



Environment Canada  
Environnement Canada

28 July 2011

EC file: 4703 001 070  
NWB file: 3BC-HMP0712

Doreen Porter  
Administrative Clerk  
Nunavut Water Board  
P.O. Box 119  
Gjoa Haven, NU X0B 1J0  
E-mail: [clerk@nunavutwaterboard.org](mailto:clerk@nunavutwaterboard.org)

**RE: Mars Institute - HMP-2011 - Spill Contingency Plan**

Environment Canada (EC) has reviewed the information regarding the above mentioned spill contingency plan, as submitted to the Nunavut Water Board (NWB). The following specialist advice has been provided pursuant to Environment Canada's mandated responsibilities under the *Canadian Environmental Protection Act*, and Section 36(3) of the *Fisheries Act*.

The Houghton-Mars Project (HMP) on Devon Island is an ongoing international research project with three main goals:

- A) Space Science: To advance our knowledge of planets (Earth, Moon, Mars, and beyond) through comparative studies & to investigate Life in extreme environments;
- B) Space Exploration: To prepare for future space and planetary exploration with robots and humans, including testing future Mars rovers and supporting astronaut training.
- C) To share with the public the excitement of space science and exploration.

Under Part H, of the current water licence 3BC-HMP0712, the proponent is required to submit a revised Spill Contingency Plan.

Based on the information provided, EC would like to provide the following comments for the NWB's consideration.

**Spill Contingency Plan**

Copies of the spill plan must be made readily available on site and posted where crew members have access to it, and at each fuel cache and refueling station. All staff should be familiar with operational procedures in the event of a spill and be instructed regarding these spill / clean-up procedures. The Spill Contingency Plan should:

- Assign responsibilities to company staff and/or contractors and outline a clear path of response;
- Maintain and update as needed a list and indicate location(s), both on and off site, of equipment available to be used in the event of a spill;
- Ensure that fuel containers, including barrels, should be marked with responsible party's name, product type, and year purchased or filled;
- Ensure an appropriate spill kit including shovels, barrels, absorbents, pumps, etc. be consistently maintained and readily available at all locations where fuel is being stored and transferred;
- Ensure that transfer operations be attended by trained personnel at all times;
- Ensure that there is a secondary containment or surface liners (drip pans, fold-a-tanks, etc.) under all containers or vehicle fuel tank inlet and outlet points, hose connections and hose ends during fuel or hazardous substance transfers. In addition, vehicle refueling should not occur within floodplains and secondary containment should be of adequate size and volume to contain and hold fluids for the purpose of preventing spills;

- Ensure that the secondary containment with an impervious liner, for storage of all barreled fuel should be used rather than relying on natural depressions to contain spills;
- Ensure proper handling and disposal of contaminated materials resulting from the containment, clean-up, etc. of any spills and include the locations of disposal sites approved to accept wastes and means of storage prior to disposal; and
- Spills are to be documented and reported to the NWT/NU 24 hour Spill Line at (867) 920-8130. In the event of a spill, EC will be contacted through the Spill Line.
- EC recommends that all releases of harmful substances, regardless of quantity, are immediately reported where the release:
  - is near or into a water body;
  - is near or into a designated sensitive environment or sensitive wildlife habitat;
  - poses an imminent threat to human health or safety; or,
  - poses an imminent threat to a listed species at risk or its critical habitat.

If there are any additional changes in the proposed project, EC should be notified, as further review may be necessary. Please do not hesitate to contact the undersigned with any questions or comments with regards to the foregoing at (204) 984-3316 or by email at [meghan.thomson2@ec.gc.ca](mailto:meghan.thomson2@ec.gc.ca)

Yours truly,

Meghan Thomson  
Environmental Assessment Intern