



UCHUCKLESAHT TRIBE

ENVIRONMENTAL MANAGEMENT PLAN

STANDARD OPERATING PROCEDURES

March 31, 2011

Consolidated Operations Binder

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Table of Contents

SOP 1.01 WATER RESOURCES PROTECTION.....	4
SOP 1.02 HEAVY RAINFALL AND OR MAJOR WIND STORM EVENTS.....	7
SOP 2.01 EMERGENCY SPILL RESPONSE GENERAL PROCEDURES.....	8
SOP 2.02 EMERGENCY SPILL PROCEDURE - Fuel and Oil Dispensing Sites.....	9
SOP 2.03 WILD FIRE EMERGENCY RESPONSE.....	10
SOP 2.04 NATURAL CATASTROPHE EMERGENCY RESPONSE.....	11
SOP 3.01 GENERAL SOLID WASTE (Garbage).....	12
SOP 3.02 GENERAL LIQUID WASTE – Sewage disposal (Septic Tank System).....	14
SOP 4.01 NATURAL RESOURCES HABITAT PROTECTION.....	16
SOP 5.01 HOUSEHOLD HAZARDOUS WASTE MATERIALS.....	18
SOP 5.02 ALTERNATIVES TO PESTICIDES	21
SOP 5.03 PESTICIDE USE	24
SOP 6.01 SMALL CONTAINERS 25L to 230L (CANISTERS, JERRY CANS, PAILS, & DRUMS)	28
SOP 6.02 SMALL TDG TANKS ≤ 454L TRUCK-BOX FUEL TANKS/TIDY TANKS.....	30
SOP 6.03 LARGE TDG TANKS > 454L TANK VEHICLES.....	32
SOP 6.04 FIXED LOCATION ABOVEGROUND STORAGE TANKS (AST) > 230L.....	36
SOP 6.05 EMERGENCY SPILL RESPONSE GENERAL PROCEDURES.....	40
SOP 6.05* EMERGENCY SPILL RESPONSE - FUEL AND OIL SPILLS – *POST on SITE.....	41
• Typical Spill Kit Content & Spill Reporting Levels.....	42
SOP 7.01 Cultural Resources Assessment.....	44
SOP 7.02 DISCOVERING and REPORTING UNREGISTERED ARCHAEOLOGICAL SITES and or UNPERMITTED DISTURBANCE of an ARCHAEOLOGICAL SITE.....	46
SOP 8.01 ENVIRONMENTAL IMPACT ASSESSMENT.....	48

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UT - Environmental Standard Operating Procedure

SOP 1.01 WATER RESOURCES PROTECTION

The UT Environmental Management Plan was developed to ensure that the UT community uses best management practices to protect their lands. **The component plans and SOPs developed for the following environmental issues are key to protecting both surface and ground water resources:**

- 1. Fuel handling and storage**
- 2. Solid and liquid waste management**
- 3. Handling, storage and disposal of hazardous materials**
- 4. Habitat protection**

Additionally, the SOP for EIA, **Environmental Impact Assessment 8.01**, provides an opportunity to assess development activities that could potentially impact water resources on UT lands. A proactive approach to protecting ground and surface water begins by upholding the best management practices outlined in the SOPs listed above. Each of these SOPs recognizes the importance of water resources including riparian and wetland habitat.

Understanding your water supply, where it comes from and how it gets to your tap is vital to ensuring clean, safe and reliable drinking water. There are numerous levels at which your water supply can be protected. The government of Canada (Health Canada) developed the Multi-Barrier Approach in response to the outbreak of waterborne disease in Walkerton, Ontario in 2000. The multi-barrier approach means taking many actions across a number of points in the water supply system. The multi-barrier approach examines all the potential threats to the water supply and then barriers are installed to either eliminate these threats or minimize their impact. It also includes determining the best available water source, such as a lake or aquifer, and protecting it from contamination through the use of effective water treatment, and prevention of water quality degradation.

This approach recognizes that individual barriers may not be able to completely remove or prevent contamination. However, multiple barriers work together to provide greater long-term assurance that the water supply will be safe to drink.

The main components of the multi-barrier approach are:

- 1. Source protection,**
- 2. Water treatment,**
- 3. Water system operation and maintenance,**
- 4. Water quality monitoring and reporting,**
- 5. Regulatory inspection and mitigation planning, and**
- 6. Operator education and training.**
- 7. Individual or Household Actions**

In keeping with the Multi-Barrier Approach, UT community members can contribute to the overall protection of their water supply. The following actions can be taken by individual households to help protect themselves against contaminated water.

- Only qualified individuals are to install wells or other water supply systems.

EMP 1.0 – Plan for Surface and Ground Water Protection	Created by: EMP Technical Planning Team 31-03-2011	Date Modified: N/A
SOP: 1.01 – Water Resources Protection	Approved: By the UT Executive March 31 2011	Page 1 of 3

- Maintain safe and functional sewage systems to minimize or eliminate fecal leachates into the soil.
- Maintain clean supply lines and facets.
- Protect your well.(Appendix 8)
- Cap your well with a “vermin-proof” cap or sanitary seal and ensure it is securely in place and water-tight
- Cap should be at least 12 inches above the ground
- Do not put any foreign material down your well;
- Do not disturb the wellhead or surface seal;
- Ensure joints, cracks and connections in the well casing are sealed
- Ensure surface draining near the well is directed away from the well
- Surface water should not pond near the well
- Do not over-pump your water supply, this will cause the intrusion of salt or contaminated water into the well;
- protect the “stick up” from physical damage
- Check the well pump and distribution systems regularly.
- Investigate changes in water quality and quantity immediately.
- Observe any “Boil Water” advisories.
- Prevent contamination of the well
- Reduce, reuse and recycle wastes,
- Do not allow liquids or wastes from garbage to drain towards the well casing,
- Avoid the use of harsh chemicals whenever possible,
- Choose environmentally friendly pest or weed control actions,
- Do not treat the area around the well with pesticides or fertilizers,
- Dispose of harmful substances appropriately,
- Avoid flushing oils, detergents, paints, solvents or other chemicals down the toilet,
- Handle and store fuel properly.
- Chlorinate and test your well after any repairs.
- Use filtration systems if necessary.

NOTE: Your well can be contaminated by:

- Openings in the well seal,
- Improperly installed well casing,
- A well casing that is not deep enough,
- A well casing that is not sealed, or
- A source of contamination not related to well construction.
- Follow Provincial **Groundwater Protection Act** Regulations with respect to Elhltseese Community Drilled water well maintenance – Specifically the well must have:
 - **Surface Seal** - to prevent contaminants from the surface or a shallow subsurface zone from entering the well. Seal must be at least 2.5 cm thick
 - **Secure Well Cap** – to prevent direct and unintended entry into the well of any water or undesirable substances at the surface of the ground, including floodwater, ponded water, and contaminants

EMP 1.0 –Plan for Surface and Ground Water Protection	Created by: EMP Technical Planning Team 31-03-2011	Date Modified: N/A
SOP: 1.01 – Water Resources Protection	Approved: By the UT Executive March 31 2011	Page 2of 3

- **Well Casing Stick-up** – to help floodproof the well. Stick-up must be at least 30 cm from the well surface to the top of the casing
- **Wellhead Graded** – to drain surface water away from the wellhead
- **Well Identification Plate** – well drillers are responsible for attaching a well identification plate to a new water supply well
- **Controlled or Stopped Artesian Flow** – to prevent wasting water, the driller must construct the well in a manner that stops or controls any artesian flow
- **Deactivate wells** – unused wells must be deactivated appropriately to ensure surface seal

Community Actions

Looking after the health of the land is an important aspect of the multi-barrier approach as runoff over healthy land will result in better quality water run-off going into streams and rivers. The following actions can be taken at the community-level or larger level to protect the water resource on UT lands.

- Identify and map all point sources of the water supply and potential “threats” to those sources.
- Fence off any areas that are particularly sensitive to disturbance to restrict public access.
- Provide erosion control where necessary including monitoring and maintaining drainage ditches and structures during storm events.
- Ensure development is conducted in a manner that does not result in deleterious impacts to a water source point.
- Only qualified professionals conduct regular tests of potable water in the community water supply
- Have a qualified professional develop a monitoring plan for streams, rivers and water storage facilities so that threats can be identified and mitigated as early as possible.
- Avoid actions that could degrade riparian areas or wetlands – build these actions into land use plans.

EMP 1.0 –Plan for Surface and Ground Water Protection	Created by: EMP Technical Planning Team 31-03-2011	Date Modified: N/A
SOP: 1.01 – Water Resources Protection	Approved: By the UT Executive March 31 2011	Page 3 of 3

UT - Environmental Standard Operating Procedure

SOP 1.02- Heavy Rainfall and or Major Wind Storm Events (Inspection report form)

This SOP provides guidance for the UT Director of Lands and Resources,(DLR) and Elhlateese Village residents. This SOP is intended to provide basic procedures to avoid and/or minimize water erosion damage to roads and drainage structures, during major rainstorm events. **These procedures require periodic monitoring of drainage ditches and culvert inlets to ensure that they are not obstructed and in danger of plugging and or being damaged or washed out during a major rainstorm event.**

Inspection Timing:

- Once every 3 months the DLR or designate shall make a visual inspection of the Village access roads network and other road systems on TS Lands
- During a major rainstorm event walk/drive and inspect, clean out ditch/culvert obstructions and report on drainage structures as per the check list below;

At the Elhlateese Village and other designated UT road systems, the DLR or designated person shall inspected, take action if necessary and report on the following:

- **Drainage ditches** are there any obstructions (Walk ditch and check for debris accumulations, tree limbs, logs, sloughed banks)? If there is any obstructions? make arrangements to remove/clean the obstruction. Remarks _____
- **Culverts** - Inlets to the culvert is the rock armor in place? Is the inlet obstructed with limbs logs or debris? Is the sediment trap at the inlet filling in? And is sediment building up inside the culvert?
 - Does the Sediment trap and rock armor need repair work?
 - Does the sediment trap need clean out? Does the culvert need cleanout or replacing?
 - Complete report on cleanup action taken – DLR to file report.

Remarks _____

- **Potential Bank Sloughing Hazard** - Check the upslope side of the road drainage ditch banks and identify banks that need stabilizing or tree root wades that are in danger of sliding into the ditch causing an obstruction diverting water onto the road.
 - Record and report sloughing hazard.

Remarks _____

- **Your visual inspection** needs to confirm that all natural drainage channels (gullies and ravines) are working – is there any slide activity in the ravines or gullies? If so, Record and report potential natural hazards to the DLR for follow-up action.

Remarks _____

Report Completed By _____ Date _____

DLR Review of required follow-up action – discuss action with the UT Executive. Comments and action taken: _____

Follow-up action, review & approval by the DLR? Date _____

Action Completed _____ UT - DLR _____ Date _____
Date Signature

EMP 1.0 –Plan for Surface and Ground Water Protection	Created by: EMP Technical Planning Team 31-03-2011	Date Modified: N/A
SOP: 1.02 – Water Resources Protection (Inspections)	Approved: By the UT Executive March 31 2011	Page 3 of 3

UT - ENVIRONMENTAL STANDARD OPERATING PROCEDURES

SOP 2.01 EMERGENCY SPILL RESPONSE GENERAL PROCEDURES

- All vehicles transporting fuel or hazardous materials must have and maintain a spill response kit capable of containing and absorbing fuel spills,
- Spill response procedures and a current spill response plan
- Post written Emergency Fuel Spill response procedures must be provided with the vehicle, (Page 2) and or an emergency response manual with the fuel facility.
- A spill response kit capable of containing and absorbing fuel spills must be available onsite, maintained and re-supplied when used.
- Ensure that spills are recovered and that contaminated soil is removed to an approved location or treated by a professional with the appropriate expertise.
- Fuel spills greater than 100 Litres must be reported to the Provincial Emergency Program (PEP) telephone 1-800-663-3456.

KEY SPILL RESPONSE ACTION

Act Fast & Think Safety

1. Warn people in the immediate vicinity and evacuate if necessary.
2. Extinguish all sources of potential ignition and enforce No Smoking.
3. Use common sense. Act quickly but ensure personal safety and use of Protective Clothing.
4. Shut off pumps and other equipment, close valves.

Containment and Recovery on Land

1. Mark the perimeter of the spill and block off all drains, culverts and ditches.
2. Dig recovery ditches around the perimeter to contain the spill.
3. Surround the spill with earth, peat, straw, sand, booms, commercial absorbents booms.
4. Obtain approval from Ministry of Environment to properly dispose of soil.

Containment and Recovery on Water

1. In a ditch or stream use a tarp containment system, or booms.
2. In open water divert the spilled product into a containment system using booms (absorbent and synthetic).
3. Use absorbent pads or pumps to extract the spilled product.

Recovery, Disposal and Site Restoration

1. Confirm disposal options and approval with the Ministry of Environment.
2. Document (notes and photos) the spill on a spill report form.
3. Take samples of contaminated soil.
4. Spills exceeding the following levels must be reported to the B.C. Provincial

Emergency Program (PEP) 1-800-663-3456 (24-hour emergency number).

EMP – Program Environmental Emergency	Created by: EMP Technical Planning Team 31-01-11	Date Modified: N/A
SOP – 2.01 Emergency Spill Response	Approved: By UT Executive	Page 1 of 1

UT - ENVIRONMENTAL STANDARD OPERATING PROCEDURES

SOP 2.02 – EMERGENCY RESPONSE - FUEL AND OIL SPILLS - on SITE

For ALL Petroleum Fuel or Oil Spills, the Procedures are as follows;

- 1) **Assess for protection of Life and Safety** – Protect yourself and others. If there is a risk of fire, evacuate the area.
- 2) **Assess the situation** – do you know what spilled; what its hazards are (refer to MSDS); what you can do with the equipment and protective equipment you have?
- 3) **Communicate with UT office** – advise of situation phone (250)-724-1832. Do not use equipment which may generate sparks (including radios and cell phones) in an area where you can smell fuel vapours – move a safe distance away to make call. UT Office may trigger Level 2 EERP response.
- 4) **If safe, stop the source.** Turn off a valve, plug the leak, and roll the drum/container, if it can be done safely, so the leak opening is at the top, etc. - Attempt to stop the flow.
- 5) **Secure the area** – place cones, erect barricades, rope lines, caution tape or other means to prevent unintentional access into spill area. Be aware of the possibility that the spilled product may produce flammable vapours.
- 6) **Petroleum liquid spills which enter water courses** regardless of amount (i.e. causes rainbow sheen) **or onto the ground if over 100 litres must be reported to the Provincial Emergency Program (PEP) by the person in charge of the spill.**
- 7) **Plan response – control, containment, and then clean-up.**
- 8) **Put on rubber boots or booties, coated disposable coveralls or rain gear, nitrile or neoprene gloves, and a half-face respirator (if fuel spill)** before working on the spill – not after you get splashed.
- 9) **Control the release** – stop the flow by plugging the leak, turning the container, setting up a method of capturing the spill, pumping out remaining product, etc.
- 10) **Contain the spill**
 - a. **boom the product** – if a fuel or oil product is approaching the water, set a hydrocarbon boom in the water, along the shoreline. If the product is on land, boom just beyond the perimeter of the spill.
 - b. **block drainage openings that could receive the product**, including those a bit distant as weather or cleanup activities can result in an unexpected spread of the product.
 - c. **divert flow from entering water or other sensitive areas** with non-reactive materials such as boom, gravel, sand bags, digging a trench, etc.
- 11) **When containment and control have been achieved, clean up spill by removing absorbents, contaminated soil, contaminated water or other contaminated materials. Clean facilities or equipment contaminated by spill and dispose of contaminated materials thru a licensed Hazardous Waste Disposal Facility.**
- 12) **Conduct an investigation and identify and report the root cause of the spill, prevention options, and evaluate whether procedures need to be changed.**
- 13) **Review report with Chief and Council and implement approved action to prevent a re-occurrence.**

EMP – Program Environmental Emergency	Created by: EMP Technical Planning Team 31-03-11	Date Modified: N/A
SOP – 2.02 Emergency Spill Response	Approved: By UT Executive 31-03-11	Page 1 of 1

UT - ENVIRONMENTAL STANDARD OPERATING PROCEDURES

SOP 2.03 FIRE EMERGENCY RESPONSE (Model Fire report Form)

1. Ensure Safety
 - Ensure that you and everyone around you is safe
 - Evacuate the site if necessary
2. Report the Wildfire
 - To the Ministry of Forests and Range 1-800-663-555 or *5555 from a cellular phone
 - To the UT Lands and Resources Manager - UT Office to trigger Level 2 EERP response Plan if necessary.
 - When reporting a fire, important information to have on hand includes:
3. The location of the fire: _____
4. Provide details as to a source of water – is there a lake, pond or stream and the estimated distance from the water source to the fire _____
5. The nature of the fire:
 - Flames present
 - Is the fire on the ground or crowning
 - What colour is the smoke _____
 - What direction is the smoke blowing _____
6. Is the fire in
 - Timber,
 - Slash, or
 - Ground
7. What is the weather condition (Wind? Clouds?) _____
8. Wind direction _____
9. Is there large equipment in the vicinity, for example logging equipment
10. If Possible, Stay on Site - The person responsible for reporting the fire should stay on site until an official arrives so long as their safety is not jeopardized. They may be able to provide valuable information to the initial attack crew.

Note: WCB Regulations require that fire fighters working on wild forest fires must have successfully completed the BC - Basic Fire Suppression & Safety (S100) training course.

EMP – Program Environmental Emergency	Created by: EMP Technical Planning Team 31-03-11	Date Modified: N/A
SOP – 2.03 Emergency Wildfire Response	Approved: By UT Executive 31-03-11	Page 1 of 1

UT - ENVIRONMENTAL STANDARD OPERATING PROCEDURES

SOP 2.04 NATURAL CATASTROPHE RESPONSE

A natural catastrophe is an event which usually results from a natural change in the earth's surface or atmosphere, and which has a devastating effect on the environment and local life. Landslides, earthquakes, floods, road and bridge washouts, hurricane windstorms and Tsunamis are considered natural catastrophes.

Emergency Response

The following procedures should be followed in the event of a natural catastrophe on UT Lands contact the UT Director of Lands and Resources who is to trigger the Level 2 EERP response plan if necessary:

:

1. Safety First
 - Warn people in the immediate area and if possible stop others from entering the area – barricade the road
2. Determine if anyone is injured or requires assistance
 - If you are qualified, provide necessary first aid
 - Assist those who require help to safety
3. Notify the UT office immediately (250) 724-1832 to trigger the Level 2 EERP Team.
 - Report the incident to the Director Lands and Resources
 - The Director of Lands and Resources to investigate and prepare a report for review by the UT Executive.

KEY UCHUCKLESAHT TRIBE CONTACTS:

Chief Administrative Officer and Director of Lands and Resources can be reached at:

The UT office general telephone number: (250) 724-1832

Emergency Program (PEP) 1-800-663-3456 (24-hour emergency number).

EMP – Program Environmental Emergency	Created by: EMP Technical Planning Team 24-01-11	Date Modified: N/A
SOP – 2.0.4 Emergency Natural Catastrophe	Approved: By UT Executive 31-03-11	Page 1 of 1

UT - Environmental Standard Operating Procedure

3.01 GENERAL SOLID WASTE (Garbage)

This SOP applies to those UT citizens who reside at Elhlateese village, other residences on UT TS Lands and commercial operators who are required to effectively manage their waste/garbage disposal.

Segregation

It is best to sort household waste on a daily basis into different bags or containers depending upon the category of waste such as wet and dry waste.

Reduction

- Know Your Waste - Understanding what your wastes are and how much waste your household generates will help you to develop the most efficient, waste reduction strategy.
- Keep up-to-date with existing provincial and regional district legislation concerning solid waste management.
- You must ensure that all banned materials are being diverted from your garbage.
- Get your family to participate in the process.

Disposal

Disposal must follow the rules and guidelines established by the UT Executive for collection and disposal of Household or commercial operator waste.

Recycled Dry Waste

Recyclable dry wastes can be disposed of at the Regional District Landfill site at Port Alberni. The ACRD facilities is set up to handle paper, cardboard, plastic milk jugs.

Organic Waste

Household organic matter can be treated in specially designed backyard composting containers, and is an effective way to manage lawn and garden wastes as well as household organic food items (fruits and vegetables) - this option may not be practical due to bear problems. An alternative option could be to set up an on site community composting facility. The UT Executive will need to evaluate this option and consider if the benefits out weigh the costs of transporting such waste out on the current barge system.

Inert Material

Most inert material cannot be disposed of through the current system of disposal bin disposal at the Village. Construction material such as roofing, wood, concrete and fencing require sorting and barge transportation to the Port Alberni McCoy Lake Landfill and applicable fees will need to be paid. It is recommended this type of disposal be done once a year as a UT sponsored spring or fall clean-up project at the village and should include general debris along with hazardous materials and other bulk items (barrels, TVs, old sofas, etc).

Backyard burning

Burning should never involve hazardous materials or plastics, only material such as woody material, leaves, grass, and paper. Options for the disposal of prohibited materials are provided through Solid Waste and Recycle facilities at the RDAC and other designated centers (i.e. Hetherington, Bottle depot, Sally Ann and Sunbird) that are setup for collection in Port Alberni.

Hazardous Wastes

Household hazardous wastes must be separated and disposed of in the manner outlined in the **Hazardous Materials Handling, Storage and Disposal Component Management Plan 5.0 (EMP – CMP# 5.0)**

EMP –Plan for Solid and Liquid Waste Management	Created by: EMP Technical Planning Team 31-03-2011	Date Modified: N/A
SOP: 3.01 – General Solid Waste – Garbage	Approved: By Chief & Council 31-03-2011	Page 1of 1

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UT- Environmental Standard Operating Procedure

3.02 GENERAL LIQUID WASTE – Sewage Systems

This SOP applies to all Tribe members residing on UT Lands.

What goes down the drain?

It is always wise to minimize the amount of water that goes into the onsite sewage system; typical water use is about 227 litres (50 gallons) per day for each person.

Septic Systems are designed to handle domestic wastewater.

As a general rule, nothing should be disposed into any wastewater system that hasn't first been ingested, other than toilet tissue, mild detergents and wash water.

Other things that don't break down easily include:

Facial tissues, large amounts of food scraps, coffee grounds, eggshells, tea bags, sanitary napkins, disposable diapers, kitty litter, candy wrappers, large amounts of hair, toxic chemicals, bath and body oils, bacon fat and other cooking oils, condoms, medicines, pesticides, strong disinfectants and cleaning products. Tossing these items down the drain can damage or substantially increase the need to pump out your septic tank. All the above items should be disposed of in the trash or compost.

Use soaps and detergents that are mild and are "Not" anti-bacterial.

Most of the mild soaps are generally low in phosphates and less likely to harm your system or the environment. **Most automatic dishwashing detergents contain high concentrations of phosphates - prefer to use environmentally friendly products**, or alternatives like baking soda and vinegar.

Avoid pouring grease of cooking oil down the drain (including toilet).

Grease and oil should be disposed of in the trash. (You can pour the oil/grease/fat into a tin can and let it solidify and then throw it into the trash.)

Maintain Faucets and Toilets.

A slow-running toilet discharging ¼ gallon per minute will result in adding 360 gallons per day to your flow. This could cause your septic system to be overloaded, leading to poor treatment and failure of your drain field. To test the toilet, put a few drops of food colouring in the toilet tank. If it shows up in the bowl, it is leaking. It may take as long as an hour for colour to show in bowl. Repair the leak by replacing the float assembly or rubber washer.

Wastewaters not included in the system's design should not be put into the system. This includes wastewater from:

- Roof drains and foundation weeping drains
- Hot tubs and pools that use strong disinfectants such as chlorine
- Swimming pools

EMP –Plan for Solid and Liquid Waste Management	Created by: EMP Technical Planning Team 31-03-2011	Date Modified: N/A
SOP: 3.02 – General Liquid Waste – Sewage System	Approved: By UT Executive 31-3-2011	Page 1 of 2

- An iron filter or water softener backwash
- Water conditioning equipment that generates excessive amounts of water
- R.V. wastewater.

These flows should be disposed of into a waste water system designed by a professional to meet regulations and handle such flows.

Septic System Maintenance

- Malfunctioning septic systems can allow phosphorous and bacteria to leach into adjacent waterways.
- Maintain sewage and septic systems to prevent leaks and ensure proper functioning condition.
- Consult an authorized person prior to constructing, installing or making alterations to an existing septic tank or field.
- Create and keep on hand a diagram showing the location of your septic tank and disposal field.
- If not already in place, install watertight manhole extensions to simplify septic tank access.
- Make sure the access lids are structurally sound, secure and childproof.
- If access lids are buried, consider raising them above grade to facilitate access.
- Have the septic tank checked annually to determine how often the tank needs to be pumped out.
- Tanks are generally pumped every two to three years, which removes the accumulated sludge and scum that would otherwise reach the tile field and cause blockage resulting in a malfunctioning sewage system and costly repairs.
- Tank Pumping is the single most effective means of ensuring a long-lasting sewage system.
- Commercial septic tank additives are not necessary and not recommended.
- If pumps are used in the system, have any pump screens cleaned (make sure they are reinstalled) and have the control operations checked.
- Do not allow vehicles including ATV's to park on or drive over your sewage system.
- Divert roof drains, surface water, sump pumps and house footing drains away from the sewage system.
- Sewage systems should have a good cover of grass, ventilation and sunlight.
- Trees and shrubs should not be planted over sewage systems. However, trees and shrubs planted between your system and a watercourse would be beneficial. Keep the grass trimmed.
- **Be alert to these warning signs:**
 1. **Sewage surfacing over the tile field**
 2. **Sewage back-up in the house**
 3. **Mushy ground or greener grass**
 4. **Slow draining toilet or other drains**
 5. **Sewage odours**

Consult a qualified authorized septic tank professional to determine what is required to remedy the problem. Report the issue to the Director Lands and Resources so that action can be taken to remedy the problem.

EMP –Plan for Solid and Liquid Waste Management	Created by: EMP Technical Planning Team 05-04-2011	Date Modified: N/A
SOP: 3.02 – General Liquid Waste – Sewage System	Approved: By UT Executive 31-03-2011	Page 2 of 2

UT - Environmental Standard Operating Procedure

SOP 4.01 NATURAL RESOURCES HABITAT PROTECTION

The UT Environmental Management Plan was developed to ensure that the UT community use best management practices to protect UT lands. The component plans and SOPs developed for the following environmental issues are key to protecting habitat:

1. Fuel handling and storage
2. Solid and liquid waste management
3. Handling, storage and disposal of hazardous materials
4. Ground and surface water protection
5. Protection of Fish Habitat

Resource Mapping

It is strongly suggest a list of identified fish streams in the territory be compiled and they be put on a GIS map and made available for UT members and project proponents

FISH Habitat Best Management Practices

The following Best Management Practices guidelines are provided in Appendix 4.0 of the Appendices Binder and are to be followed when conducting operations and activities near Fish Habitat as follows:

- **Proponent's Guide to Information Requirements for Review Under the Fish Habitat Protection Provisions of the *Fisheries Act***
- **Request for DFO Review under the Fish Habitat Protection Provisions of the *Fisheries Act***
- **DFO Notification Form of works in fish habitat and Wetlands**
- **Measures to Protect Fish and Fish Habitat when Maintaining a Beach**
- **Measures to Protect Fish and Fish Habitat when Maintaining a Bridge**
- **Measures to Protect Fish and Fish Habitat when Conducting Punch and Bore Crossings**
- **Measures to Protect Fish and Fish Habitat when Constructing Overhead Lines**
- **Measures to Protect Fish and Fish Habitat when Maintaining Riparian Vegetation in Rights-of-way**
- **Measures to Protect Fish and Fish Habitat when Constructing an Isolated Pond**
- **Measures to Protect Fish and Fish Habitat when Carrying Out a Dry Open-cut Stream Crossing**
- **Measures to Protect Fish and Fish Habitat when Constructing Clear-Span Bridges**
- **Measures to Protect Fish and Fish Habitat when Maintaining Culverts**
- **Seawall Best Management Practices**

EMP – Plan for Natural Resources Habitat Protection	Created by: EMP Technical Planning Team 31-03-11	Date Modified: N/A
SOP – 4.01– Habitat Protection	Approved: By UT Executive 31-03-11	Page 1 of 2

Additionally, the **Protection of Cultural and Heritage Resources** SOP recognizes the importance of non-timber forest products and the need for their conservation, and the SOP for Environmental Impact Assessment (EIA) provides an opportunity to assess development activities that could potentially impact habitat on UT lands.

A proactive approach to protecting habitat begins by upholding the best management practices outlined in the SOPs listed above. Each of these SOPs recognizes the importance of habitat, especially riparian and wetland habitat. Traditional Ecological Knowledge (TEK) of the animals, plants, birds and fish that live on and adjacent to UT lands is essential to their protection, and the protection of their habitat. Sharing knowledge with the Lands and Resources Management Office and fellow UT Citizens and community members regarding the protection of habitat will also help strengthen the approach to habitat protection.

The following actions will serve to strengthen the UT’s ability to protect habitat:

1. Observe all the SOPs in the UT Environmental Management Plans. In particular the following:
 - a. Accidental spills of fuel or other hazardous material should be reported to the DLR so that proper follow-up is carried out.
 - b. Households should consider the use of environmentally friendly products, properly treat and maintain their septic systems, and undertake recycling whenever possible.
2. Sightings of known species-at-risk should be documented and reported to the UT Lands and Resources Director’s office.
3. UT Citizens are encouraged to participate in community meetings regarding their Environmental Management Plan and associated SOPs, so that their knowledge and concerns can be documented and incorporated as necessary.
4. UT Citizens are encouraged to carry out recreation activities in an environmentally conscientious, responsible manner:
 - a. choose to leave no trace, “pack it in pack it out” – whatever a person brings into a natural area must be taken out of the area when the person leaves;
 - b. be careful not to spill or dispose of harmful materials in the wilderness;
 - c. choose not to dispose of harmful materials into tidal waters, lakes rivers or riparian areas;
 - d. choose not to drive all-terrain vehicles or automobiles through sensitive habitat or fish bearing streams;
5. UT Citizens are encouraged to carry out harvesting activities with a conservation and sustainable approach:
 - a. be careful not to knowingly destroy parent plants; and
 - b. choose not to over-harvest medicinal plants, and only take or hunt what you need for you and your family.

EMP – Plan for Natural Resources Habitat Protection	Created by: EMP Technical Planning Team 31-03-11	Date Modified: N/A
SOP – 4.01– Habitat Protection	Approved: By UT Executive 31-03-11	Page 2 of 2

UT- Environmental Standard Operating Procedure

SOP 5.01 HOUSEHOLD HAZARDOUS MATERIALS

Household hazardous waste consists of any product that is considered to be explosive, corrosive, flammable or poisonous. Common household products include:

<p>Cleaning Products</p> <ul style="list-style-type: none"> • Oven cleaners • Drain cleaners • Wood and metal cleaners and polishes • Toilet cleaners • Tub, tile, shower cleaners • Bleach (laundry) • Pool chemicals 	<p>Indoor Pesticides</p> <ul style="list-style-type: none"> • Ant sprays and baits • Cockroach sprays and baits • Flea repellents and shampoos • Bug sprays • Houseplant insecticides • Moth repellents • Mouse and rat poisons and baits
<p>Automotive Products</p> <ul style="list-style-type: none"> • Motor oil • Fuel additives • Carburetor and fuel injection cleaners • Air conditioning refrigerants • Starter fluids • Automotive batteries • Transmission and brake fluid • Antifreeze 	<p>Workshop/Painting Supplies</p> <ul style="list-style-type: none"> • Adhesives and glues • Furniture strippers • Oil or enamel based paint • Stains and finishes • Paint thinners and turpentine • Paint strippers and removers • Photographic chemicals • Fixatives and other solvents
<p>Lawn and Garden Products</p> <ul style="list-style-type: none"> • Herbicides • Insecticides • Fungicides/wood preservatives 	<p>Miscellaneous</p> <ul style="list-style-type: none"> • Batteries (All types – Car acid, flashlight, cell phone etc.) • Mercury thermostats or thermometers • Fluorescent light bulbs • Driveway sealer

Currently, the bulk of household hazardous waste is either poured down the drain, where it will be incorporated into the ground water and eventually enters the rivers, streams and coastal waters or it is dumped onto the ground where it contaminates the soil.

If set out at the curb as municipal solid waste, it is transferred to a landfill but may still create toxic fumes and leach into the soil. If stored indefinitely in basements and garages, such hazardous waste may pose a serious fire, health or safety risk.

EMP –Plan for Hazardous Materials Handling, Storage & Disposal	Created by: EMP Technical Planning Team 31-03-11	Date Modified: N/A
SOP: 5.01 – Household Hazardous Materials	Approved: By UT Executive 31-03-11	Page 1 of 3

Table 1: Best management practices in dealing with handling, storage and disposal of common household hazardous materials:

DO	DO NOT
Use up any hazardous products you have	Throw it in the garbage. The product may end up in a landfill and may leak into the environment, causing water and air pollution
Give the product to someone else who will use it if you do not want to	Pour it down the drain or flush down the toilet. The hazardous materials will enter the municipal sewer system
Take it to a nearby municipal household hazardous waste collection depot; however not all products are accepted. For more information call the B.C. Recycling Hotline at 732-9253 or 1-800-667-4321.	Pour it into ditches, storm drains or gutters. The product may get into nearby waterways, poisoning plants and wildlife, contaminating the soil and causing harm to children who may come into contact with it
Try to avoid buying hazardous products in general	Burn it. The burning of hazardous waste will produce poisonous fumes, causing air pollution or even an explosion.
	Dump or bury it. The product may leak into the soil, contaminating it or the water. Children, pets and wildlife may be hurt. For example, dogs can be poisoned by drinking antifreeze left on roads or driveways.

Making Your Household Safer

Some simple choices can make your household safer, especially for children, seniors and pets. Using less toxic household products can keep your home healthier and help protect the environment.

1. Look at the warning words on the label. The least toxic products are those that don't have warning labels. Avoid products marked "Danger" or "Poison". Remember, the same warning words don't always mean the same kind of hazard.
2. Choose a product with no scent or only a mild scent. Scented products add a variety of chemicals to indoor pollution, especially challenging for children and people with respiratory ailments or sensitive skin.
3. Check the ingredients. Unlike food products, manufacturers are not required to list all the ingredients. Many products don't list ingredients in the 'Inert' category, and your family may be sensitive to these chemicals. Even when the ingredients are listed, the information can be confusing. Use the warning words as a guide. Learn more about potential health risks of products by name (National Institutes of Health).

EMP –Plan for Hazardous Materials Handling, Storage & Disposal	Created by: EMP Technical Planning Team 31-03-11	Date Modified: N/A
SOP: 5.01 – Household Hazardous Materials	Approved: By UT Executive 31-03-11	Page 2 of 3

4. Follow the product instructions for safest use. Reading the fine print will tell you about products which must not be mixed with other products (like ammonia and bleach), safe clean up and storage, and how to avoid water pollution or environmental harm. Instead of buying expensive household cleaners, using certain common and inexpensive household products can be an effective and frugal way to reduce your cleaning expenses while being less harmful to your environment.

The following provide alternatives to harsh or harmful household cleaners.

Baking Soda

Baking soda, or sodium bicarbonate, is a natural substance that neutralizes both acids and bases, so it eliminates odours rather than just covering them up. In cooking, baking soda releases carbon dioxide when heated, and this causes cookies, breads or cakes to rise. Baking soda can also act as an abrasive cleaner, perfect for removing stains from sinks, counter tops and even fine china.

White Vinegar

Vinegar is an inexpensive cleaner, good for removing hard water deposits, shining glass, windows and most metal surfaces. It can also remove stains and mildew. Use it in your coffeemaker to keep it brewing quickly. To use vinegar as a cleaner, use a clean spray bottle (not a bottle that has contained other chemicals) and pour 1 part white vinegar to 3 or 4 parts plain cool tap water. Give the bottle a good shake; the smell dissipates quickly. If you want to add extra cleaning power, add a squirt of natural liquid soap.

Borax (sodium borate)

Borax is a natural mineral that kills mould and bacteria. As an alternative to bleach, it deodorizes, removes stains and boosts the cleaning power of soap. Borax however should still be used with **CAUTION**. Boric Acid and borax can be toxic to children and pets, keep well out of their reach and inform other household members of the whereabouts and purpose of the borax and boric acid dough and/or powders.

EMP –Plan for Hazardous Materials Handling, Storage & Disposal	Created by: EMP Technical Planning Team 31-03-11	Date Modified: N/A
SOP: 5.01 – Household Hazardous Materials	Approved: By UT Executive 31-03-11	Page 3 of 3

UT - Environmental Standard Operating Procedure

SOP 5.02 ALTERNATIVES TO PESTICIDES

Pesticides are chemical and biological products used to kill and/or control pests and weeds. Herbicides, fungicides, rodenticides, miticides and other products form part of the large family of pesticides.

Both the federal and provincial governments strictly regulate pesticide use. Since pesticides have the potential to harm the environment, people and other organisms, they must be used according to strict safety guidelines. However, the UT Tribe does not endorse the use of chemical pesticides on their reserve lands. Rather, the UT encourages alternative forms of pesticide control. The following are best management practices for vegetation management and the control of common pests.

Vegetation Control (Weeds)

Industrial manual brushing and weeding programs provide valuable employment and offer an effective way of controlling unwanted vegetation and brush in cutblocks, and along roads. For small scale control of unwanted vegetation hand weeding, hoeing or tilling are more favourable and highly recommended options for controlling unwanted weeds in gardens and lawns.

The following are some general best management practices to help avoid the use of chemical herbicides around the household.

- Mow lawns to the proper height and at the proper frequency to maintain turf grass health, thereby minimizing the need for pesticides.
- Use organic mulches to reduce water loss through evaporation, to reduce soil loss due to exposure to wind and runoff, and to suppress weeds.
- Properly plant, maintain, prune, or trim trees, shrubs and other woody plants to maximize the plants' health.
- Utilize mechanical weeding practices, and weed regularly to “stay ahead” of the weeds, and reduce spread.
- Vinegar and water can be used to treat dandelions and other unwanted plants.

Common Pest Control

Prevention is the very best control or defence, and is the beginning of an intelligent pest management regime. To an insect or rodent, your home or building and its surroundings is a welcoming environment. Many places in your home can offer the perfect climate, moisture, temperature, food and/or conditions conducive to invasion or infestation by pests. All creatures have the same four requirements that humans have for survival: food, water, shelter, and warmth. Most structure invading pests are controlled when you simply control water (moisture for drinking and the relative humidity) because water is their most critical survival factor. Properly ventilate, install and maintain dehumidifiers, fans and/or air conditioners and quickly correct/repair all moisture problems.

Inspection is the second best control you can use to look for signs of unwanted pests. If you don't see anything during the day, conduct a night-time search. You must look everywhere.

EMP –Plan for Hazardous Materials Handling, Storage & Disposal	Created by: EMP Technical Planning Team 31-03-11	Date Modified: N/A
SOP: 5.02 – Alternative to Pesticide	Approved: By UT Executive 31-03-11	Page 1 of 3

Common Sense is the third best control; think before you act - many controls can be as simple as vacuuming up the pest, closing a window or vent, caulking, stepping on the "bug" or turning on a fan or dehumidifier. Decrease moisture. Properly install and maintain vents, vapour barriers, fans, air conditioners, and/or dehumidifiers. Moisture is the major destructive factor to homes and the major key to pest control elimination. Control moisture and you control pests and damage to your building.

Keeping Them Out

Exclusion is the first defence in making sure pests don't get into your home: seal cracks. Crawling pests enter through cracks in or around the foundation or siding or doors and windows, while flying insects usually come in through open doors and windows. An annual inspection of the foundation and siding to caulk cracks (use a good quality sealant) is a good idea. Be particularly careful to seal around exterior plumbing and electrical outlets. Make sure that door thresholds have good weather stripping under them and that the door and windows seal well when shut. Check that screens on windows, crawl space vents, and attic vents are intact and sealed around the edges. Remember 80% - 90% of all insect infestations migrate from the outside into your structure. Only certain types of pests are carried inside buildings to create pest infestations. These include fleas, mice and ants, so inspect for them. Don't forget to install door sweeps.

A mixture of soap and water can be used to treat aphids, many other soft-bodied insects such as caterpillars, thrips, mealybugs, spidermites, leafhopper, lace bugs and whiteflies.

Window screens are excellent for keeping insects out of a house, but screen doors are not very effective. This is because flies and mosquitoes are attracted to people or food odours so they hang around outside screen doors and whisk inside every time the door is opened.

Try to ventilate the house adequately without screen doors, at least on heavily used entrances. If screen doors are used, they should have strong spring closures that shut the door quickly and tightly. Glue strips, duct tape and repellents can be used to prevent many pest invasions, as well as sprinkling dry Tide® laundry soap powder, talcum powder, medicated body powder or Comet® as a barrier inside and outside.

Good design and management of exterior lighting is important to prevent insect problems.

- Avoid leaving porch lights on all evening to collect a cloud of moths and other insects and/or predators. Every time the door is opened, the insects swirling around the light are swept into the house. Minimize the attraction time by turning porch lights on only when they are needed. Sensor lights that switch on in response to motion are ideal because they light the area for arriving guests, but switch off after a few minutes (this saves energy too).
- When designing the lighting around the exterior of your home don't put light fixtures directly above the doors, especially over doors to decks or patios that might be used a lot in the evening. Place flood or spot lights a few feet away from the door and direct the light onto porches and stairs. This illuminates them safely, while keeping the mesmerized insects away from your door.
- Use yellow bulbs in yard light fixtures; flies and moths are not as attracted to yellow as they are to ordinary white light bulbs.

EMP –Plan for Hazardous Materials Handling, Storage & Disposal	Created by: EMP Technical Planning Team 31-03-11	Date Modified: N/A
SOP: 5.02 – Alternatives to Pesticide	Approved: By UT Executive 31-03-11	Page 2 of 3

- Manage your garbage. Keep garbage in sturdy, tightly covered containers and wash them out regularly with vinegar and water and maybe a bit of natural soap. This prevents flies from breeding and reduces the attraction for ants, yellow jackets and other insects.
- If the kitchen food garbage can be composted daily, the trash will contain little that is attractive to insects. Where composting is not possible, tightly wrap up kitchen garbage in sealed plastic bags and take it out frequently to a covered trash can.
- Avoid letting old clothes, newspapers, paper bags, cardboard, empty cans, and other trash accumulate in storage rooms, garages, etc., as these provide breeding sites for many household pests.

Healthy, organic soil prevents many pest and weed problems. Always remember that no one control will ever work in every situation. Try the simplest and safest control first and then, if that doesn't work, try some of the other control suggestions or a combination of the safer control suggestions.

EMP –Plan for Hazardous Materials Handling, Storage & Disposal	Created by: EMP Technical Planning Team 32-03-11	Date Modified: N/A
SOP: 5.02 – Alternatives to Pesticide	Approved: By UT Executive 31-03-11	Page 3 of 3

UT - Environmental Standard Operating Procedure

SOP 5.03 PESTICIDE USE

While the UT does not endorse the use of pesticides on its lands, it realizes that there may be circumstances that will unavoidably require the use of a pesticide, and that pesticide use often occurs on lands adjacent to UT lands. Provided an EIA is completed and negative impacts can be managed, the UT may support the alternative option of hack and squirt but does not support broadcast aerial spraying.

Given the nature of pesticides, it is therefore vital that proper procedures for the handling, use, storage and disposal of these products are followed.

Training

Completion of appropriate training and Certification by the province of British Columbia is a requisite for anyone who handles, dispenses or applies pesticides in an industrial fashion.

Storage

- An emergency plan outlining procedures for dealing with a hazardous material spill or leak should be posted by nearest exit, and should include information on the location of emergency and first aid equipment, emergency phone numbers, and clean-up instructions;
- Warning signs should be posted at all access points to a hazardous material storage area;
- An appropriate fire extinguisher for the materials being stored in the facility should be mounted nearby;
- A list of emergency numbers should be posted at storage site;
- An inventory of stored chemicals should be posted at storage site;
- Store the minimum quantity of pesticides needed;
- Ensure proper ventilation in storage area;
- Store chemicals on all-metal or all-plastic shelves. Sheet metal or plastic-lined wooden shelves are an acceptable alternative;
- Separate pesticides stored in different types of containers. A three-shelf system is preferred (Figure 2 sketch below). Shelves 12"-15" deep and 18" high are typically suitable. Bottom shelves should be at least 4" above floor level for ventilation;
- Floor storage of pesticides is not recommended;
- When large quantities of pesticide are required for short-term storage, wooden pallets can and should be used;
- Keep all chemicals separated from food, feed and water supplies;
- Separate combustible chemicals from oxidizing chemical supplies – read the label;

EMP –Plan for Hazardous Materials Handling, Storage & Disposal	Created by: EMP Technical Planning Team 31-03-11	Date Modified: N/A
SOP: 5.03 – Pesticide Use	Approved: By UT Executive 31-03-11	Page 1 of 3

FOR MORE INFORMATION ON PESTICIDES CONTACT:	
WCB Information Office	Local (604) 276-32000; Long distance 1-800-661-2112
BC Poison Control Centre	Local (604) 682-50500; Long distance 1-800-567-89111
Provincial Emergency Program	Long distance 1-800-663-34566
Agriculture Canada Hotline	Long distance 1-800-267-63155
Canadian Transport Emergency Centre	(CANUTEC) (613) 996-66666
Canadian Centre for Occupational Health and Safety	(CCOHS) 1-800-263-84666

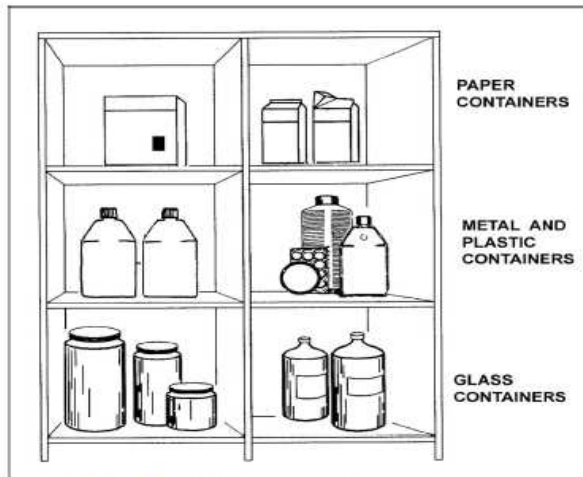


Figure 2: Pesticide Storage Shelf System

Handling

- Using restricted-use pesticides requires completion of a Pesticide Applicator Course;
- Pesticide Handling Hardware and protective clothing items, cleanup materials, and a first aid kit should be readily at hand;
- An appropriate fire extinguisher should be handy.
- An eye wash station or tools should be readily available, and should include 10 gallons of water to provide 15 minutes of continuous eye irrigation;
- Access to a list of emergency numbers is important to have available.

Disposal

- Empty containers should be triple-rinsed or cleaned to the point where they pose no threat to people, animals or the environment;
- Agri-chemical manufacturers and dealers in B.C. will accept and recycle well-cleaned containers;
- Never store expired chemicals or incompletely washed containers in an area not dedicated to pesticide storage;
- Separate incompatible pesticides and chemicals.
- Never dispose pesticides into water or sewer systems.

Emergency measures

Fires and spills require prompt action to ensure worker safety.

EMP –Plan for Hazardous Materials Handling, Storage & Disposal	Created by: EMP Technical Planning Team 31-03-11	Date Modified: N/A
SOP: 5.03 – Pesticide Use	Approved: By UT Executive 31-03-11	Page 2 of 3

The following actions are necessary in the event of fire:

- The storage facility must be evacuated immediately and bystanders kept away;
- People and animals downwind of a burning pesticide building must be evacuated; and
- The fire department must be contacted and notified of the building’s contents.

In case of spill, the following steps are essential:

- People, animals and vehicles must be prevented from nearing any spill;
- Information on proper cleanup procedures must be obtained;
- Personal protective gear must be worn;
- Enclosed areas must be ventilated;
- At least two people should be involved in any cleanup procedure;
- If cleanup is beyond the capability of the user or operator, the Provincial Emergency; and
- The Provincial Emergency Program should be contacted at 1-800-663-3456 for assistance, and as per the UT’s spill reporting protocol below:

Spill Reporting Levels:

Material	Reportable Spill Quantity Levels*
Antifreeze	10 L
Diesel Fuel	100 L
Gasoline	100 L
Hydraulic Oil	100 L
Lubricating Oils	100 L
Aviation Fuel	100 L
Paints and Paint Thinners	100 L
Solvents	100 L
Pesticides	1 Kg
Explosives	Any
Other Polluting Substance (s)	200 Kg
This table refers to terrestrial spills, Any amount of above materials spilled in/on water must be reported to P.E.P	

*Spill reporting levels based on the Provincial Spill Reporting Regulation (B.C. Reg. 263/90)

EMP –Plan for Hazardous Materials Handling, Storage & Disposal	Created by: EMP Technical Planning Team 31-03-11	Date Modified: N/A
SOP: 5.03 – Pesticide Use	Approved: By UT Executive 31-03-11	Page 3 of 3

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UT - ENVIRONMENTAL STANDARD OPERATING PROCEDURES

SOP 6.01 SMALL CONTAINERS ≤ 230L (CANISTERS, JERRY CANS, PAILS, & DRUMS)

NOTE: All jerry cans, pails and drums with a capacity of more than 20 litres and which are stored at or near individual's homes on UT lands must be kept a minimum 25m distance from roadways and pedestrians. They must be kept out of direct sunlight, and protected from potential impact, preferably in an adequately ventilated storage shed under lock and key. Adequate spill kits are required to be carried by those individuals who will be carrying fuel while working for the UT.

CONTAINER DESIGN

- All small containers, jerry cans, pails and drums are to be in good useable condition.
- Containers must be distinctly marked or labelled as "Flammable", "Keep Away from Heat, Sparks and Open Flames", and "Should be Kept Closed When Not in Use".
- Adequately seal containers with properly fitting lids, caps, bungs or valves to prevent spills and leaks.

OPERATIONS

Spill Control

- Spill Control is required for small containers of flammable and combustible liquids that have the potential to spill.

Safety Awareness

- Appropriate signs should be displayed where storage or dispensing take place
- All fuel containers must be labelled in accordance with Workplace Hazardous Material Information System (WHMIS), and according to the Fire Code.
- Smoking is not permitted where dispensing is being carried out.
- One 20-B:C rated fire extinguisher or two 10-B:C rated fire extinguishers are required where containers are stored within a building or structure.
- Containers must not be filled beyond their safe filling level.

DISPENSING

- Ensure that dispensing procedures are clearly written and posted for all operators to see.
- Use an electric fuel pump when dispensing from a drum. When an electric fuel pump is not available or not practical, use a manual pump.
- Always store and secure the fuel hose above the drum to prevent siphoning.
- Keep the drum upright; avoid dispensing from a horizontal drum.

TRANSPORTATION

- If multiple containers are carried on or in a vehicle and the combined capacity exceeds 2000 litres, the following conditions apply:
 - A shipping document must be completed for the goods hauled,
 - The operator must have Transportation of Dangerous Goods (TDG) training and possess a certificate, and
 - The load must be appropriately placarded.

EMP – Program Safe Fuel Handling & Storage	Created by: EMP Technical Planning Team 31-03-11	Date Modified: N/A
SOP –6.01 Small Containers ≤ 230L	Approved: By UT Executive 31-03-11	Page 1 of 2

- No UT member or individual on UT land shall drive or operate a vehicle carrying a load unless the load is secured in a manner which ensures that the load will not:
 - Escape from the vehicle, or
 - shift or sway in a manner that may affect the operation of the vehicle.
- No UT member or individual on UT land shall drive or operate a commercial vehicle while the vehicle is carrying drums or barrels on end (upright) unless:
 - the drums or barrels are separated by dunnage when stacked on end, or
 - the vehicle has sides, sideboards or side stakes and the drums or barrels are blocked, tied or lashed down with hardware adequate to prevent the load from shifting on the vehicle.

LOAD TIE DOWNS MUST:

- Have a safe working load of not less than the weight of the load they secure;
- Be marked directly, or on a tag permanently attached, with:
 - the safe working load as warranted by the manufacturer or by a registered professional engineer, or
 - sufficient information so as to enable a peace officer to determine the manufacturer, grade, and quality of the tie down.
- Not to be used if worn beyond a wear limitation specified by the manufacturer, or to the extent that they have become unsafe;
- When in use be protected against abrasion; and
- When in use have any load binder handle that forms part of the tie down assembly locked in place and secured by rope, wire or chain or a locking mechanism that restricts any movement of the handle, and be designed, constructed and maintained so that the driver of a vehicle can tighten them, unless the tie down consists of steel, fibre or synthetic strapping, if the strapping is taut when in use.

DOCUMENTATION AND TRAINING

Inspection

- All sites that require cleanup of contaminated soil must follow the UT Environment Act and the BC Environmental Management Act, Contaminated Sites Regulation.

EMERGENCY RESPONSE

- Fuel spills greater than 100 litres must be reported to the Provincial Emergency Program (PEP) telephone 1-800-663-3456.
- Ensure that spills are recovered and that all contaminated soil is removed to an approved location or treated appropriately.
- Follow Petroleum Emergency Response Procedures

EMP – Program Safe Fuel Handling & Storage	Created by: EMP Technical Planning Team 31-03-11	Date Modified: N/A
SOP –6.01 Small Containers ≤ 230L	Approved: By UT Executive 31-03-11	Page 2 of 2

ENVIRONMENTAL STANDARD OPERATING PROCEDURES

SOP 6.02 SMALL TDG TANKS ≤ 454L TRUCK-BOX FUEL TANKS/TIDY TANKS

NOTE: All tidy tanks that are stored at or near individual homes on UT lands must be kept a minimum 25m from roadways and pedestrians. They must be kept out of direct sunlight, and protected from potential impact, preferably in the back of the transporting vehicle or off the ground on a stable platform capable of containing leaks and spills should they occur. Adequate spill kits are required to be carried by those individuals who will be carrying fuel while working for the UT.

TANK DESIGN

- All small tanks ≤ 454L must be designed, constructed, filled and closed so that, under normal conditions of handling and transport, there will be no discharge, emission or escape of the dangerous goods from the container that could constitute a danger to public safety– see manufacturer’s details.
- Small tanks (≤ 454L) used for transporting diesel fuel and other combustible liquids must meet the CCME and Transport Canada Tank Standards.

OPERATIONS

Spill Control and Secondary Containment

- Secondary containment is required for any truck-box fuel tank that is > 230L and removed from the truck, trailer or mobile unit and operated in a fixed location for any length of time.

Safety

- Signs, indicating that the ignition must be turned off and smoking is not permitted while the vehicle is being refuelled must be visible to every driver approaching the dispenser.
- Any vehicle fitted with a portable fuel tank is required to have at least one 20-B:C rated portable fire extinguisher or two 10-B:C rated portable fire extinguishers that are within 9m of the truck-box fuel
- A truck-box fuel tank must be labelled with a flammable/combustible sticker or placard so that it is visible from outside the truck.
- Tanks must not be filled beyond their safe filling level.

DISPENSING

- Hoses and nozzles used for dispensing fuel should be maintained in good repair. Hose nozzle valves must conform to CAN/ULC-S620-M, “Hose Nozzle Valves for Flammable and Combustible Liquids”.
- Use nozzles that must be kept open by continuous application of manual pressure. An automatic shut-off nozzle must be used when using an integral hold-open device.
- Use only manufacturer’s specified pressure relief security caps.
- Do not use any object or device to maintain the flow of fuel that is not an integral part of the hose nozzle valve assembly.

EMP – Program Safe Fuel Handling & Storage	Created by: EMP Technical Planning Team 31-03-11	Date Modified: N/A
SOP –6.0.2 Small TDG Tanks ≤ 454L (Tidy Tks)	Approved: By UT Executive 31-03-11	Page 1 of 3

- When a hose nozzle valve with a hold-open device is used, a breakaway coupling conforming to CAN/ULC-S644-M, Emergency Break-away Fittings for Flammable and Combustible Liquids shall be provided.
- Secure nozzles in the back of pickup trucks with some means of drip containment.
- When dispensing flammable liquids, ensure that static electrical charges are controlled by establishing an electrical connection between the tank or container and truck box fill stem, or by providing other appropriate measures as applicable.
- Use fuel dispensing pumps conforming to good engineering practice, and designed for flammable or combustible liquids.
- Operators should minimize the potential for overfilling a truck-box fuel tank by providing continuously supervised filling operations using suitably qualified personnel.
- Do not fuel or service equipment within the riparian management area of a stream or wetland, or within 30m of a lakeshore or tidal waters identified in an operational plan, unless:
 - equipment is hand held, or
 - fuelling or servicing is required for carrying out fire fighting activities, required to move broken down equipment, or authorized by the district manager (Ministry of Forest and Range).

TRANSPORTATION

Load Security

- No person shall drive or operate on a highway a vehicle carrying a load unless the load is secured in a manner which ensures that the load will not:
 - escape from the vehicle, or
 - shift or sway in a manner that may affect the operation of the vehicle.
- Tanks should be placed on approved floor rubber mat or equivalent material to prevent the tank from rubbing on the truck box platform.

DOCUMENTATION AND TRAINING

Inspection

- All sites that require cleanup of contaminated soil must follow the UT Environment Act, the BC Environmental Management Act, and Contaminated Sites Regulation.
- Ensure that drips and leaks are routinely cleaned and monitored so that the truck box remains clean.

EMERGENCY RESPONSE - SPILLS

- Fuel spills greater than 100 litres must be reported to the Provincial Emergency Program (PEP) telephone 1-800-663-3456.
- Ensure that spills are recovered and that all contaminated soil is removed to an approved location or treated according to professional expertise.
- All vehicles transporting fuel must have and maintain a spill response kit capable of containing and absorbing fuel spills.
- Spill response procedures and a current spill response plan must be provided with the vehicle.

EMP – Program Safe Fuel Handling & Storage	Created by: EMP Technical Planning Team 31-03-11	Date Modified: N/A
SOP –6.02 Small TDG Tanks ≤ 454L (Tidy Tks)	Approved: By UT Executive 31-03-11	Page 2 of 3

UT - ENVIRONMENTAL STANDARD OPERATING PROCEDURES

SOP 6.03 LARGE TDG TANKS > 454L TANK VEHICLES

TANK VEHICLE DESIGN

NOTE: Adequate spill kits are required to be carried by those individuals who will be carrying fuel while working for the UT.

Tank Trucks

- The tank truck must be certified to the current CSA B620-1987/TC306 standard. If the proposed CSA B620-98/TC406 standard is adopted into the TDG Regulations, upgrades will not be required to the tank truck as long as it continues to pass inspections – see manufacturer’s details.
- The current inspection requirements for tank trucks include:
- inspection by a facility that is registered by Transport Canada, visual inspections by the operator is required every 2 years and pressure testing is required every 5 years,
- routine inspections and monitoring should be logged or documented, and,
- A tank truck must meet the current CSA B620-98/TC406 standard.
- Ensure that all trucks used to transport fuel tanks meet commercial vehicle inspection requirements.
- All large TDG tanks >454 L must meet UN31A or UN31B standard for flammable or combustible liquids – see manufacturer’s details.
- Ensure that all tank trucks, trailers and semi-trailers used to transport fuel tanks meet commercial vehicle inspection requirements to ensure the trucks meet an industrial standard for safety and performance.

OPERATION

Spill Control & Secondary Containment

- A fuel storage tank > 230L requires spill control (or secondary containment) when it is removed from a mobile unit and installed in a fixed location.
- Consider additional spill control for all fuel storage and dispensing units (including secondary containment systems) that operate in high-risk areas as determined by risk assessment.

Safety Awareness

- Signs, indicating that the ignition must be turned off and smoking is not permitted while the vehicle is being refuelled must be visible to every driver approaching the dispenser.
- Maintain at least one 20-B:C portable fire extinguisher with the tank vehicle.
- During loading and unloading bulk fuel from a tank vehicle, measures shall be taken against static electrical charges (grounding cable).
- Ensure fuel storage is physically protected against collisions, including moving the tank vehicle (or mobile skid) to a safe location or place a barrier (i.e. a log or equivalent protection) between the traffic area and the tank.
- Tanks must not be filled beyond their safe filling level.

EMP – Program Safe Fuel Handling & Storage	Created by: EMP Technical Planning Team 31-03-11	Date Modified: N/A
SOP –6.0.3 Large TDG Tanked Vehicles > 454L	Approved: By UT Executive 31-03-11	Page 1 of 4

- When providing collision protection for fuel storage areas, consider selecting a site that is:
 - easily visible, and
 - away from traffic.

NOTE: Spill secondary containment, is not required for tank vehicles where the tank is mounted or built as an integral part of the vehicle including tank trucks, trailers and semi-trailers unless it is parked at a stationary location.

DISPENSING

- Post all fuel handling procedures.
- Operators should always stay with the nozzle while refuelling.
- Use fuel-dispensing pumps according to manufacturer’s specifications.
- A storage tank shall be prevented from being overfilled by providing one or both of the following:
 - continuous supervision of the filling operations by personnel qualified to supervise such operations, and/or
 - an overfill protection device that meets the intent of ULC/ORD-C58.15, “Overfill protection Devices for Flammable Liquid Storage Tanks”.
- Refuelling equipment from a tank vehicle is permitted if the following conditions are met:
 - only diesel fuel is dispensed into the fuel tanks (not gasoline),
 - fuelling is conducted in connection with commercial or industrial operations,
 - fuelling is conducted outdoors on commercial or industrial establishments,
 - fuelling is conducted using approved hose-reel and automatic closing nozzles,
 - and appropriate training and equipment are supplied to deal with any incidental spillage.
- Do not fuel or service equipment within a riparian management area of a stream or wetland, or within 30m of a lakeshore or tidal waters identified in an operational plan, unless
 - equipment is hand held, or
 - fuelling or servicing is required for carrying out fire fighting activities, required to move broken down equipment, or authorized by the UT DLR
- Do not use any object or device to maintain the flow of fuel that is not an integral part of the hose nozzle valve assembly.
- When a hose nozzle valve with a hold-open device is used, a break-away coupling conforming to CAN/ULCS644-M, “Emergency Break-away Fittings for Flammable and Combustible Liquids” shall be provided.
- Fuel hose length must not exceed 4.5m, or 6m where a retracting system is used.
- There should be no leaks from the valve or pipe system to the pump. Draw-off valves must be threaded at the discharge end or otherwise designed to provide a liquid-tight connection to the delivery hose.
- Any delivery hose that has the potential to cause a spill, if it were pulled from the delivery pump or valve, should be fitted with a breakaway valve.

EMP – Program Safe Fuel Handling & Storage	Created by: EMP Technical Planning Team 31-03-11	Date Modified: N/A
SOP –6.03 Large TDG Tanked Vehicles > 454L	Approved: UT Executive 31-03-11	Page 2 of 4

- Gravity-feed systems are considered high-risk facilities and should be phased out as soon as possible. Additional control measures are strongly recommended to ensure:
 - the bottom-of-tank valve is protected,
 - that the dispensing hose will not be pulled from the bottom of the tank without a break-away valve engaging,
 - additional collision protection is installed to prevent the accidental contact with the tank,
 - the tank cannot be overfilled,
 - access to the top of the tank meets legal requirements, and
 - the volumes of fuel are recorded through a meter system.
- The use of automatic shut-off nozzles is recommended to discourage the use of devices to hold the nozzle valve assembly open while refuelling.
- Close and lock valves as required.

TRANSPORTATION

Load Security

- No UT member or other individual on UT land shall drive or operate a vehicle carrying a fuel load unless the load is secured in a manner which ensures the load will not:
 - escape from the vehicle, and
 - shift or sway in a manner that may affect the operation of the vehicle.
- Appropriate placards must be visible on all four sides of any fuel truck or mobile refuelling trailer that is > 2000 L whether filled or empty.

DOCUMENTATION AND TRAINING

Transportation of Dangerous Goods Documentation

- TDG documentation (TDG 2.31 & TDG4.8) is required when transporting more than 2000L of TDG Class 3 – flammable liquid. The shipping document must show:
 1. document number and date,
 2. the name, address and signature of the shipper
 3. the consignee’s name and address and the carrier’s name,
 4. fully trained-operator status,
 5. full description and total volume of dangerous good(s),
 6. a 24 hour contact number, and
 7. the type and number of placards, if required. (TDG Part V).
- When transporting an empty tank, the shipping document must use the words: “Residue – Last Contained”.
- Tanks that are cleaned and purged do not require any documentation.

Inspection

- All sites that require cleanup of contaminated soil must follow the UT Environment Act, the BC Environmental Management Act & Contaminated Sites Regulation.
- Regular inspections must be conducted and documented to ensure that fuel trucks and mobile refuelling tanks meet all safety specifications. (TDG 7.33.1).
- Inspections should be documented and inspection reports kept on file.

EMP – Program Safe Fuel Handling & Storage	Created by: EMP Technical Planning Team 31-03-11	Date Modified: N/A
SOP –6.03 Large TDG Tanked Vehicles > 454L	Approved: By UT Executive 31-03-11	Page 3 of 4

Training and Signage

- All drivers who transport bulk fuel should be trained through the Canadian Petroleum Producers Institute (CPPI) Drivers Certification Training and TDG certification course or equivalent.
- Only experienced drivers with a TDG certificate and emergency response training (ERT) should transport bulk fuel.
- Post clearly legible operating instructions at card or key activated dispensers.
- Emergency instructions must be conspicuously posted.
- Spill response training needs should be assessed and implemented annually.

EMERGENCY RESPONSE – SPILLS

- Post-spill emergency response procedures and maintain a spill response plan with the fuel system.
- Fuel spills greater than 100 Litres must be reported to the Provincial Emergency Program (PEP) telephone 1-800-663-3456.
- Ensure that spills are recovered and that contaminated soil is removed to an approved location or treated by a professional with the appropriate expertise.
- All vehicles used to transport fuel must have a spill response plan, and spill response kit capable of containing and absorbing fuel spills.

EMP – Program Safe Fuel Handling & Storage	Created by: EMP Technical Planning Team 31-03-11	Date Modified: N/A
SOP –6.0.3 Large TDG Tanked Vehicles > 454L	Approved: By UT Executive 31-03-11	Page 4 of 4

ENVIRONMENTAL STANDARD OPERATING PROCEDURES

SOP 6.04 FIXED LOCATION ABOVEGROUND STORAGE TANKS (AST) > 230L

TANK DESIGN

- All storage tanks for combustible and flammable liquids must be built and maintained in accordance with Underwriters Laboratories of Canada (ULC) tank specifications, and bear a current ULC certification plate or label – see manufacturer’s details.
- To ensure a tank meets a specified engineering standard, check for a current certification plate or label.
- Where a storage tank > 230L is removed or abandoned, it is permitted to be reused for the storage of flammable liquids and combustible liquids only after having been refurbished and certified by an appropriate certification authority to ensure it conforms to one of the acceptable standards.
- Materials, systems, equipment and procedures not specifically described in the Fire Code, or that vary from the specific requirements of the Fire Code, or for which no recognized test procedure has been established, are permitted to be used if it can be shown that these alternatives are equivalent on the basis of tests, evaluations or past performance.
- All aboveground storage tanks must be installed on firm foundations designed to minimize uneven settling and corrosion, and to prevent the design stress of the tank from being exceeded.
- Multiple tanks must have a minimum of 1m separation between them.
- Hose Nozzle valves must conform to CAN/ULC-S620-M, “Hose Nozzle Valves for Flammable and Combustible Liquids”.
- When a hose nozzle valve with a hold-open device is used, a breakaway coupling conforming to CAN/ULCS644-M, “Emergency Break-away Fittings for Flammable and Combustible Liquids” shall be provided.
- Valves at the storage tank must be constructed of steel according to the Fire Code.
- Annual risk assessments should be conducted on all gravity-feed systems currently in operation and control measures implemented to reduce and manage the risk(s).
- Gravity-feed systems are considered high-risk facilities and should be phased out as soon as possible new ones are not to be installed. Additional control measures are strongly recommended to ensure:
 - the bottom-of-tank valve is protected,
 - the dispensing hose will not be pulled from the bottom of the tank without a breakaway valve engaging,
 - additional collision protection is installed to prevent the accidental contact with the tank,
 - the tank cannot be overfilled,
 - access to the top of the tank meets legal safety requirements,
 - the volumes of fuel are recorded through a meter system, and
 - a written record of daily inspections and recorded volumes is maintained.

EMP – Program Safe Fuel Handling & Storage	Created by: EMP Technical Planning Team 31-03-11	Date Modified: N/A
SOP –6.04 Fixed Location (AST) > 230L	Approved: By UT Executive 31-03-11	Page 1 of 4

TEMPORARILY OUT-OF-SERVICE TANKS

- Aboveground storage tanks, which will be out of service for a period not exceeding 180 days, must be isolated by closing and securely locking the necessary valves, or by capping the piping from the tank.
- If the tank contains flammable or combustible liquids, the liquid level in the tank must be measured and the readings compared at intervals not greater than one month.
- When an aboveground storage tank will be out of service for a period exceeding 180 days:
 - all liquid and vapour must be removed from the tank and its connected piping,
 - and the tank markings must clearly indicate that the tank is empty.
- If the aboveground tank is on a cradle, so that the bottom of the tank is exposed, the bottom of the tank should be visually inspected and documented on a regular basis.
- Remote facilities, that are difficult or impossible to access on a monthly basis, should be secured to prevent spills and contamination. This may include leak detection monitoring equipment with wireless communication alarms.

OPERATION

Spill Control & Secondary Containment

- Spill control may include one or more of the following:
 1. a double-walled tank,
 2. a tank-in-a-box system,
 3. a graded or sloped site capable of diverting and containing a spill and preventing spills from entering natural waterways, storm drains and sanitary sewers,
 4. a paved or concrete pad sloped so that water and spilled fuel is directed to an oil/water separator, and/or
 5. a non-combustible barrier of sufficient height to contain the spill.
- Secondary containment areas must not be used for storage purposes.
- Tanks within the containment area must be on the ground, mounted on a skid or securely positioned on a cradle. The cradle or tank support shall have a fire-resistance rating of not less than 2 hours (for example, steel).
- Precipitation must not be allowed to accumulate within the containment area.

SAFETY AWARENESS

- Signs, indicating that the ignition must be turned off, smoking is not permitted while the vehicle is being refuelled, and any other fuelling procedure, must be visible to every driver approaching the dispenser.
- At least 2 portable 20-B:C rated fire extinguishers must be available within 9m of the work area (Appendix 2).
- Establish proper bonding, grounding and isolation components for protection against static charges during loading of tank vehicles, or when transferring flammable liquids or combustible liquids.
- Ensure fuel storage tank is physically protected against collisions.

EMP – Program Safe Fuel Handling & Storage	Created by: EMP Technical Planning Team 31-03-11	Date Modified: N/A
SOP – 6.04 Fixed Location (AST) > 230L	Approved: By UT Executive 31-03-11	Page 2 of 4

DISPENSING

- All operators must stay with the fuel nozzle while refuelling.
- Fuel dispensing hose length must not exceed 4.5m, or 6m where a retracting system is used.
- An automatic shut-off nozzle must be used when using an integral hold-open device.
- Do not use any object or device to maintain the flow of fuel that is not an integral part of the hose nozzle valve assembly.
- Any delivery hose that has the potential to cause a spill, if it were pulled from the delivery pump or valve, must be fitted with a breakaway valve.
- The fuel dispensing hose should be stored inside the containment berm where applicable,
- The use of automatic shut-off nozzles with an integrated hold-open device is recommended to discourage the use of devices or objects to hold the nozzle valve assembly open while refuelling.
- There must be no leaks from the valve or pipe system to the pump. Draw-off valves must be threaded at the discharge end or otherwise designed to provide a liquid-tight connection to the delivery hose.
- During loading and unloading bulk fuel from a tank vehicle, precautionary measures must be taken to prevent static electrical charges and contain potential loading apron spills.
- All pumps used to transfer fuel should conform to manufacturer's' specification,
- Nozzles should be equipped with some means of drip containment.
- Keep hoses off the ground and valves closed and locked when not in use - A hose retractor should be used to keep the hose elevated and off the ground when not in use.
- Fixed dispensers must be protected against collision damage by:
 1. a concrete island not less than 100mm high, or
 2. guard rails.

POLLUTION PREVENTION

- Storage tanks must not be overfilled, and precautions must be taken to prevent overflow or spillage by providing continuous supervision of the filling operations by personnel qualified to supervise such operations.
- To help minimize spills while filling the tank, an automatic overfill protection warning system should be installed and an over-fill spill box should be built and installed around the fill stem pipe to catch any overfill.

DOCUMENTATION AND TRAINING

Inspection & Documentation

- Visual inspections of the piping system, pumps and ancillary equipment for leaks spills and obvious abnormal conditions must be made on a daily basis and during each shift. Any leakage must be repaired immediately. At fuel dispensing stations where the tank is resting on the ground (and visual inspection beneath the tank is not possible) the measurement (by tank dip) and
- computation of any gain or loss of liquid shall be taken each day that the station is in operation.

EMP – Program Safe Fuel Handling & Storage	Created by: EMP Technical Planning Team 31-03-11	Date Modified: N/A
SOP – 6.04 Fixed Location (AST) > 230L	Approved: By UT Executive 31-03-11	Page 3 of 4

- All sites that require cleanup of contaminated soil must follow the UT Environmental Act and the BC Environmental Management Act , Contaminated Sites Regulation.
- Keep a record of all fuel volumes before and after deliveries.

Training and Signage

- Ensure that the training of fuel dispensing attendants includes procedures for:
 1. supervising the dispensing of flammable and combustible liquids,
 2. using appropriate measures to prevent sources of ignition from creating a hazard at the dispensers (engines off no cell phone us,
 3. taking appropriate action in the event of a spill to reduce the risk of fire, and
 4. shutting off the power to all dispensers in the event of a spill or fire.
- Spill-training and fire-training requirements should be assessed and implemented annually.
- All drivers who transport bulk fuel should be trained through the Canadian Petroleum Producers Institute (CPPI) Drivers Certification Training and TDG certification, or equivalent.

EMP – Program Safe Fuel Handling & Storage	Created by: EMP Technical Planning Team 31-03-11	Date Modified: N/A
SOP – 6.04 Fixed Location (AST) > 230L	Approved: By UT Executive 31-03-11	Page 4 of 4

UT - ENVIRONMENTAL STANDARD OPERATING PROCEDURES

SOP 6.05 EMERGENCY SPILL RESPONSE GENERAL PROCEDURES

- Post written Emergency Fuel Spill response procedures (Page 2) and maintain an emergency response manual with the fuel facility.
- A spill response kit capable of containing and absorbing fuel spills must be available onsite, maintained and re-supplied when used.
- Ensure that spills are recovered and that contaminated soil is removed to an approved location or treated by a professional with the appropriate expertise.
- Fuel spills greater than 100 Litres must be reported to the Provincial Emergency Program (PEP) telephone 1-800-663-3456.

KEY SPILL RESPONSE ACTION

Act Fast & Think Safety

1. Warn people in the immediate vicinity and evacuate if necessary.
2. Extinguish all sources of potential ignition and enforce No Smoking.
3. Use common sense. Act quickly but ensure personal safety and use of Protective Clothing.
4. Shut off pumps and other equipment, close valves.

Containment and Recovery on Land

1. Mark the perimeter of the spill and block off all drains, culverts and ditches.
2. Dig recovery ditches around the perimeter to contain the spill.
3. Surround the spill with earth, peat, straw, sand, booms, commercial absorbents booms.
4. Obtain approval from Ministry of Environment to properly dispose of soil.

Containment and Recovery on Water

1. In a ditch or stream use a tarp containment system, or booms.
2. In open water divert the spilled product into a containment system using booms (absorbent and synthetic).
3. Use absorbent pads or pumps to extract the spilled product.

Recovery, Disposal and Site Restoration

1. Confirm disposal options and approval with the Ministry of Environment.
2. Document (notes and photos) the spill on a spill report form.
3. Take samples of contaminated soil.
4. Spills exceeding the following levels must be reported to the B.C. Provincial Emergency Program (PEP) 1-800-663-3456 (24-hour emergency number).

EMP – Program Safe Fuel Handling & Storage	Created by: EMP Technical Planning Team 31-03-11	Date Modified: N/A
SOP – 6.05 Emergency Spill Response	Approved: By UT Executive 31-03-11	Page 1 of 3

SOP 6.05* EMERGENCY RESPONSE - FUEL AND OIL SPILLS - *POST at SITE

For ALL Petroleum Fuel or Oil Spills, the Procedures are as follows:

- 1) **Assess for protection of Life and Safety** – Protect yourself and others. If there is a risk of fire, evacuate the area.
- 2) **Assess the situation** – do you know what spilled; what its hazards are (refer to MSDS); what you can do with the equipment and protective equipment you have?
- 3) **Communicate with UT office** – advise of situation (250-724-1832). Do not use equipment which may generate sparks (including radios and cell phones) in an area where you can smell fuel vapours – move a safe distance away to make call.
- 4) **If safe, stop the source.** Turn off a valve, plug the leak, and roll the drum/container, if it can be done safely, so the leak opening is at the top, etc. - Attempt to stop the flow.
- 5) **Secure the area** – place cones, erect barricades, rope lines, caution tape or other means to prevent unintentional access into spill area. Be aware of the possibility that the spilled product may produce flammable vapours.
- 6) **Petroleum liquid spills which enter water courses** regardless of amount (i.e. causes rainbow sheen) **or onto the ground if over 100 litres must be reported to the Provincial Emergency Program (PEP) 1-800-663-3456 (24-hr) by the person in charge of the spill.**
- 7) **Plan response – control, containment, and then clean-up.**
- 8) **Put on rubber boots or booties, coated disposable coveralls or rain gear, nitrile or neoprene gloves, and a half-face respirator (if fuel spill)** before working on the spill – not after you get splashed.
- 9) **Control the release** – stop the flow by plugging the leak, turning the container, setting up a method of capturing the spill, pumping out remaining product, etc.
- 10) **Contain the spill**
 - a. **boom the product** – if a fuel or oil product is approaching the water, set a hydrocarbon boom in the water, along the shoreline. If the product is on land, boom just beyond the perimeter of the spill.
 - b. **block drainage openings that could receive the product**, including those a bit distant as weather or cleanup activities can result in an unexpected spread of the product.
 - c. **divert flow from entering water or other sensitive areas** with non-reactive materials such as boom, gravel, sand bags, digging a trench, etc.
- 11) **When containment and control have been achieved, clean up spill by removing absorbents, contaminated soil, contaminated water or other contaminated materials. Clean facilities or equipment contaminated by spill and dispose of contaminated materials thru a licensed Hazardous Waste Disposal Facility.**
- 12) **Conduct an investigation and identify and report the root cause of the spill, prevention options, and evaluate whether procedures need to be changed.**
- 13) **Review report with Chief and Council & implement approved action to prevent re-occurrence.**

***TO BE POSTED AT DISPENSING SITE or in DISPENSING VEHICLE**

EMP – Program Safe Fuel Handling & Storage	Created by: EMP Technical Planning Team 31-03-11	Date Modified: N/A
SOP – 6.05* Emergency Spill Response	Approved: By UT Executive 31-03-11	Page 2 of 3

Spill Kit Typical Contents for Hydrocarbon (Gas, Diesel, Oil)

Contents	Quantity
Oil Absorbent Boom (50')	2
Oil Absorbent Socks (4')	30
Oil Absorbent Pads	200
Plugging Compound	500 grams
Plastic Waste Bags	4
Instruction Booklet	1
Disposable Coveralls	4
Goggles	2
Additional Supplies (optional):	
Oil Absorbent Boom (150' spool)	1
Oil Absorbent Pads (Bales of 200)	1

Spill Reporting Levels: (Material Reportable Spill Quantity Levels)

Antifreeze 10 L	*Diesel Fuel 100 L
Paints and Paint Thinners 100 L	*Gasoline 100 L
Pesticides 1 Kg	*Hydraulic Oil 100 L
Explosives Any	*Lubricating Oils 100 L
*Solvents 100 L	*Aviation Fuel 100 L
Other Polluting Substance (s) 200 Kg	

Note: This table refers to terrestrial spills and spill reporting levels are based on the Provincial Spill Reporting Regulation (B.C. Reg. 263/90). It should be noted that any amount of above petroleum Materials designated with an asterisk* and which are spilled in/on water regardless of the amount must be reported to P.E.P**phone# below.

KEY UCHUCKLESAHT TRIBE EMERGENCY CONTACTS:

Director of Lands and Resources can be contacted at:

The UT office general telephone number: (250) 724-1832

Provincial Emergency Program 1-800-663-3456 (24-hour #)**

EMP – Program Safe Fuel Handling & Storage	Created by: EMP Technical Planning Team 31-03-11	Date Modified: N/A
SOP – 6.0.5 Emergency Spill Response	Approved: By UT Executive 31-03-11	Page 3 of 3

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UT ENVIRONMENTAL STANDARD OPERATING PROCEDURE

SOP 7.01 Cultural Resources Assessment

ADMINISTRATIVE PROCEDURES: CULTURAL RESOURCES ASSESSMENT - ARCHAEOLOGICAL IMPACT ASSESSMENT (AIA)

1.1 SCOPE

Impact assessment studies are only required where potential conflicts have been identified between archaeological resources and a proposed development.

At each stage in the project planning process, a particular type of archaeological investigation is undertaken to meet specific project objectives and needs.

The following process will be implemented in the event that an archaeological impact assessment is required on TS Lands.

The archaeological assessment process itself is comprised of two principal components:

- **Assessment and**
- **Impact Management**

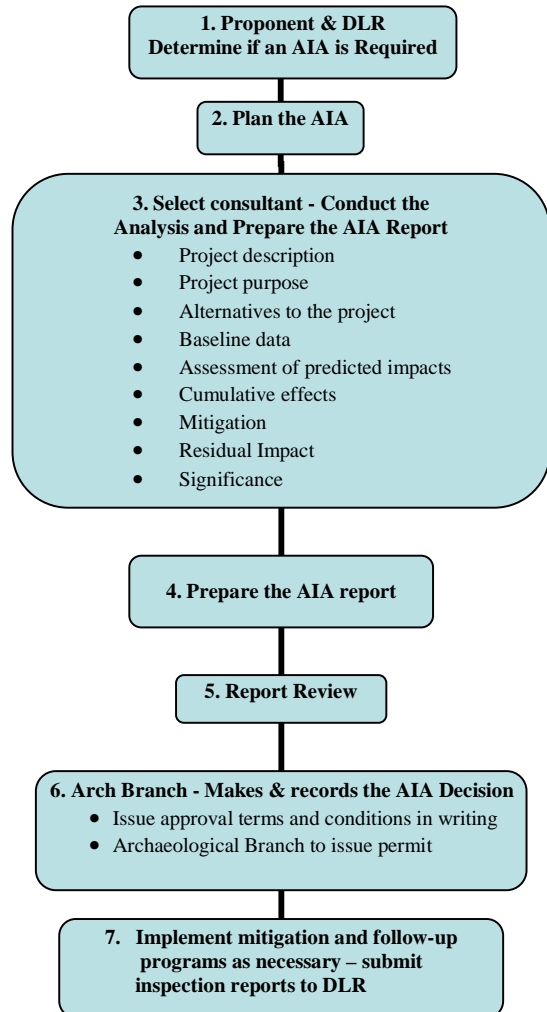
1.2 DETAILED PROCESS PROCEDURES

STEP 1 Determine if an AIA is Required

Archaeological impact assessments are initiated in response to proposed development projects that will disturb or alter the landscape, thereby potentially endangering archaeological sites. The identification of an AIA will most likely occur during the first phases of the Environmental Impact Assessment (EIA). The Director of Lands and Resources must ensure this step is carried out prior to issuing a permit or license. It is the developer's responsibility to get this work done.

STEP 2 Plan the AIA

The Provincial Archaeological Branch will determine how the AIA will be conducted, the scope of both the project and who will be involved.



EMP – Program Cultural Resources Protection	Created by: EMP Technical Planning Team 31/03/2011	Date Modified: N/A
SOP – 7.01 – Cultural Resources Assessment	Approved: By UT Executive March 31, 2011	Page 1 of 2

STEP 3 Conduct the Analysis and gather and assemble data for the AIA Report

Participants in the AIA process proponents and archaeological consultants who represent them are responsible for:

- (a) Complying with all orders and permits issued under the Heritage Conservation Act;
- (b) Implementing assessment and impact management studies; and
- (c) Reporting the results and recommendations of archaeological impact studies to the Branch for review.

Consultants should be concerned with designing research strategies, conducting AIAs and management studies, and recommending courses of action. The responsibility for final decisions concerning the management of archaeological resources is vested with the Archaeological Branch of British Columbia.

STEP 4 Prepare the AIA Report

It will be the responsibility of the consultant to prepare a comprehensive report, to the standards agreed upon by all parties involved.

STEP 5 Review the Report

The Archaeological Branch is responsible for reviewing reports and research proposals for relevance, completeness and objectivity; as well as establishing terms and conditions for project approval. The Archaeological Branch will also monitor field aspects of the AIA and management studies for compliance with terms and conditions of "orders" and "permits". It will be the responsibility of the UT DLR to review the report(s) for adequacy and accuracy and make a copy available to TS Lands occupants.

STEP 6 Make Environmental Assessment Decision

Based on the findings of the report and the comments from the UT, the Archaeological Branch will make the decision whether adverse effects to cultural heritage resources are likely to be significant. This decision is taken into account when determining whether the proposed project should proceed.

STEP 7 Implement Mitigation and follow-up Programs

If the project goes ahead, the mitigation measures identified in the report must be incorporated into the design plans and implemented with the project. Where required or appropriate, a follow-up program will also be designed and implemented to verify that the environmental assessment was accurate and the recommended mitigation measures were implemented and effective. A copy of the final closure report is to be submitted to the UT Director of Lands and Resources.

EMP – Program Cultural Resources Protection	Created by: EMP Technical Planning Team 31-03-2011	Date Modified: N/A
SOP – 7.01 – Cultural Resources Assessment	Approved: By UT Executive March 31, 2011	Page 2 of 2

ENVIRONMENTAL STANDARD OPERATING PROCEDURE

SOP 7.02 - Discovering and Reporting an Unregistered Archaeological Sites and or Unpermitted Disturbance of an Archaeological Site

Scope

This Standard Operating Procedure applies to all UT Citizens, License/Permit holders and or contractors conducting activities on UT Lands.

Introduction

Remnants of British Columbia's earliest cultures are represented in today's landscape by a wide variety of site types, most of which are related to art, habitations, resource gathering and production, tool making, and traditional ceremonial or ritual activities. Some sites that may be visible to a non-archaeologist include:

- Rock art, including pictographs and petro glyphs.
- Surface features such as depressions created by former habitations, earthen fortifications, rock cairns, fish traps and clam gardens.
- Artefacts that have become visible on the land surface owing to erosion or recent land altering activity. These may be produced in a variety of materials such as stone, bone, antler, wood, or shell.
- Buried cultural remains that may be sighted in a cut-bank, excavation, eroded shoreline, or other exposed deposit.

What to do if you think you have discovered an unregistered archaeological site and or observe an unpermitted disturbance of a site?

Discovery of an Unregistered Site

- Please do not disturb any archaeological remains that you may encounter.
- It is very important that you report your discovery.
- In your report Record the geographic location and if possible, the GPS latitude & Longitude, date, a brief description of what was found and name of the person reporting the find and contact phone #.
- Report your discovery to the BC Archaeology Branch at (250) 953-3334 and the UT Director of Lands Public Works and Resources (DLPR) for official follow-up on what you have found.

Observing Site Disturbance/Damage (accidental or unpermitted)

- If an archaeological site is accidentally damaged, the project supervisor must halt operations in the area and contact the manager of the Arch Branch Permitting and Assessment Section for further direction. Accidental damage is addressed through emergency impact management.
- Unpermitted damage to archaeological sites may occur despite following the outlined archaeological resource management process.
- Unpermitted damage includes any damage to a protected archaeological site that is outside the scope of the site alteration permit, unanticipated damage to a site referenced in the permit.
- When operations have inadvertently uncovered protected archaeological sites, one of more of the following emergency actions may be required:
 - completion of an impact assessment by a Professional Archaeologist as directed by Arch Branch
 - site avoidance as prescribed by the Arch Branch
 - site protection measures prescribed by a Professional Archaeologist as directed by Arch Branch
 - salvage excavation as permitted and directed by the Arch Branch
- Observation of damage to an unrecorded or a protected site is to be reported immediately to the Arch Branch (250) 953-3334 and the UT DLR. Include the geographic location (GPS latitude & longitude) a description of disturbance, date, as well as the names of the persons involved.

EMP – Program Cultural Resources Protection	Created by: EMP Technical Planning Team 31-03-2011	Date Modified: N/A
SOP – 7.02 – Discovering & Reporting – unregistered sites	Approved: By UT Executive March 31, 2011	Page 1 of 1

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UT - ENVIRONMENTAL STANDARD OPERATING PROCEDURE

SOP 8.01 Environmental Impact Assessment (EIA) Process

ENVIRONMENTAL ASSESSMENT PROCESS

The UT Director of Lands and Resources will ensure that prior to issuance of a development permit or license for proposed projects on UT Lands, the developers follow the Environmental Impact Assessment (EIA) process steps outlined in this SOP to determine if an EIA is triggered and the criteria for completion of an EIA is followed.

STEP 1 Determine if an Environmental Assessment Is Required

Depending upon the nature of the project, the Provincial or Federal CEAA authorities and or the UT DLR may determine that an EIA is required and who should be involved. They may also determine that an Archaeological Impact Assessment (AIA) is required. If an AIA is necessary, the following SOP must be followed: **UT Cultural Resource Protection SOP 6.2**

STEP 2 Plan the Environmental Assessment

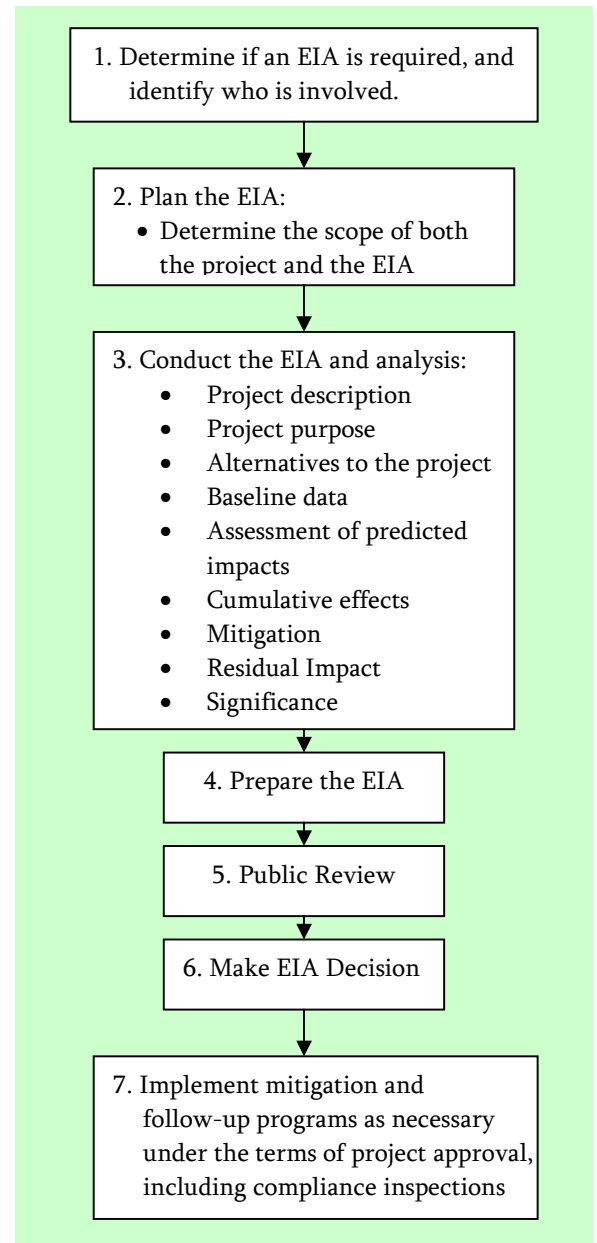
The Responsible Authority will determine how the EIA will be conducted, and who will carry it out.

Screening:

A screening must address the following:

- the environmental effects of the project including cumulative effects, and
- the effects of possible accidents or malfunctions;
- the significance of the environmental effects;
- technically and economically feasible measures that would reduce or eliminate any significant adverse environmental effects of the project;
- any other matters that the DLR determines is necessary for an accurate assessment of the environmental and cultural effects of the project, public comments, if any.

Screenings will vary in time, length and depth of analysis, depending on the circumstances of the proposed project, the existing environment, and the likely environmental and/or cultural heritage resources affected. Some screenings may require only a brief analysis of the available information and a brief report; others may need new background studies and will be more thorough and rigorous.



EMP –UT Plan for Conducting Environmental Assessments	Created by: EMP Technical Planning Team 31-03-2011	Date Modified: N/A
SOP: 8.01 – Environmental Impact Assessment (EIA) Process	Approved: By UT Executive 31-03-11	Page 1 of 3

STEP 3 Conduct the Analysis and Prepare the Environmental Assessment Report

One or more qualified environmental assessment practitioners will identify the potential environmental effects and measures to mitigate those effects. The findings are to be presented in a written report.

STEP 4 Prepare the Report

It will be the responsibility of the qualified individual(s) carrying out the EIA to prepare a report to the standards agreed upon in Step 2 of the process.

STEP 5 Public Review

It will be the responsibility of the Responsible Authority (CEAA or Province) to review the report(s) for adequacy and accuracy and seek comment and input from the UT DLR and TS Land occupants. There will be instances where the Responsible Authority will review the report and then have other agencies review it as well prior to making and decision.

STEP 6 Make the Environmental Assessment Decision

Based on the findings of the report the Responsible Authority makes the decision whether adverse environmental effects are likely to be significant and mitigation required. This decision is taken into account when determining whether the proposed project should proceed.

STEP 7 Implement Mitigation and follow-up Programs

If the project goes ahead, the mitigation measures identified in the report as approved by the Responsible Authority (and/or the Archaeological Branch) are to be incorporated into the design plans and implemented with the project. Where required or appropriate, a follow up program will also be designed and implemented to verify that the environmental assessment was accurate and the recommended mitigation measures were effective. Inspection and compliance reports completed by the supervising professional are to be forwarded to the UT DLR who will review the reports and retain copies on file and prepare summary report(s) for the UT executive as required.

EMP –UT Plan for Conducting Environmental Assessments	Created by: EMP Technical Planning Team 31-03-2011	Date Modified: N/A
SOP: 8.01 – Environmental Impact Assessment (EIA) Process	Approved: By UT Executive 31-03-2011	Page 2 of 3

Development Project Screening - Environmental Impact Assessment Triggers

Provincial - B.C. EAA (2004)

Projects become reviewable through the BCEAA process when:

- A project meets the definition of the Reviewable Projects Regulation (RPR) (2002) under the B.C. EMA (2004), which provides for a broad range of major projects to be automatically reviewable if they equal or exceed relevant measurable thresholds, such as area, production volume, etc. These thresholds are set out in the regulation. Most major projects become reviewable based on this regulation, and projects triggering these thresholds are generally those with a higher potential for environmental impacts.
- The B.C. Minister of Environment issues a ministerial designation, applicable for projects that are not automatically reviewable under the RPR. The Minister can issue such a designation if:
 - the Minister believes the project may have a significant adverse environmental, economic, social, heritage or health effect, and that the designation is in the public interest; and
 - if the project has not been substantially started at the time of designation.
- The proponent's "Opt In" option is exercised and occurs in cases where projects are not automatically reviewable, but a proponent sees advantages in a formal environmental assessment review, such as a "one window" contact point with government or the ability to demonstrate the sustainability of their project.

Reference: *Environmental Assessment Office 2009 User Guide* (EAO 2009) available on line at: http://www.eao.gov.bc.ca/pdf/EAO_User_Guide.pdf

Federal Legislation - Canadian Environmental Assessment Act (CEAA)

The CEAA process applies to all lands and is triggered when a Federal agency:

- Proposes a project,
- Provides financial assistance to the proponent for the project,
- Sells, leases or otherwise transfers control of Federal lands for the purposes of a project,
- Provides a license, permit or approval that is listed in the Law List Regulations (Canada Gazette, 2007) that enables a project to be carried out.
- Under extenuating circumstances and after petition from a member or group of interested parties from the public, the Federal Minister of Environment may order an EIA on a particular project.

Reference: *Manual on the Canadian Environmental Assessment Act (CEAA): The Canada Fund and Mission-administered Funds* – available on line

[http://www.acdicida.gc.ca/INET/IMAGES.NSF/vLUIImages/ea/\\$file/CLFI&CEAA-E.pdf](http://www.acdicida.gc.ca/INET/IMAGES.NSF/vLUIImages/ea/$file/CLFI&CEAA-E.pdf)

Uchucklesaht Tribe (UT Land Act Sec 4.1 & Environmental Protection Act Sec 6.0)

- In the event that an EIA is not triggered under the Provincial or Federal EIA process, the UT Director of Lands and Resources may require, under authority of the **UT Land Act (2011)** Sec. 4.1 (a) (ii), or **UT Environmental Protection Act (2011)** Section 6, an EIA is conducted by the project developer to address concerns that the UT may have.

EMP –UT Plan for Conducting Environmental Assessments	Created by: EMP Technical Planning Team 31-03-2011	Date Modified: N/A
SOP: 8.01 Environmental Impact Assessment (EIA) Process	Approved: By UT Executive 31-03-2011	Page 3 of 3

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