



Water Resources Division  
Nunavut Regional Office  
Iqaluit, NU  
X0A 0H0

NWB File #: 3BC-MAR0709  
Our File #: 362128

Oct 15, 2009

Richard Dwyer  
License Administrator  
P.O. Box 119  
Gjoa Haven, NU  
X0A 0H0

**Re: 3BC-MAR0709 – Application to Renew Water License – Mars  
Society's Flashline Mars Arctic Research Station (FMARS) Project.**

Please be advised that Indian and Northern Affairs Canada (INAC) has completed a review of 3BC – MAR0709 Type "B" Water License Renewal Application for the Mars Society's (FMARS) Project. The NWB circulated the application for comments, on Oct 6, 2009. All associated documents related to the license renewal application are posted on the NWB ftp site under 3BC - MAR0709 and were referred to in my review (See attached Technical Review Memorandum).

Should you have any questions or comments, please do not hesitate to contact me at (867) 979-4282 or by email at [Ian.Parsons@inac.gc.ca](mailto:Ian.Parsons@inac.gc.ca).

Sincerely,

*Original signed by*

Ian Parsons  
Water Resources Technician

Cc. Ian Rumbolt, Acting Manager of Water Resources – Indian and Northern Affairs Canada, Nunavut Regional Office



## **Technical Review Memorandum**

To: Richard Dwyer – License Administrator, Nunavut Water Board.  
Peter Kusugak – Field Operations Manager, INAC.  
Robert Zubrin – President, Mars Society Project.

From: Ian Parsons – Water Resources Technician, Indian & Northern Affairs Canada.

**Re: 2BC-MAR0709 – Application for Water License Renewal 2009 – Mars Society’s Flashline Mars Arctic Research Station Project.**

### **Existing Water License # 3BC-MAR0709**

#### **Background**

The Mars Society (Proponent) is applying for a renewal of their existing licence to continue its research operations on Devon Island.

The 2009 Application for Water License Renewal submitted by Mars Society President (Robert Zubrin) for the Mars Society’s (FMARS) Project # 3BC – MAR0709 contained most of the required documentation. However, the following information was not provided in the 2009 Renewal Application.

**Item #8 Waste** of the renewal application requires a description of waste such as composition, quantity (cubic metres per day), methods of treatment and disposal.

The proponent stated in the application that incineration is used for sewage and solid waste and that greywater is disposed of in a sump.

As well, the proponent did not submit any quantities (Cubic metres per day) of ash from the incineration of wastes that were backhauled off site. These quantities should be recorded and included in the renewal application.

When reviewing INAC’s Water Use Inspection Report for 2009, it was noted that a Smart Ash Incinerator was used for the disposal of human wastes and also a proper sump had been installed to deal with greywater. This was not mentioned in the 2009 Renewal Application.

**Item #14** of the renewal application requires the following documents to be included in the application for the regulatory process to begin:



- 1) Supplementary Questionnaire (Where applicable: see section 5)
- 2) Inuktitut and/or Inuinnaqtun/English summary of project
- 3) Application fee of \$30.00
- 4) Water use fee of \$30.00

The Supplementary Questionnaire was not included with the renewal application.

Along with these omissions, there were several items missing from the 2009 Annual Report, this information included:

**Part B Item 2 (i)** of the water license requires a summary report of water use and wastes disposal activities, including photographic records of the camp showing the water supply and waste disposal facilities.

The report did not include any photographic records of the camp, water supply or waste disposal facilities.

**Part B Item 2 (ii)** of the water license requires a list of unauthorized discharges and a summary of follow-up actions.

The report did not include whether there was or wasn't any unauthorized discharges (and the follow-up actions taken). If there were no unauthorized discharges it should be stated in the Annual Report.

**Part B Item 2 (iii)** of the water license requires an up-to-date copy of the Spill Contingency Plan

The report did not include an up-to-date Spill Contingency Plan. When submitting an up-to-date Spill Plan, it should contain all parts as outlined in Part G – Conditions Applying To Spill Contingency Planning of the water license.

**Part B Item 2 (iv)** of the water license requires a description of all progressive and/or final reclamation work undertaken, including photographic records of site conditions before, during and after completion of operations.

The report did not include a description of any progressive or final reclamation work undertaken at site, nor did it include any photographs of site before, during and after completion of operations. If there hasn't been any progressive or reclamation work done it should be stated in the Annual Report.

**Part B Item 2 (v)** requires the results from the monitoring program.

The report did not include results from the monitoring program.



When submitting the results from the monitoring program, it should contain all parts as outlined in **Part I – Conditions Applying To The Monitoring Program** of the water license.

Also, when reviewing INAC's Inspection Report for 2009, it was noted that the records of waste and hazardous wastes hauled off site were to be provided in the 2009 Annual Report. These records were not provided in the Annual Report.

The Nunavut Water Board should advise the Proponent that all required items stated above should be addressed before a water license renewal for the Mars Society's (FMARS) Project is approved.

Should you have any questions or comments, please do not hesitate to contact me at (867) 975-4738 or by email at [Ian.Parsons@inac.gc.ca](mailto:Ian.Parsons@inac.gc.ca)

Sincerely,

*Original signed by*

Ian Parsons  
Water Resources Technician

Cc. Ian Rumbolt, Acting Manager of Water Resources – Indian and Northern  
Affairs Canada, Nunavut Regional Office