

Procedures for fuel storage, transfer and transport

Fuel spills in Antarctica can cause long-lasting environmental damage. The physical conditions in Antarctica retard the decomposition of the fuel products, and clean-up efforts are made difficult by the conditions as well.

The best strategy is to prevent spills from happening in the first place. This means that any person handling fuel in Antarctica has a certain responsibility to ensure that spills do not occur. All expedition members should therefore be aware of the guidelines outlined below and act accordingly.

1. Fuel Storage

- ✓ Fuel must not be stored in the vicinity of environmentally sensitive areas, i.e. vegetated areas, fresh water, bird colonies, etc.
- ✓ Store all containers, drums, etc. in such a way that any drips, leaks and spills will not enter into the environment. An accumulation of such minor releases can easily add up to unnecessary contamination.
- ✓ Fuel shall only be stored in containers specifically designed for the products being stored, and suitable for the prevailing climatic conditions.
- ✓ Containers must not leak, and must be sealed with a proper fitting lid or cap.
- ✓ Keep lids, valves, etc. tightly closed except during transfer of fuel.

2. Transport of fuel

- ✓ During transport all drums must be transported upright and properly secured to the vehicle to prevent shifting or swaying in any manner. All drums should be tied down with adjustable straps to restrict any shifting of the load.
- ✓ Containers of 20 liters or less should be stored in leak proof storage box during transport. This will keep the containers from bouncing out of the vehicle and will contain any spillage that may occur from small leaks.
- ✓ Maintain appropriate spill handling equipment with the transport vehicle. If leaks and spills are noticed, these should be stopped and contained immediately. Fuel from leaky or damaged containers should be transferred to undamaged containers or to a safety drum.

3. Handling & Transfer of fuel

- ✓ Re-fuelling should as far as possible occur sheltered from the wind.
- ✓ During fuel transfer absorbent material should always be available. Fuel spills and leaks shall be removed with the aid of absorbents and disposed of in an approved manner.

- ✓ During fuel transfer operations absorbent mats should as far as practicable be used to avoid accidental spills to the ground.
- ✓ All spills and leaks must immediately be contained, cleaned and disposed of in an approved manner according to procedures described in the Oil Spill Contingency Plan (OSCP).
- ✓ Ensure that all spills are to be reported according to the procedures described in OSCP. Spills larger than 200 liters are to be reported to expedition leader immediately.
- ✓ All sources of ignition must be eliminated or removed while refueling.

4. Maintenance & Inspection

- ✓ Fuel containers should be superficially (visually) checked for leaks and spills by any person having errands in the fuel storage area.
- ✓ All fuel storage drums are to be thoroughly inspected on a weekly basis, and as soon as possible following adverse weather. The storage drums and storage area should be checked for leaks, spills, deformed drums, etc. Any leakage shall be repaired as quickly as possible.

