



# **BULK-FUEL MANAGEMENT FACILITY MONITORING PLAN: STANDARD OPERATING PROCEDURE (SOP)**

**Inspection of Sleigh-Mounted Mobile Fuel Tank Prior to Deployment <sup>1</sup>**

PEREGRINE DIAMONDS SAFE WORKING PROCEDURES			
Division:	Mobile Fuel Management		
Section:			
Subject:	Procedure: Inspection of Sleigh-Mounted Mobile Fuel Tank prior to Deployment via Mobile Fuel-Carrying Equipment		
Owner:	<b>Corporate EHS Manager</b>	Effective Date:	<b>May 2012</b>
Revision:		Replaces:	

## 1 OBJECTIVE

- 1.01 To ensure that Operators of mobile fuel-carrying equipment, principally the Challenger 875C and backup Morooka MST 3000 used for conveying sleigh-mounted fuel tanks, put the Peregrine Bulk-Fuel Management Facility Monitoring Plan and Spill Contingency Plan into practice by inspecting the sleigh-mounted mobile Fuel Enviro-Tank prior to each trip, thereby preventing or minimising environmental impact.

## 2 SCOPE

- 2.01 This procedure applies to all Operators of mobile equipment carrying a sleigh-mounted Fuel Enviro-Tank, and secondarily to the Fuel Specialist and Fuel Specialist Assistant, who will cross-check equipment departing the Designated Fuel Station.

## 3 INTRODUCTION

- 3.01 Prior to departing the Designated Fuel Station for travel on Chidliak Project winter trails to support drilling and other related activities, each Operator intending to convey a sleigh-mounted Fuel Enviro-Tank must conduct a thorough check of the **Fuel Sleigh** and **Fuel Enviro-Tank** and a walkaround of these components. Activity purpose: To determine that the sleigh-mounted Fuel Enviro-Tank is safe and environmentally acceptable for departure, or to correct deficiencies prior to departure and, additionally, to record inspection results and corrective actions on a **Fuel Sleigh and Fuel Enviro-Tank Checklist**.
- 3.02 The **Fuel Sleigh and Fuel Enviro-Tank Checklist** will be filled out and signed by the Operator, and signed off by the Fuel Specialist or Fuel Specialist Assistant before the fuel-carrying mobile equipment leaves the Designated Fuel Station. Should any new deficiency(ies) be noted in transit, the Operator will notify the Fuel Specialist or Fuel Specialist Assistant by radio (if at short range) or by sat-phone (if at long range), noting the deficiency and immediate actions taken, if any, and requesting these personnel to address any deficiency(ies) requiring further action upon the equipment's return to the Designated Fuel Station. During this call-in, the Fuel Specialist or Fuel Specialist Assistant will provide the Operator with any required instructions.
- 3.03 Addressing deficiency(ies) may necessitate that the Fuel Specialist or Fuel Specialist Assistant involve other personnel on site, such as a Mechanic, Welder, another Equipment Operator or the Operations Manager (if a part, such a trailer hitch or other item, must be ordered).

## 4 RESPONSIBILITY

- 4.01 The **Project Manager** is responsible for:
- Ensuring this procedure is implemented and maintained.

- 4.02 The **Fuel Specialist** or **Fuel Specialist Assistant** is responsible for:
- Reviewing and signing off on the **Fuel Sleigh and Fuel Enviro-Tank Checklist**, keeping in touch with the Operator in transit, ensuring documentation of any scheduled and completed repairs and keeping the records.
- 4.03 The **Operator** is responsible for:
- Conducting a thorough check of the **Fuel Sleigh** and **Fuel Enviro-Tank** and a walkaround of these components, ensuring correction of deficiency(ies) prior to departure of fuel-carrying equipment, and completing and signing the **Fuel Sleigh and Fuel Enviro-Tank Checklist**.
- 4.04 The **Operators' Supervisor** is responsible for:
- Ensuring that the Operators understand and are trained in this procedure, and have been trained in operation of the vehicles and fuel-carrying equipment named herein, transport of dangerous goods, spill response and use of response equipment carried by the vehicle, as well as all other related procedures under the Bulk Fuel Management Facility Monitoring Plan and Spill Contingency Plan.
- 4.05 The **Environment Manager** is responsible for:
- Monitoring the implementation of this procedure and compliance.

## 5 DEFINITIONS

- 5.01 **Designated Fuel Station:** Designated area at Discovery Camp for fuel transfer and equipment refuelling (*cf. Drawings 1a, 1b in the Bulk-Fuel Management Facility Monitoring Plan*), and under the control of the Fuel Specialist. The mobile fuel-carrying equipment, including the sleigh-mounted **Fuel Enviro-Tank** will depart from and return to the Station, after the **Fuel Sleigh and Fuel Enviro-Tank Checklist** has been signed off by the Fuel Specialist or Fuel Specialist Assistant.
- 5.02 **Fuel Specialist:** An experienced and competent worker who has been trained in the proper fuel-handling procedure and is responsible for signing off on the Operator's **Fuel Sleigh and Fuel Enviro-Tank Checklist**.
- 5.03 **Fuel Sleigh and Fuel Enviro-Tank Checklist:** A daily checklist that the Operator signs during inspection and walkaround of the Fuel Sleigh and Fuel Enviro-Tank mounted on it.
- 5.04 **Fuel-Carrying Equipment:** For the purposes of the Chidliak bulk-sampling programme, the equipment is primarily the Challenger 875C (for hauling bulk fuel in an enviro-tank mounted on a sleigh) and secondarily the Morooka MST 3000 (backup equipment for the Challenger).
- 5.05 **Fuel Sleigh:** Steel sleigh for conveying the Fuel Enviro-Tank to field locations, such as the reverse circulation drill collecting the bulk sample. The sleigh is pulled by a Challenger tractor. (*See photos at end of procedure*).
- 5.06 **Fuel Enviro-Tank:** Double-walled steel tank (capacity of 15 000L for bulk sample programme) used to contain diesel fuel that is transferred to equipment and the reverse-circulation drill; it is carried in the Fuel Sleigh. (*See photo at end of procedure*). Fuel flown to site in 205L drums will be transferred to one of two enviro-tanks at the Designated Fuel Station. The Fuel Enviro-Tank is mounted on the fuel sleigh and contains a deck with: a fuel dispenser, hose and spool, a built-in drip tray covered by a grate, a ladder, as well as a fire extinguisher. A spill-kit drum and other response equipment, as noted in the Spill Plan's "Response Inventory Procedure for Mobile Fuel-Carrying Equipment" also will be on board for all trips.

## 6 REFERENCES AND RELATED DOCUMENTS

- 6.01 NWT and NU Mine Health and Safety Act and Regulations (2008).
- 6.02 AANDC (formerly INAC) Class A Land-Use Permit #N2008C0005 [Chidliak land-use permit and amendments].
- 6.03 NWB Type B Water Licence #2BE-CHI0813 [Chidliak water licence and amendments].
- 6.04 Chidliak/Qilaq/Cumberland Spill Contingency Plan, Version 10, Peregrine Diamonds Ltd.
- 6.05 Environmental Guideline for the General Management of Hazardous Waste – Nunavut Government Department of Environment (April 2010)
- 6.06 Indian and Northern Affairs Canada-Nunavut Fuel Storage and Handling Guidelines – Draft (April 2008)
- 6.07 Nunavut Environmental Protection Act
- 6.08 Transportation of Dangerous Goods Act, 1992 [version of 24 January 2012, or latest version]
- 6.09 Transportation of Dangerous Goods Regulations, including Amendments SOR/2011-210 and -239 [version of 20 December 2011, or latest version]
- 6.10 Chidliak Bulk-Fuel Management Facility Monitoring Plan, Revision 1, Peregrine Diamonds Ltd.

## 7 PREPARATION

- **TOOLS:** Work gloves, rubber gloves (lined for winter), safety goggles, reflective vest, steel-toed boots, hard hat ((if in an area where a hard hat should be worn), GPS, sat-phone for long-range communication in transit, two-way radio for short-range communication (near an operating camp), digital camera for documenting photos (of deficiencies or repairs, or if a spill event occurs).
- **HAZARDS:** Since the enviro-tank is double walled, serious damage to this welded-steel container is highly unlikely, but minor drips of fuel could conceivably collect on the sleigh; spill matting on board would be adequate for this purpose. Main hazard would be leakage of fuel from dispenser nozzle if not shut OFF or from a loose cap or fitting. These areas would be checked via the **Fuel Sleigh and Fuel Enviro-Tank Checklist** BEFORE the **Fuel-Carrying Equipment** departs the Designated Fuel Station.
- **REQUIREMENTS:** Ensure that the Operator, Fuel Specialist and Fuel Specialist Assistant, as well as the Operators' Supervisor, are aware of and trained in this procedure, and trained in the handling and storage of hazardous goods associated with mineral exploration programmes.

## 8 PROCEDURE

### 8.01 General

- Purpose of procedure: To ensure **Fuel Sleigh** and **Fuel Enviro-Tank** mounted on it are carefully checked during a walkaround, and double-checked by the Fuel Specialist and Fuel Specialist Assistant, before the **Fuel-Carrying Equipment** departs the Designated Fuel Station and the camp compound (*cf. Drawings 1a and 1b, Bulk-Fuel Management Facility Monitoring Plan*).

Winter-Spring 2012, 2013

**PEREGRINE DIAMONDS LTD.**  
**Fuel Sleigh and Fuel Enviro-Tank Checklist**  
**DESIGNATED FUEL STATION, DISCOVERY CAMP**

**NOTE: FILL IN 1 LOG SHEET PER TRIP PER VEHICLE**

\* Visible leaks from welds, caps and fittings *MUST* be corrected, signed as corrected and signed off by Fuel Specialist *BEFORE* Operator may depart from Designated Fuel Station. \*\* If built-in drip tray contains fuel, pump out into refuge container *BEFORE* departing.

CHECKLIST ITEM	✓ or X or N/A	IF "X", CORRECT BEFORE TRIP -- OR NO SIGNOFF by Fuel Specialist	DATE DD/MM/YY	TIME AM, PM or 24-hr Clock	OPERATOR SIGNATURE	FUEL SPECIALIST OR FUEL SPECIALIST ASSISTANT INITIALS
Condition of Fuel Sleigh						
Condition of Fuel Sleigh Hitch						
Condition of Sled Skis						
Condition of Fuel Enviro-Tank						
Visible Leaks? *						
Condition of Tank Fittings						
Condition of Tank Mounting						
Condition of Deck:						
(1) Fuel Dispenser and Nozzle						
(2) Hose and Spool						
(3) Capacity in Built-in Drip Tray **						
(4) Ladder and/or Miscellaneous						
Additional Items						
Additional Comments						

"N/A" is an acceptable entry for "Additional Items" OR "Additional Comments" if there are no Additional Items or Additional Comments.

File: CHECKLIST-Copy for Chidliak Fuel Sleigh and Tank Check SOP-v1

## 8 PROCEDURE

### 8.01 General

- Typical scenario at the start of a shift might be for the **Fuel-Carrying Equipment** to proceed from the storage shed to the Designated Fuel Station, where one of the two sleigh-mounted, double-walled enviro-tanks will be hitched to the **Fuel-Carrying Equipment** and filled within the Fuel Transfer Berm. During the fuel transfer, or whilst the **Fuel-Carrying Equipment** still is within the Designated Fuel Station, the Operator will inspect the **Fuel Sleigh** and **Fuel Enviro-Tank** by walking around it. During or immediately after the walkaround, the Operator must fill out the **Fuel Sleigh and Fuel Enviro-Tank Checklist** and sign it if the Checklist Items are given a “check” mark or an “N/A” (not applicable). The Fuel Specialist or the Fuel Specialist Assistant will then review the Checklist against the equipment intended for departure and initial the Checklist. The Checklist is then complete, and the vehicle may start its trip along the winter trail.
- If the Operator places an “X” by any Checklist Item, the vehicle is not ready to leave. The Fuel Specialist or Fuel Specialist Assistant will assist the Operator in correcting any deficiency(ies) or arranging for any repairs, after which the Operator will sign the Checklist and the Fuel Specialist or the Fuel Specialist Assistant will initial the Checklist to indicate that the **Fuel Sleigh** and **Fuel Enviro-Tank** are safe and environmentally acceptable for departure.
- Minor or non-urgent maintenance items which need not be immediately corrected prior to departure – e.g., a notation to order spares or shovel slush from deck on next trip – are to be noted in the Checklist sections “Additional Items” or “Additional Comments”.
- Should a spill or leak occur in transit, the “Enviro-Tank Fuel Procedure” (under the Bulk-Fuel Management Facility Monitoring Plan) and the “Response Inventory Procedure for Mobile Fuel-Carrying Equipment” (under the Spill Contingency Plan) would be activated. Standard spill cleanup would occur and the Operator would radio in or phone in the occurrence to the Supervisor, taking co-ordinates of the spill location and making a documenting photo, if possible. The Supervisor to whom the information was relayed would then complete an internal report. According to Peregrine’s policy, any hydrocarbon spill of 50L or more is reported to the NWT-NU Spill Line, and any spill on a waterbody (frozen during the period of use of the winter trail) or adjacent to a waterbody also would be reported to the Spill Line.
- Upon return to the Designated Fuel Station after a spill event, the Operator would debrief the Supervisor on the incident event, its location and cleanup completed. Used spill pads and other cleanup waste will be turned over to the Fuel Specialist or Fuel Specialist Assistant for proper allocation to marked hazardous waste containers as required under Transport of Dangerous Goods legislation.
- **Fuel Sleigh and Fuel Enviro-Tank Checklist** records (as stated on Page 2) are retained by the Fuel Specialist.

## 9 ATTACHMENTS



**Top: Sleigh-Mounted Fuel Enviro-Tanks. Above: Rear view with Fuel Dispenser, Hose, Built-in Drip Tray, Ladder**



**CAT Challenger to pull sleighs**



**Morooka will be a backup vehicle to pull sleighs**

**10      APPROVED RECORD**

NAME	POSITION	DATE	REV #	NOTES