# NUNAMI HELICOPTER TRANSPORT CORPORATION & AGNICO-EAGLE MINES LTD.

# RANKIN INLET, NU

# FUEL TRANSFER (revised July 14)

Reference #: NHTC-014

Helicopter: Sikorsky S61N C-GHTN

Operation: Commences July 25, 2011

Hours of Operation: 08:00AM to 6:00PM

# RECEIVED

By Manager of Licensing at 10:10 am, Jul 14, 2011



#### **Purpose**

<u>Aerial Transfer 150,000 litres of Jet A fuel & 1,000,000 litres of Arctic Diesel Fuel</u> <u>From Rankin Inlet to Meliadine Camp.</u>

This document establishes operating criteria to ensure that fuel transfers between M & T fuel trucks to Nunami Helicopter Transport Corporation helicopter and to Meliadine Camp is conducted in conjunction with Agnico-Eagle Mines Ltd., operations north of the Hamlet of Rankin Inlet and fully complies with safety regulations requirements, including the use of fuel spill kits engaged in fuel transfer operations.

As fuel transfer operations present an elevated risk of fuel spills and potential environmental damage, it is imperative that transfer operations are conducted safely and that adequate response equipment is in place to provide for containment and recovery of any spilled fuel.

## **Mission Profile**

Utilize one Sikorsky S61N helicopter to transfer fuel by external load longline from a predetermined/approved staging area located ½ mile southwest of the Rankin Inlet Airport to Agnico-Eagle Meliadine Camp location at N 63°01'48" W92° 10' 12".

Distance to transport fuel by helicopter is 16 N Miles, heading 002° overland to Meliadine Camp.

Fuel shall be delivered to staging area by two M & T fuel delivery trucks, carrying capacity is 12,500 litres each. From the two trucks, fuel shall be transferred by trained Agnico-Eagle Ltd. personnel to the five (5) "Fuel Easy" approved transport containers, ready for helicopter pickup and delivery to Meliadine camp.

Upon arrival at the Meliadine Camp fuel farm, Agnico-Eagle personnel shall transfer the fuel from the Fuel Easy containers to the camp fuel reservoirs.

Distance of delivery by the trucks from the tank farm to staging area is approximately two (2) miles.

Fuel shall be transported by helicopter externally by sling load in approved "Fuel Easy" fuel transport systems, as shown below.

Five (5) Fuel Easy systems shall be deployed on this mission.

Each unit has the capacity to carry 4320 litres of fuel.



**Fuel Easy Features** 

Field-tested in the toughest conditions around the world, from freezing conditions in the Arctic to the arid deserts of Africa, the Fuel-Easy is an essential tool for remote helicopter operations. It offers many advantages including:

- Aerodynamic design allows the Fuel-Easy to be flown at a helicopter's maximum cruise speed while remaining predictable and stable in flight.
- Increased fuel savings compared to using a fuel drum
- Simple filling and emptying with less waste due to drybrake fittings for bottom-filling and bottom emptying
- No vapor space no condensation no fuel contamination
- No transfer between drums reduces risk of spills
- Versatile ideal for use in any climate including extreme temperatures.
- Pliable and puncture resistant material.
- User-friendly easy 5-minute setup, lightweight design

#### Construction

The Fuel-Easy is built to endure, providing a superior service life. Its construction includes:

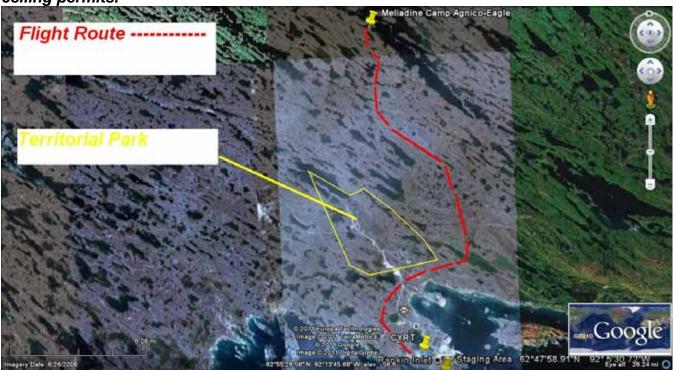
- Fuel bladder high strength urethane coated nylon
- Frame high strength aluminum, bronze or steel
- Leg uprights/diagonal braces/stretchers aluminum or steel pipes
- Connector and bottom plates cast aluminum or manganese bronze
- Brace brackets cast aluminum or manganese bronze
- Hoop specially formed square aluminum or steel tube
- Detachable components fixed in place with quick pins
- Non-detachable components bolted with aircraft bolts and nylock nuts
- Repairs dry repair kit (for use in the field)
- Specialty bladders also available for potable water and for a variety of chemicals

Approximately 288 trips are required to complete this transfer. Estimated delivery time from staging area to Meliadine tank farm is approximately 12 minutes.

## S61N C-GHTN Route of Flight

#	Latitude	Longitude
1	N 62° 47' 59"	W 92° 05' 31" Staging Pad
2	N 62° 49' 19"	W 92° 10' 12"
3	N 62° 50' 28"	W 92° 11' 19"
4	N 62° 51' 36"	W 92° 08' 36"
5	N 62° 52' 38"	W 92° 02' 55"
6	N 62° 56' 22"	W 92° 04' 46"
7	N 63° 01' 43"	W 92° 10' 16" Meliadine Camp

Route of Flight – Overland – Route to be flown at 1000 feet Above Ground or as high as ceiling permits.









Staging area, located ½ mile southwest of Rankin Inlet Airport Runway 31





Staging Area as shown above, shall serve as the site for fuel transfer from the two M & T Enterprises' trucks filling the Fuel Easy systems which shall be conducted by Agnico-Eagle qualified /trained personnel. This same location shall be utilized by the helicopter for a landing site during the fuel transfer operation.

Nunami Helicopters shall provide one Sikorsky S61 aircraft crewed by two pilots and one fueling technician for refueling aircraft at staging area #1.

Flights depart from within the Rankin Inlet Airport (CYRT) Control Zone and therefore shall be coordinated with CYRT Radio on frequency 122.2

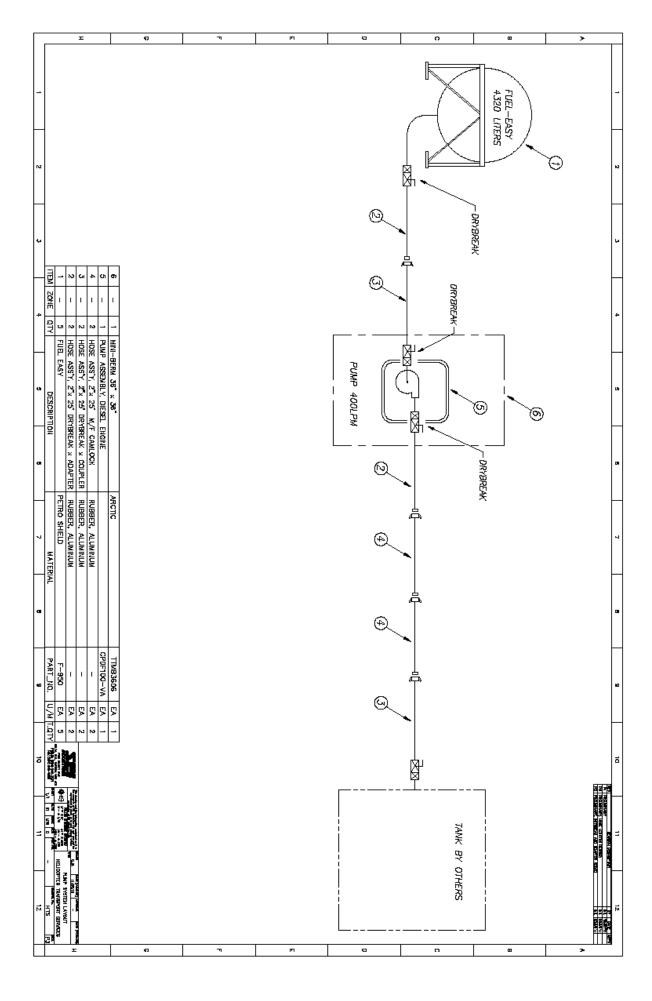
Hours of operations shall be between 08:00 to 18:00 hours.

Arrangements shall be coordinated with CYRT Radio and Standard Operating Procedures shall be discussed and implemented to ensure a safe coordination between other airport activities.

De-Fueling of the Fuel Easy systems, shall be conducted by Agnico-Eagle qualified /trained personnel.

Meliadine Arctic Diesel Fuel Farm







M & T Fuel Truck Drybrake Connector



2<sup>nd</sup> M & T Fuel Truck Connector



#3 M & T Fuel Truck Connector

Jet A Tank CAMLOCK FITTING at Meliadine Location

Meliadine Jet A Fuel Tanks



Meliadine Jet A Fuel Tanks



Meliadine Jet A Fuel Tanks



Meliadine Jet A Fuel Tanks



Meliadine Arctic Diesel Tank Farm - Connectors



In the unlikely event of a fuel spill, the contaminated area shall be excavated and disposed of in an approved process coordinated with M & T Enterprises. If required, a small excavator shall be slung to the contaminated site for excavation purposes.

Any contaminated soil will be collected and held for proper disposal.

#### Contacts:

# **Nunami Helicopter Transport Corporation**

Murray Cheslock Office 613-839-5868 ext 228 Cell 613-298-1428 Email operations@htsc.ca

# **Agnico-Eagle Mining Limited**

Rankin Inlet Office Eric Lamontagne Project Manager Office 867-645-2920 Email Eric.M.Lamontagne@agnico-eagle.com

# **Agnico-Eagle Mining Limited**

Meliadine Camp Office 867-645-3308

# M & T Enterprises

Rankin Inlet Office Hamish Tatty 867-645-3150

# **Rankin Inlet Fire Department**

867-645-2525

#### **RCMP**

867-645-1111 Rankin Inlet Office

## **Rankin Inlet Airport Manager**

Jason Todd 867-645-2773

#### Nanuq Lodge (5 rooms)

John Hickes Bill 867-645-2650 nanuq@qiniq.com

# **Sikorsky Fuel Consumption**

288 trips (one way) at 70 knots = 0.23 hrs = 14 minutes

288 X 14 X 2 = 8,064 mins @ 70 knots

8,064÷60=134.4 hours flying

134.4X680 litres per hour = 91,120 litres.