted to the unit. ■ Ensure tank is secure, stable and remains level to prevent accidental release of product. <p>Labeling</p> <ul style="list-style-type: none"> ■ Product identification is an acceptable substitute for supplier or workplace labels and may be affixed to the sides of the tank compartments and piping. ■ All Portable Tanks must have appropriate TDG safety marks including: <ul style="list-style-type: none"> ● Label or placard; ● UN Number; ● Shipping Name ■ Spec Plates must identify the following: <ul style="list-style-type: none"> ● Container Type & Standard; ● Manufacturer & Date; ● Recertification Date & TC Registered Facility 	<ul style="list-style-type: none"> ■ Use an appropriate hose and nozzle (in accordance with ULC standards) for dispensing fuel ■ Use dispensing pumps designed for the products being handled <input checked="" type="checkbox"/> Check routinely for leaks drips and spills. ■ Make sure there is suitable bonding between tank and vehicle to prevent static charges when dispensing gasoline. ■ Maintain current MSDS 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. ■ Store hose in a safe manner to prevent damage and leaks (i.e. coiled on top of tank). <input checked="" type="checkbox"/> Dispensing gasoline fuel directly from a fuel truck into the equipment is NOT permitted <input checked="" type="checkbox"/> Close valves when finished dispensing <input checked="" type="checkbox"/> Operators must stay with the nozzle <u>at all times</u> while dispensing fuel <input checked="" type="checkbox"/> Do not fill containers beyond their safe filling level (<i>approximate safe level – 90%</i>) <input checked="" type="checkbox"/> Keep fuel and equipment on level ground 	<ul style="list-style-type: none"> ■ 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: <ul style="list-style-type: none"> -Complete a shipping document for the goods hauled or residue last contained -Maintain a valid TDG training certificate -Visible spec plate ■ Placard the load on all four sides ■ Non-Spec tanks may no longer be used. ■ An Equivalent Level of Safety Permit must be obtained from Transport Canada prior to moving non-spec IBC's and Portable Tanks greater than ≥450L that contain dangerous goods in any quantity-including "residual" tanks. The Equivalency Permit will outline applicable use of tank, training and inspection requirements. 	<ul style="list-style-type: none"> ■ Take reasonable measures to prevent leaks & spills ■ Respond to all fuel spills <input checked="" type="checkbox"/> Where dispensing and storing fuel in higher risk areas consider utilizing additional Spill Control and Prevention Measures (see Table #6). <p>Fire Control and Response</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Maintain and self-inspect one suitable B:C-rated fire extinguisher ensuring it's: <ul style="list-style-type: none"> ● 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 <input checked="" type="checkbox"/> Maintain a spill kit of suitable size (See Table #7)



**BC Timber Sales
Environmental Management System
ENVIRONMENTAL FIELD PROCEDURE
EFP 06 FUEL HANDLING**

TABLE #5 LARGE STATIONARY SKID TANKS (Generally Volumes > than >3000L)

Legend	
■	Legal Requirement
☑	BCTS Requirement

TYPE	CONDITION, DESIGN & MAINTENANCE	STORING AND SECURING	DISPENSING	TRANSPORT (see column 2 for securing details)	PREVENTION & RESPONSE
LARGE STATIONARY SKID TANKS (Volume >3000L)	<ul style="list-style-type: none"> ■ Stationary Tanks are not designed to transport fuel and must be emptied prior to moving. TC has designated the CAN/ULC-601 as a Utility tank and may be relocated (empty) with an <i>Equivalent Level of Safety Permit</i>. ☑ All Tanks: must be designed, constructed, and tested to a design standard specification and must bear a visible and legible Spec Plate to that standard ■ Spec Steel Tanks: used to store flammable and combustible liquids (diesel or gas) and will generally have one of the following markings: <ul style="list-style-type: none"> ● ULC-S601 Shop Fabricated AST for ● ULC-S602 AST Steel Tanks ● ULC-S630 AST Vertical Tanks ● ULC-S643 AST Vertical Tank; ● ULC-S653/S655 AST Steel Tanks Assembly ● All tanks must be constructed and maintained to conform to a ULC specification for stationary above ground tanks. ■ Non-Spec Tanks: All non-spec tanks must be taken out of operation. Any tank without a spec plate is non-spec. <p>Inspections</p> <ul style="list-style-type: none"> ■ Licensees/ Contractors must self inspect tanks on a regular basis. Immediately replace containers that are leaking. 	<ul style="list-style-type: none"> ☑ All stationary tanks must have secondary containment. Options include: <ul style="list-style-type: none"> ● Tank-in-tank (vacuum monitored, visible access port or visible access hatch). ● Tank-in-box (visible access hatch) ● Tank in berm with geotextile liner (orequivalent) ☑ Skid Tank shall be equipped with overfill protection. ☑ Use a pressure relief cap that meets manufacturers design specifications ☑ Store nozzle & hose in a safe manner to prevent damage and leaks (i.e. on a retractor, hose reel or coiled) ■ Do not place stationary skid tanks in riparian management areas or marine environments, unless no other area is practicable. ☑ Ensure All stationary tanks are properly grounded; ☑ Do not smoke where fuel is stored or dispensed ☑ Ensure physical protection against collision damage. <p>Storage</p> <ul style="list-style-type: none"> ☑ Large stationary skid tanks must be: <ul style="list-style-type: none"> ● Above ground, doubled wall with a positive containment monitoring leak protection feature, (vacuum gauge, visual port or dipstick); <p>Securing</p> <ul style="list-style-type: none"> ■ As per manufacture's recommendations, tanks must be appropriately secured to the skid and kept level to prevent shifting, swaying, damage escape and accidental release of product. ■ Tanks must be mounted to a fire-resistant cradle and skid. 	<ul style="list-style-type: none"> ■ 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 to prevent static charges when dispensing gasoline ■ Maintain current MSDS in a location available to workers ■ Hoses and nozzles must be maintained and not leak ■ Do not dispense fuel in riparian management areas or marine environments wherever practicable. ■ Maintain a record of inventory ☑ Operators must stay with the nozzle <u>at all times</u> while dispensing fuel. ☑ Written and posted SOPs ☑ Store nozzle & hose in a safe manner to prevent damage and leaks (i.e. on a retractor, hose reel, coiled or above the tank to prevent siphoning) ☑ Close valves when finished dispensing ☑ Do not fill tanks beyond their safe filling level (<i>approximate safe level – 90%</i>) ☑ Keep fuel and equipment on level ground 	<ul style="list-style-type: none"> ■ Stationary Tanks (>450L) must never be used to transfer fuel. TDG Transport ■ Prior to moving a stationary fuel (diesel or gas) tank with a capacity >450L and ≤2000 ensure: <ul style="list-style-type: none"> ● Tank is pumped empty (5% or less); ● Obtain an <i>Equivalent Level of Safety Permit</i> from TC; ● The AST is placarded on all four sides with TDG Classification and Shipping Name; ■ When relocating an empty stationary AST with a total capacity >2000L, the following TDG Regulations must be implemented: <ul style="list-style-type: none"> ● Tank must be emptied to <5% and/or contain <500L; ● Obtain an <i>Equivalent Level of Safety Permit</i> from TC; ● A shipping document must be completed for the <i>Residual Last Contained</i>; ● The hauler/operator must possess a valid TDG training certificate; ● The skid tank must be placarded on all four sides displaying TDG Classification, Shipping Name and UN number. ■ WHMIS labeling or appropriate <u>Product Identification</u> is required when storing hazardous products 	<ul style="list-style-type: none"> ■ Take reasonable measures to prevent leaks & spills ■ Respond to all fuel spills ☑ Where dispensing and storing 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) <p>Fire Control and Response</p> <ul style="list-style-type: none"> ☑ Maintain and self-inspect one suitable B:C-rated fire extinguisher ensuring it's: <ul style="list-style-type: none"> ● 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 ☑ Maintain a spill kit of suitable size (See Table #7)



BC Timber Sales
Environmental Management System
ENVIRONMENTAL FIELD PROCEDURE
EFP 06 FUEL HANDLING

TABLE #6 Definition of Terms

Additional Spill Control Prevention	<ul style="list-style-type: none"> • Re-assess the environmental risk and implement additional control measures • Review the BCTS Fuel Handling Environmental Field Procedure 06 to ensure procedures address the risk factors • Review Spill Response awareness and preparedness, conduct a spill drill and increase monitoring of dispensing area locations • Enhance minimum Spill Kit requirements as outlined in Table #7 • Move the fuel storage to a lower risk location • Add secondary containment or double-walled containers • Breakaway valves on hoses • Collision Protection e.g. guard logs • Tanks located more than 6 meters from a building • Tarps for containment • Materials to block culverts when needed • Sandbags and PVC pipe for underflow containment • Sandbags for diversions and upstream eddy containment 		
B:C Fire Extinguisher	<p>The number represents the size of fire the extinguisher will put out under normal use (non-expert)</p> <ul style="list-style-type: none"> • An 80 rated fire extinguisher will cover 15.25 square meters • 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 • The B:C represents the type of fires: “B” fire is for flammable liquids, while a “C” fire is for electrical 		
Bioremediation Product	<p>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.</p>		
Breakaway valve	<p>An in-line device containing a flutter valve that, upon accidental separation of the hose, will automatically close and prevent fuel from being discharged</p>		
Collision Protection	<p>A barrier sufficient to alert the operator and prevent accidental damage to the container and release of the product.</p>		
Enclosed space	<p>Any structure enclosed by three sides</p>		
Equivalent Level of Safety (Permit) issued by Transport Canada	<p>Permits for Equivalent Level of Safety allows the handling, offering for transport or transporting of dangerous goods in a manner that does not necessarily comply with the Transportation of Dangerous Goods (TDG) Regulations. Permits are only issued if the risk to health, safety and the environment are mitigated reasonably. It is not necessary to obtain a permit to handle, offer for transport or transport dangerous goods if the TDG Act and Regulations are fully complied with.</p> <p>Note: Some organizations such as the Forest Products Association of Canada, have an Equivalent Level of Safety Permit authorized for their members. https://wwwapps.tc.gc.ca/Saf-Sec-Sur/3/approvals-approbations/SearchCertificates.aspx</p> <p>To Apply for an Equivalency Certificate (Permit of Equivalent Level of Safety). Please go to TC link below: https://tc.canada.ca/en/dangerous-goods/how-apply-equivalency-certificate-permit-equivalent-level-safety</p>		
Fuel Storage Facility	<p>Any location where fuel in excess of 500 litres is stored on a BCTS tenure</p>		
Equivalent Spill Response Equipment	<p>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:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;"> <ul style="list-style-type: none"> • 2L of Sphag Sorb (peat moss) = 5 Absorbent pads • One large heavy duty plastic bag = One five (5) gallon pail </td> <td style="width: 50%; border: none;"> <ul style="list-style-type: none"> • Plug-N-Dike = Bentonite clay or “drillers clay” • Containment boom = log boom with tarp “skirt” </td> </tr> </table>	<ul style="list-style-type: none"> • 2L of Sphag Sorb (peat moss) = 5 Absorbent pads • One large heavy duty plastic bag = One five (5) gallon pail 	<ul style="list-style-type: none"> • Plug-N-Dike = Bentonite clay or “drillers clay” • Containment boom = log boom with tarp “skirt”
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BC Timber Sales
Environmental Management System
ENVIRONMENTAL FIELD PROCEDURE
EFP 06 FUEL HANDLING

TABLE #6 Definition of Terms

Large Means of Containment	A means of containment with a capacity greater than 450 litres. For example, a highway cargo tank, large slip tank etc.
Material Safety Data Sheets (MSDS)	MSDS--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).
Plug-N-Dike	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.
Small Means of Containment	A means of containment with a capacity less than or equal to <230 litres. For example, a drum, jerry cans, or intermediate bulk container.
Spec Tank	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 "spec tank" would be a TC406 highway tank meeting all of the TC406 specification requirements described in CSA Standard B620-03 <i>Highway Tanks and Portable Tanks for the Transportation of Dangerous Goods</i> .
TC	Transport Canada: Federal Agency that oversees the transportation of dangerous goods on land, sea and air
TDG	Transportation of Dangerous Goods Regulation
ULC	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)
UN Number	United Nations Number: Used to identify a specific dangerous good. Diesel: UN 1202; Gasoline UN 1203
Workplace Hazardous Materials Information System (WHMIS) Labelling & product identification	Hazardous products in the workplace must be identified through one of the following means: <ul style="list-style-type: none"> • Supplier label • Workplace Label (attached when no supplier label was provided or the supplier label is lost or removed) <ul style="list-style-type: none"> ○ 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. For 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!

<http://wwwapps.tc.gc.ca/saf-sec-sur/3/fdr-rici/highway/tanks.aspx>



**BC Timber Sales
 Environmental Management System
 ENVIRONMENTAL FIELD PROCEDURE
 EFP 06 FUEL HANDLING**

**TABLE #7
 SPILL KIT
 (Minimum Requirements)**

<p>In Equipment / Machinery (excavators, skidders) Spill kits must be present on equipment, (appropriate for type and potential size of spill).</p> <ul style="list-style-type: none"> • Spill kits must include: <ul style="list-style-type: none"> ○ One large heavy duty plastic bag or other suitable container ○ Absorbent pads (or equivalent absorbent material), appropriate for the type of spill, • Personal protective safety gear as required for the type of spill 	<p>Vehicles carrying auxiliary fuel (e.g. pick-up truck box tanks or multiple small containers) Spill kits must be present in vehicles transporting and dispensing fuels</p> <ul style="list-style-type: none"> • Spill kits must include a minimum of: <ul style="list-style-type: none"> ○ 3 - Heavy duty plastic bags or suitable container(s), ○ 10 - absorbent pads (or equivalent absorbent material) appropriate for the type of spill, ○ 3 – 3”x 48” absorbent booms/ socks, ○ bioremediation product, ○ One shovel ○ A container of emergency tank sealant (i.e. Plug-N-Dike, Seal-it or equivalent) • Personal protective safety gear as required for the type of spill 	<p>Stationary or Mobile Fuel Storage & dispensing (tanks or multiple-drum caches) Spill kits must be present at points where fuel is dispensed.</p> <ul style="list-style-type: none"> • Spill kits must include a minimum of: <ul style="list-style-type: none"> ○ Five large heavy duty plastic bags, or one open topped containment drum (or equivalent), ○ 20 absorbent pads (or equivalent absorbent material) appropriate for the type of spill, ○ 6 – 3”x 48” absorbent booms/ socks, ○ Two 10’ linkable marine booms (if near marine operations), ○ bioremediation product, ○ One container of emergency tank sealant (i.e. Plug-N-Dike or equivalent), ○ One shovel • Personal protective safety gear as required for the type of spill
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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.