



Environment Environnement
Canada Canada
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10 Wellington Street, 4th Floor
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Shelley.Emmerson@ec.gc.ca

Our File Notre référence
A-2008-00620 / pkp

January 5, 2010

Mr. Don Carr
Technical Advisor
Nunavut Water Board
P.O. Box 119
Gjoa Haven, Nunavut
X0B 1J0

Dear Mr. Carr:

We have received a request under the Access to Information Act (the Act) for:

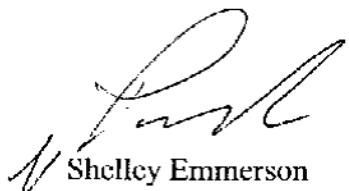
"Information in all electronic and paper format with respect to correspondence, faxes, emails and all attachments, held by employees both working in Ottawa and the regions and any contract employees, with respect to Eureka Weather Station management of water issues, sewage, environmental concerns, contracts and contract awards, and related intergovernmental correspondence from the period of 1 April 2008 to 4 November 2008."

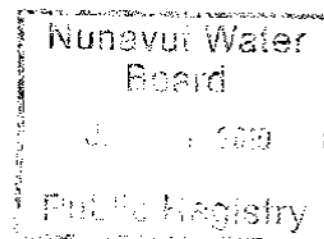
Our records contain the enclosed document which originated from your department. I would appreciate it if you would review the documents and provide me with your comments regarding their disclosure.

If you have any objections to the documentation being made available to the applicant, I would appreciate you notifying me by **January 25, 2010**.

If you have any questions please feel free to contact Patti Page at (819) 934-6846.

Yours sincerely,


Shelley Emmerson
Manager
Access to Information
& Privacy Secretariat



Enclosures: pages 70-78, 119-125, 210-212

Wastewater Disposal

The discharge from the sewage lagoon is within allowable limits for samples taken at the beginning of discharge on the same day. Concerns remain that a single large 'slug' of raw sewage effluent is discharged in a matter of hours. The Board agrees with Environment Canada's proposal to develop a wastewater, water quality and runoff sampling program (cover letter dated April 10, 2000). In order to obtain a more accurate representation of the discharge, EC should consider a decant mechanism which allows for the discharge of effluent over a period of days during the open water season with sampling at the beginning, middle and end of the discharge. Compliance with the effluent discharge limits can then be confirmed. Compliance is defined as per the *Guidelines for the Discharge of Treated Municipal Wastewater in the Northwest Territories* (1992) Section 4.3. Based on the results obtained, options for improved or improved treatment system can be explored further.

Total Silver

Since the closure of the photographic darkroom has eliminated the source for the discharge of silver the Surveillance Network Program at Station EUR-3 no longer requires monitoring for Silver. With respect to the regulated requirement for monitoring of Total Silver as required in the licence, an application for amendment should be filed with the Board to have the parameter removed.

In conclusion, the Board approves the document as presented pending results from a more detailed and representative sampling program and appropriate mitigation measures are imposed for stream diversion.

Should you require clarification or additional information please do not hesitate to contact me at the above or via email at dionne@polamet.ca

Sincerely,


Dionne Fillard, P. Eng.
Technical Advisor

- cc. B. Goulet, EC
R. Beavers, DIAND
P. Smith, DIAND
P. Lavelle, DIAND
J. DeGroot, DFO
P. Pacholek, EP-EC

Unknown

From: Boulanger, Natalie [NCR]
Sent: Tuesday, August 19, 2008 11:00 AM
To: Rauch, Tim [Wpg]
Subject: FW: 3BC-EUR0611 Spill Contingency Plan Addendum
Attachments: 080819 3BC-EUR0611 SCP Addendum - OHCE.pdf

Sorry!!

Natalie Boulanger, P. eng

Manager, District 3
Property Management, Environment Canada
335 River Road
Ottawa, Ontario
K1A 0H3
courrier K1V 1C7

Tel: (613) 949-8555
Fax: (613) 949-9017
Cell: (613) 796-8327

From: Richard Dwyer [mailto:licensingadmin@nunavutwaterboard.org]
Sent: August 19, 2008 10:52 AM
To: Boulanger, Natalie [NCR]
Cc: 'Don Carr'
Subject: 3BC-EUR0611 Spill Contingency Plan Addendum

Good morning;

Please see attached requesting spill plan addendum.

Regards,

Richard Dwyer
Licensing Administrator
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU X0B 1J0
Ph (867)360-6338 ext. 29
Fax (867)360-6369

Please visit our website www.nunavutwaterboard.org

Charbonneau,Luc ATIP [NCR]

From: Boulanger,Natalie [NCR]
Sent: Tuesday, August 19, 2008 10:56 AM
To: 'Richard Dwyer'
Cc: 'Don Carr'; Rauch,Tim [Wpg]; Eureka Wx Stn; Boulanger,Natalie [NCR]
Subject: RE: 3BC-EUR0611 Spill Contingency Plan Addendum

Mr. Dwyer,

We will address the email below immediately.

Regards,

Natalie Boulanger, P.eng

Manager, Distric 3
Property Management, Environment Canada
335 River Road
Ottawa, Ontario
K1A 0H3
courrier K1V 1C7

Tel: (613) 949-8555
Fax: (613) 949-9017
Cell: (613) 796-8327

From: Richard Dwyer [mailto:licensingadmin@nunavutwaterboard.org]
Sent: August 19, 2008 10:52 AM
To: Boulanger,Natalie [NCR]
Cc: 'Don Carr'
Subject: 3BC-EUR0611 Spill Contingency Plan Addendum

Good morning,

Please see attached requesting spill plan addendum.

Regards,

Richard Dwyer
Licensing Administrator
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU X0B 1J0
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NUNAVUT IMALIRIYIN KATIMAYINGI
NUNAVUT WATER BOARD
OFFICE DES EAUX DU NUNAVUT

August 19, 2008

Ms Natalie Boulanger, Manager, District 3
Acting Head, Major Construction & Recapitalization Program (MCRP)
Environment Canada Property, Management, Environment Canada
335 River Road
Ottawa, ON K1A 0H3
Email: Natalie.Boulanger@ec.gc.ca

Subject: Further Addendum to Spill Plan Required

Dear Ms. Boulanger,

The NWB has conducted a review of your addendum to the document entitled "Oil Pollution Emergency Plan for Land Spills" dated February, 2008. After review it was noted that most of the requirements have been acted on, however the Licence does have two unaddressed issues. As the issues are specifically required by the Licence 3BC-EUR0611 under Part H, Item 1 vi. and x. the NWB is unable to accept the February 2008 Plan as complete. Another addendum to address Part H, Item 1 vi., x. and updating contact info as per March 26, 2008 INAC comments is required.

The submitted plan covers significant prevention measures in place, however it does not address any cleanup strategies. A simple description of cleanup methods for spills on snow, water, ice and land would suffice. The NWB is aware the Canadian Coast Guard would be present to clean up any spills during the annual refueling, however the Plan must address spill cleanups as the Coast Guard is not always present. For an example, please see sections 6.1 - 6.4 of "070817 2BB-MRY0710 Spill Contingency Plan August 2007-ILAE.pdf" on the NWB ftp site, /2BB%20-%20BULK%20SAMPLING/2BB-MRY/Spill%20Contingency%20Plan/.

If you have any questions as to what is required by the Board please contact me at (867) 360-6338 ext. 30 or by email at dcarr@nunavutwaterboard.org.

Sincerely,

Original Signed By:

Don Carr
Technical Advisor
Nunavut Water Board

Review of Nunavut Water Board License Requirements and INAC Inspection Requirements For Eureka

Item #	Item	Section Title	NWB Descriptions / Requirements	INAC Inspection / Requirements	Status/ Action taken	By	Advised Date
1	Part B.2	General Conditions	File Annual report (March)		Done. Confirmed by site with picture.	Ref	complets
2	Part B.9		Copy of license maintained on site		Determine if it is required by NWB.	Ref	complets
3	Part B.10		One paper/One electronic copy of reports, studies, plans etc detailed executive summary in individual			Ref	complets
4	Part C.2	Conditions applying to Water Use	Equip water intake hoses with screen or appropriate mesh size to ensure no entrapment of fish and if a fish enters fish do not get impinged.		Done. Intake hose screen has 1/2 inch diameter holes.	Ref	complets
5	Part C.4		Freeboard of 1m or as recommended by geotechnical engineer at all ofices, airtight structures associated with water supply facilities.		Need 1m minimum unless otherwise recommended by geotechnical engineer. YVM has incorporated a barrier to prevent flooding in water lagoon. This should help lower the water level to ensure a sufficient freeboard.	Ref	being addressed
6	Part C.7		Sediment and erosion control measures shall be implemented prior to and maintained during the operation to prevent entry of sediments into water.		Previously start piling and wall with water is clear before installing. Purposes to ensure sedimentation from entering lagoon.	Ref	being addressed
7	Part D.1	Conditions applying to Waste Disposal	Areas of waste disposal should be 30m above high water mark.		Sewage lagoon on coast and landfill <30m. Plan to purchase on site treatment plant in future. For erosion and seepage control measures – plan to address and mitigate sewage lagoon includes a project to replace lagoon with an on-site waste water treatment plant.	Ref	being addressed
8	Part D.2		No open burning of domestic waste is permitted.		Open burning of domestic waste stopped as outlined by Appendix F: Responses by EC to inspection report dated Nov. 27th, 2008.	Ref	being addressed
9	Part D.3		Incinerate all combustible waste and ensure all hazardous wastes are disposed of properly		Waste food is burned in incinerator. Waste oil is disposed and burned at site appropriately. New incinerator, with double chamber to be in place by September 2008 will meet CCME standards. Ash disposal samples to be developed outlining how much waste is burned, quantity.	Ref	being addressed
10	Part D.6	Conditions applying to Waste Disposal	Sewage effluent discharged at monitoring station EUR-3 must meet: BOD ₅ <10mg/L, TSS<120mg/L, 6<PH<9, no visible sheen of oil or grease.		Sewage lagoon must comply with the "Guidelines for the Discharge of Treated Municipal Wastewater in the Northwest Territories, 1982", prepared for the NWB. Yearly lab tests conducted on waste water effluent quality. Determine if these meet criteria relating to BOD and TSS (Also check CCME waste water guidelines). Include sampling in intake zone.	Ref	being addressed

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Review of Nunavut Water Board License Requirements and INAC Inspection Requirements For Eureka

Item #	Item	Section Title	NWB Descriptions / Requirements	INAC Inspection / Requirements	Status/Action taken	Actioned	
						By	Date
11	Part D.8		10 days notice for decanting of the sewage lagoon	Discharge from Sewage lagoon- provided 10 days in advance of the discharge, including estimate of volume to be discharged and location of receiving environment. All discharges shall be sampled by the licensee twice- once near beginning of discharge period and once near end. Results are to be provided to the Inspector upon receipt.	Freeboard for waste water lagoon is 0.5m. EC to provide NWB notification 10 days prior to decanting from this point (approximately in August).	Natelle	ongoing/yearly
12	Part D.10	Conditions applying to Infrastructures, Access, and Operations	Sludge Disposal Plan required 90 days prior to commencing work	No action plans in place to address removal of sludge from the lagoon. Prior to any undertaking to remove sludge from the lagoon a disposal plan must be submitted to the Nunavut Water Board for approval.	Need action plan for disposal of existing sludge. Waste water treatment plant may address long term issues with sludge.	Natelle / consultant	
13	Part E.2	Conditions applying to Infrastructures, Access, and Operations	Not to conduct any land based activities within 30m of the ordinary high water mark unless approved.	A review of the NWB FTP site could not locate an approval for the work conducted on the seaward retaining wall of the sewage lagoon. Work was completed in 2006 and included building up of the seaward wall as both the interior and exterior slopes showed signs of scouring. Upon completion of this work visible stress lines running parallel to wall were still in evidence. If this work has not already been approved the Licensee is directed to provide to the Nunavut Water Board and the Inspector As-built drawings signed and stamped by a qualified engineer as well as a copy of the latest Geotechnical inspection of the Lagoon site. This should be provided as an addendum to the 2007 annual report.	Coast guard barge/unloading, temporary storage at shore is required. Determine solution with NWB.	Natelle	
14	Part F.1	Conditions applying to Modifications and Construction	Prior to construction/modifications of dams, dykes, structures intended to contain, withhold or retain water or wastes, submit design drawings for approval. Notification of modifications or construction is required in writing to the board. As there are currently no records on file with the NWB and no engineered drawings or plans were submitted with the application, the NWB requests that this information be provided to the Board as per Part F, item 7.	Number of discrepancies identified with respect to the water storage capacity, fresh water volumes required for transfer and water consumption of the facility, as well as the treated effluent volume and capacity of the sewage lagoon system. Submission of As-built plans and Drawings related to the Construction and Modifications having occurred on site including: Water Supply Facilities, Sewage Treatment Facilities, Land Fills and Land Fill Facilities as well as any petroleum, oil, lubricant or other hazardous chemical storage facilities. From this point forward, all plans will be submitted.	Old landfill report is available, but does not include a strategy. A specific landfill strategy is required. Some recommendations are found in the "Eureka Site Visit Report" conducted June 7, 2007 by Jean La Rose-Dean, Landfill strategy to be addressed through O&M plan with a schedule for implementation. EUREKA - Operation and Maintenance procedures for sewage, solid waste disposal and waste treatment facilities report submitted to the Board on the 23rd of November and is pending the Board's approval at this time (did not include developed Landfill strategy). Submit any changes.	Natelle	ongoing
15	Part G.1	Conditions applying to O&M	Submit O&M manual in accordance with Guidelines for preparing an O&M manual for Sewage and Solid Waste Disposal Facilities Oct 2006.	The Licensee shall, within sixty (60) days of the issuance of this License, submit to the Board for approval, an Operation and Maintenance Manual in accordance with the Guidelines for Preparing an Operation and Maintenance Manual for Sewage and Solid Waste Disposal Facilities, October 1996. The scope of the Plan shall be expanded to include the operation and maintenance of the Water Supply Facilities.	Complete report with recommendations required. (Tank house, power house, new grease, new complex).	Environmental Management / consultant	complete / ongoing
16	Part G.5		Geotechnical inspection of all facilities containing fuel, water, waste during summer. Geotechnical Engineer's report, emailed by NWB within 90 days of inspection. To include covering letter outlining an implementation plan responding to report recommendations.	Submission of required Geotechnical Inspections as outlined in the current license.		Environmental Management / consultant	being addressed
17	Part H.1		Addendum required for Spill Contingency Plan.		Submitted (2006) and waiting for comments from NWB.	Natelle	

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Review of Nunavut Water Board License Requirements and INAC Inspection Requirements For Eureka

Item #	Item	Section Title	NWB Descriptions / Requirements	INAC Inspection / Requirements	Status/ Action taken	Actioned	
						By	Date
18	Part H.3	Conditions applying to Spill Contingency Planning	Review spill contingency plan annually All pump and fuel catches shall be located a minimum of 30m above ordinary high water mark of water bodies and inspected regularly	For the assessment purposes, water body or the licensee of the current license an addendum to address deficiencies in the filed report. The review could not locate the required addendum or a specific approval from NWB indicating acceptance of any further documents from the licensee. Required to ensure that no chemical, petroleum products or wastes enter water and that they are not located within 30 meters of the ordinary high water mark of any water body. There are concerns with location of the sewage lagoon having been installed immediately adjacent to Slides Ford within the required 30 meter setback. Required to submit detailed report to inspector on each spill occurrence no later than 30 days following initial event.	EUREKA - Oil Pollution Emergency Plan for Land Spills submitted (Add addendum covering Monitoring Program). To be annually reviewed. Waiting for comments from NWB. Must move fuel catches. To develop procedure to address this issue.	Environmental Management	November 23/2007
19	Part H.4				Possibly use secondary containment and inspect regularly. Must move fuel catches. To develop procedure to address this issue.	Environmental Management/	
20	Part L.1	Conditions applying to Abandonment and Restoration	Abandonment and Restoration Plan (Abandoned and existing facilities). NWB requests that an interim Abandonment and Restoration Plan be submitted that will conceptually address the final abandonment of the facility. This Plan is to be prepared and submitted to the NWB for approval as per Part I, Item 1 of this License. Provide interim Abandonment and Restoration Plan	A review of the NWB FTP site could not locate the any documentation relating to the abandonment or restoration of the Eureka site. The Licensee was to have submitted the required interim report within 8 months of the issuance of the current license. The Licensee is directed to provide the required information (Plan) to the Nunavut Water Board within 30 days of receipt of this report. This report was also due within 9 months of the issuance of the current license.	Within 8 months, need to provide a specific for each site (description of remediation objectives and measures or actions, description of final desired landscape, process for progressive restoration and schedule, post closure team) for drainage water and acceptable for discharge, monitoring program, details of closure methods in case of premature closure, details). Review annually. Develop both interim and final Abandonment and Restoration Plan. Neither have been initiated	Consultant	
21	Part L.7		West Airstrip Landfill	A report on the Reclamation of the West Airstrip Landfill was not located during the review of the FTP site.	Provide a report/positions on the Reclamation of the West Airstrip Landfill. Landfill items are being pushed back to surface with pumafrost and require re-burying.	Environmental Management	Report not available
22	Part J.1		Measure daily quantities of water pumped from Station Creek during annual recharge of fresh water lagoon		Fresh water lagoon filled twice per year (Spring and Fall). Presently done via pump capacity x time.	Native	ongoing
23	Part J.2		Measure in-cum monthly fresh water quantity used for facilities operations (maximum allowed 10,000 cumy).	Measures noted in the waste facilities during inspection and quantity records were available for review.	Water potential of 12,000L in fresh water lagoon. DW/ measured via water meter. Monthly water data logs available on consumption.	Rail	ongoing
24	Part J.3		Measure daily quantities of effluent pumped from sewage lagoon during release to the environment.	No measures or other means were in use to record quantities of effluent deposited in the lagoon.	Done at specific times of year.	Rail	being addressed
25	Part J.4		GPS co-ordinates (deg, min, sec of lat and long) of all locations where sources of water are utilized		Available on shared drive and included in Annual Report	Rail	complete
26	Part J.5	Conditions Applying to the Monitoring Program	GPS co-ordinates (deg, min, sec of lat and long) of all locations where waste are deposited.		Available on shared drive and included in Annual Report	Rail	complete
27	Part J.6		Signs required for monitoring program stations and to inform public of water supply and waste disposal.		Done.	Native	complete
28	Part J.7		Quality Assurance/Quality Control Plan based on the principles of the "NAC QA/QC Guidelines for licensees" that addresses the field and laboratory procedures and requirements needed to carry out monitoring program.		Copy of guidelines required. EUREKA - Quality assurance (QA) and Quality Control (QC) Program submitted. To be annually reviewed.	Environmental Management	November 23/2007

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Review of Nunavut Water Board License Requirements and INAC Inspection Requirements For Eureka

Item #	Item	Section Title	NWB Descriptions / Requirements	INAC Inspection / Requirements	Status/Action taken	Actioned	
						By	Date
29	Part J.1.1		Sampling and analysis requirement: EUR-1: Raw water supply prior to treatment flow measurement monthly; EUR-2: Runoff from the solid waste disposal facilities, SS, pH and conductivity; cations, nutrients, substrates, O&G, phenols, metals, mercury (during low periods) EUR-3: Discharge from sewage lagoon conductivity, cations, nutrients, substrates, O&G, phenols, sewage solids removed from sewage lagoon.		Purpose is to collect data on water quality for H&S and assess potential impacts to the environment associated with the waste disposal facility. Drinking water sampling conducted (requiring analysis / interpretation) as waste water analysis, O&G waste water and soil analysis of sewage lagoon conducted.	Environmental Management	May 27/2007 & July 20/2007 & ongoing
30	Part J.1.2		Revisions to Monitoring Program outlined in table 1	A review of the NWB FTP site could not locate a request for review from the licensee regarding any changes to the proposed monitoring plan.	EUREKA - Proposal for revision and update of the surveillance network monitoring program	Environmental Management	November 29/2007
Other INAC Observations							
31				Very little secondary containment for drummed and stored fuel product was found on-site. Drummed product from the Government of Nunavut and other agencies was noted on site without any secondary containment. No secondary containment at fuel transfer areas (helicopter and vehicle) was noted.	Fuel storage (barrels) require secondary containment. Long term project to look at secondary containment included in capital planning.	Native	being addressed
32				Obvious fuel spills were noted at the fuel transfer area on the airstrip. Trenches had been dug and absorbent booms were visible on site. Information collected during the inspection is that the spilled product originated from a bladder on site owned by DND. No spill report can be located and clean up work was not complete.	DND responsibility. Outline responsibility in MOU to outline responsibilities related to prevention and clean-up. Clear procedures to be put into place. DND to produce spill reports and notification to EC and NWB.	Environmental Management	
33		Hazardous Materials Management		Large bulk wastes are being deposited over the edge of a hill at the Station Creek Drainage basin. Materials noted on site included: insulation, barrels, tires, old fuel tanks, burned fuel and oil fires, batteries and other hazardous materials. The Licensee is mandated to include in the 2007 annual report due on March 31st 2008 a list of hazardous materials shipped out of the camp, the treatment received, and the location of the approved treatment facility to which they were sent. All of the foregoing is required information to be included in the annual report. Shipping and weighing invoices are not required so long as the records are available for inspection during the 2008 inspection period.	Marshalling of hazardous materials shipping off site - record keeping is required. Location and approval acknowledgement of the treatment facility where hazardous wastes generated on site are shipped. Hazardous Materials Management strategy required to ensure hazardous materials are not disposed of on-site.	Environmental Management	
34				Land filling practice of crushing and burying old drums should be reviewed and a plan submitted to address the numerous bury sites in the general area.	Develop plan to ensure drums are returned by wherever supplies (including strategy to ship fuel barrels back south).	Consultant	
35				Location and verification of treatment for land farming of hydrocarbon contaminated materials	Determine degree of contamination to land farm status of hydrocarbon remediation. Determine if details including who is managing the treatment, how is it being done, the extent of residual contamination and results, as well as treated future in-situ treatment.	Environmental Management	

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Comments
to be filed annually every March.
This covers Item Part D.1
Is this acceptable? (TSS ok as per test test)
No known approvals were given for waste water lagoon. Treatment plant included in capital planning.
(KOU) to be developed to ensure other demonstrators at Euvela stop open burning as well.
Testing of air emissions may be required. To be included in procedure.
EC document "An Approach for Assessing and Managing Wastewater Effluent Quality for Federal Facilities Final Report", June 1st 2000 to be referenced.

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Comments	
Include this in a procedure.	Possibly to be part of restoration plan
Will wait for comments from NWB.	
Copies of past work not available, but will be submitted in the future	Landfill Strategy to be developed in O&M plan.
Determine scope of geotechnical inspections.	

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Comments
To be included in procedure.
Electromagnetic survey conducted on West Abasco Landfill may be tied into "Landfill Strategy" as part of O&M plan.
Waiting for comments to determine if this is satisfactory to inspector.
Covers Part B.4.
Covers Item Part C.1 and Part B.4.
Consumption logs to be forwarded to Environmental Management.
Determine if sufficient to inspector.
Covers Part B.5.
Waiting for comments to determine if this is satisfactory to inspector.

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Comments	
	To be included in annual report.
	Waiting for comments to determine if this is satisfactory to Inspector. May require further amendments.
	These ISSUES required corrective action to be undertaken prior to the date of the next inspection. The submission of a report indicating the successful completion of the activity was requested at the time of the inspection.
	Follow up with John McIver to determine what record keeping is currently in place. Records to be kept on site and in Ottawa. To be outlined in a procedure.
	To be outlined as part of "Landfill Strategy". Related also to Abandonment and Restoration plan.
	Information available in Eureka Site Visit Report conducted June 7, 2007 by Joan La Rue-van. John McIver has records.

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Review of Nunavut Water Board License Requirements and INAC Inspection Requirements For Eureka

Item #	Item	Section Title	NWB Description and Details	INAC Inspection / Requirements	Status/ Action taken	Actioned		Comments
						By	Date Completed	
1	II B	Annual Report	Annual Report to NWB	Annual Report submitted	Electronic copy available on shared drive- Document #39- Study of Waste Water and Water Supplies at Eureka Weather Station (2002)	Stan	Mar-08	Requires additional reports
2	II C	Water Use	EC Study done in 1999 to address concerns w/ water supply and wastewater disposal systems EC document: "An Approach for assessing and Managing Wastewater Effluent Quality for Federal Facilities Final Report, June '98 2000" and sewage lagoon must comply with the Guidelines for the Discharge of Treated Municipal Wastewater in the Northwest Territories, 1992, prepared for the N.W.T. Water Board. Limits have been imposed for Biochemical Oxygen Demand (BOD) and Suspended Solids (TSS) and the licensee must comply with these limits.	-ab tests conducted on waste water effluent quality. Determine if these meet criteria relating to BOD and TSS. Report is available, but does not include a strategy. A specific strategy is required. Some recommendations are found in the "Eureka Site Visit Report" conducted June 7, 2007 by Joan La Rue-Van	Paul		complete (document found)	
3	II D.i	Deposit of Waste: Sewage Effluent Quality Parameters	Deposit of Waste: Sewage Effluent Quality Parameters	EU/REKA - Operation and Maintenance procedures for sewage, solid waste disposal and waste treatment facilities impact submitted. Need minimum unless otherwise recommended by geotechnical engineer	Paul		November 29/2007	
4	II D.iii	Deposit of Waste: Solid Waste	Deposit of Waste: Solid Waste	EU/REKA - Operation and Maintenance procedures for sewage, solid waste disposal and waste treatment facilities impact submitted.	Paul		November 29/2007	
5	II D.iv	Operation and Maintenance Plan	Operation and Maintenance Plan for the Sewage and Solid Waste Disposal Facilities (O&M Plan). Pending since April 2004 licence	EU/REKA - Operation and Maintenance procedures for sewage, solid waste disposal and waste treatment facilities impact submitted.	Paul		November 29/2007	
6	II D.iv	Maintenance Plan	Freeboard for waste water lagoon is 0.6m	Modification of modifications of construction is required in writing to the board. Number of discrepancies identified with respect to the water storage capacity, fresh water volumes required for transfer and water consumption of the facility, as well as the treated effluent volume and capacity of the sewage lagoon system.	EU/REKA - O&M Pollution Emergency Plan for Landfills submitted (add addendum covering "Monitoring Program").	Paul	November 23/2007	
7	II E	Modifications and Construction	Modifications and Construction	As there are currently no records on file with the NWB and no engineered drawings or plans were submitted with the application, the NWB requests that this information be provided to the Board as per Part F, Item 7.	EU/REKA - O&M Pollution Emergency Plan for Landfills submitted (add addendum covering "Monitoring Program").	Paul	November 23/2007	
8	II F	Spill Contingency Planning	Spill Contingency Plan submitted but requires an addendum	Abandonment and Restoration Plan (Abandoned and existing facilities). NWB requests that an interim Abandonment and Restoration Plan be submitted that will temporarily address the final abandonment of the facility. This Plan is to be prepared and submitted to the NWB for approval as per Part, Item 1 of this licence	Develop both interim and final Abandonment and Restoration Plans. Neither have been initiated.	Paul		Report not available.
9	II G	Abandonment and Restoration (A&R)	Abandonment and Restoration (A&R)	Develop both interim and final Abandonment and Restoration Plans. Neither have been initiated.	Paul			Report not available.

Review of Nunavut Water Board License Requirements and INAC Inspection Requirements For Eureka

Item #	Item	Section Title	NWB Description and Details	INAC Inspection / Requirements	Status/ Action taken	By	Actioned Date Completed	Comments
10	111	Monitoring Program	Collect data on water quality for H&S and assess potential impacts to the environment associated with the waste disposal facility.		Drinking water sampling conducted (requiring analysis/interpretation) as waste water analysis. DND waste water and soil analysis of sewage lagoon conducted.	Natalie	May 27/2007 & July 20/2007	
11	Part B.2	General Conditions	File Annual report Implement suitable methods (flow meters, etc.) required for measuring water volumes and waste discharged Signs required for monitoring program stations and to inform public of water supply and waste disposal. Copy of licence maintained on site		Need a summary report of water use and disposal activities (have meterator log, pump capacity x time), data generated by monitoring program, monthly and annual quantities of fresh water (all intake done in 1.5 weeks in summer and again late in summer), monthly and annual quantities of waste discharge (done yearly), modifications/major maintenance carried out on water/waste, unauthorized discharges, abandonment/restoration plan, remedial/enhancement plan, studies (future, past, present), O&M manual, spill contingency plan, abandonment/restoration plan.	EDG/Sar		
12	Part B.4				Use pump capacity x time to get volume for waste. DVM measured via water meter.	Natalie		Is this sufficient?
13	Part B.5				Signs up.	Natalie	complete	To the satisfaction of the inspector?
14	Part B.9				Done. To confirm by site with picture	Rai	complete	
15	Part B.10		One paper/One electronic copy of reports, studies, plans etc. detailed executive summary in Inuktitut		Copies???	Natalie		
16	Part C.1		Maximum 12,000 cum/y		Water potential of 12,000L of fresh water lagoon. Monthly water data logs available on consumption.		complete	Where are these logs kept?
17	Part C.2		Equip water intake hoses with screen of appropriate mesh size to ensure no entrainment of fish and at a rate where fish do not get impinged		Done- Intake hose screen has 1/4 inch diameter holes.	Rai	complete	
18	Part C.4	Conditions applying to water use	Freeboard of 1m or as recommended by geotechnical engineer at all dykes earthen structures associated with water supply facilities.	Water supply facilities did not have an average freeboard of 1m along the road side berm. A review of the Nunavut Water Board FTP site could not locate an inspection certificate or approval from the Nunavut Water Board allowing or approving the encroachment on the 1 meter freeboard.	Not done. What is it presently and where?	Rai		The property has to do with the structure of the fresh water lagoon and ensure you prevent erosion. TSS OK as
19	Part C.7		Seed plant and erosion control measures shall be implemented prior to and maintained during the operation to prevent entry of sediments into water		Presently start pumping and wait until water is clear before returning. Is this acceptable?	Natalie		

Review of Nunavut Water Board License Requirements and INAC Inspection Requirements For Eureka

Item #	Item	Section Title	NWB Description and Details	INAC Inspection / Requirements	Status/ Action taken	Actioned		Comments
						By	Date Completed	
20	Part D.1		Areas of waste disposal should be 30m above high water mark.	A review and examination of the Nunavut Water Board FTP site could not locate a document providing specific approvals for the location of the constructed lagoon and as such it is the opinion of the inspector that the site of the lagoon is contrary to the issued license.	Sewage lagoon on coast and landfill <30m. Plan to purchase on site treatment plan in future. For erosion and seepage control measures – need plan to address and mitigate sewage lagoon.	Natalie		Did we get a designation for this???
21	Part D.2		No open burning of domestic waste is permitted.	Open burning contrary to the issued license was noted.	Open burning of domestic waste stopped as outlined by Appendix F. Responses by EC to inspection report dated Nov 27th, 2008.	Natalie	complete	
22	Part D.3		Inoperative all combustible waste and ensure all hazardous wastes are disposed of properly	The capability of the incinerator found on site to meet the Canada-wide Standards for Dioxins and Furans and the Canada-wide Standard for Mercury Emissions was not reviewed with the proponent. The licensee is reminded that this standard must be met by the date of the next inspection if not already achieved.	Waste hood is burned in incinerator, waste oil is disposed and burned off site appropriately. Need to assess other methods used to dispose of other hazardous materials used at Eureka. Must meet CCME standards by next inspection.	Rail		Reports of proper disposal for place? Need copies.
23	Part D.6	Certifications applying to Waste Disposal	Sewage effluent discharged at monitoring station Eureka must meet: BOD5<100mg/L, TSS<120mg/L, 6<PH<9, no visible sheen of oil or grease.		Yearly testing conducted.	Natalie		How does it compare to the requirements???
24	Part D.7		Fenceboard of 1m required at all dyes, earthfill structures associated with water supply.		If possible, reduce the amount of water in fresh water supply lagoon while determining means of ensuring adequate water supply.	Natalie		Not done, how do we proceed?
25	Part D.8		10 days notice for decanting of the sewage lagoon	Licensee is required to provide notification to the inspector prior to conducting a discharge from the sewage lagoon, provided 10 days in advance of the discharge and include an estimate of volumes to be discharged as well as the location of the receiving environment. All discharges shall be sampled by the licensee 48-hours prior to the beginning of the discharge period and once near the end. Results are to be provided to the inspector upon receipt.	Provide NWB notification 10 days prior to decanting (approximately in August).	Natalie	ongoing/yearly	The decanting is done once a year but NWB never given notice as far as I know.
26	Part D.10		Sludge Disposal Plan	No action plans in place to address removal of sludge from the lagoon. Prior to any undertaking to remove sludge from the lagoon a disposal plan must be submitted to the Nunavut Water Board for approval.	For the removal and disposal of sludge from the sewage disposal facility. Study/ guidelines found. Need action plan.	Rail		Hard copy available.
27	Part E.2	Public Infrastructure, access and Operators	Not to conduct any land based activities within 30m of the ordinary high water mark unless approved.		Coast guard leading/unleading, temporary storage at shore???	Natalie		

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Review of Nunavut Water Board License Requirements and INAC Inspection Requirements For Eureka

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26	Part F.1	Conditions applying to modifications and construction	Prior to construction/modifications of dams, dykes, structures intended to contain/ withhold or retain water or wastes, submit design drawings for approval	A review of the Nunavut Water Board FTP site could not locate an approval for the work conducted on the seaward retaining wall of the sewage lagoon. Work was completed in 2006 and included bulking up of the seaward wall as both the interior and exterior slopes showed signs of sloughing. Upon completion of the work visible stress lines running parallel to wall were still in evidence. If this work has not already been approved the Licensee is directed to provide to the Nunavut Water Board and the Inspector Arctic Air-Train drawings signed and stamped by a qualified engineer as well as a copy of the latest Geotechnical inspection of the Lagoon site. This should be provided as an addendum to the 2007 annual report	Submission of As built plans and Drawings related to the Construction and Modifications having occurred on site including: Water Supply Facilities, Sewage Treatment Facilities, Land Fills and Land Fill Facilities as well as any petroleum, oil, lubricant or other hazardous chemical storage facilities			
28	Part G.1	Conditions applying to O&M	Submit O&M manual in accordance with "Guidelines for preparing an O&M manual for Sewage and Solid Waste Disposal Facilities Oct 2008"	The Licensee shall, within sixty (60) days of the issuance of this License, submit to the Board for approval, an Operational and Maintenance Manual in accordance with the "Guidelines for Preparing an Operational and Maintenance Manual for Sewage and Solid Waste Disposal Facilities", October 1996. The scope of the Plan shall be expanded to include the operation and maintenance of the Water Supply Facilities.	This manual was submitted to the Board on the 23rd of November and is pending the Board's approval at this time	Paul	complete	
30	Part G.5		Geotechnical inspection of all facilities containing fuel, water, waste	Submission of required Geotechnical Inspections as outlined in the current license	(Tank house, sewer house, new garage, new complex)	Natalie		
31	Part H.1		Addendum required for Spill Contingency Plan		Need original that was sent to water board, to include (revisions seen license requirements)	Natalie		

Review of Nunavut Water Board License Requirements and INAC Inspection Requirements For Eureka

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32	Part H.3	Condition's applying to spill contingency planning	Review spill contingency plan annually. All pumps and fire catches shall be located a minimum of 50m above ordinary high water mark of water bodies and inspected regularly.	As per section 1 (i) through x) The licensee was to have submitted to the Nunavut Water Board, within 60 days of the issuance of the current license an addendum to address deficiencies in the filed report. The review could not locate the required addendum or a specific approval from the Nunavut Water Board indicating acceptance of any further documents from the licensee. The Licensee is reminded that as per section 4 of the Part, the Licensee is required to erravate that no chemical, petroleum products, or wastes enter water and that they are not located within 30 meters of the ordinary High water mark of any water body. There are concerns with location of the sewage lagoon having been installed immediately adjacent to Silver Ford and well within the required 50 meter setback. The Licensee is reminded that as per Section 6 (ii) of this Part the Licensee is required to submit a detailed report to the Inspector on each spill occurrence no later than 30 days following the initial event.	Annually	Paul		
33	Part H.4				Maybe use secondary containment? Inspect regularly	Natlie		
34	Part I.1	Conditions applying to abandonment and restoration	Provide Interim Abandonment and Restoration Plan	A review of the Nunavut Water Board FTP site could not locate the any documentation relating to the abandonment or restoration of the Eureka site. The Licensee was to have submitted the required Interim report within 9 months of the issuance of the current license. The Licensee is directed to provide the required information (Plan) to the Nunavut Water Board within 30 days of receipt of this report. A report on the Restoration of the West Airstrip Lagoon was not located during the review of the FTP site. This report was also due within 9 months of the issuance of the current license.	Within 9 months. Need to provide a specific for each site (description of remediation objectives and measures or actions, description of final cester, landscape, process for progressive restoration and schedule, post closure treatment for drainage water not appropriate for discharge, monitoring program, details of closure methods in case of premature closure, aesthetics). Review annually. Reports have not been initiated	Paul		
35	Part I.7		West Airstrip Lagoon		Provide a Report on the Remediation of the West Airstrip Lagoon.	Paul	Report not available	
36	Part I.1		Measure daily quantities of water pumped from Station Creek during annual recharge of fresh water lagoon		Presently done via pump capacity x time	Natlie		Satisfactory to Inspector?
37	Part I.2		Measure pump monthly fresh water quantity used for facilities operations	Meters noted in the intake facilities during inspection and quantity records were available for review	fresh water lagoon filled twice per year (spring and fall). Meter installed where? Monthly water consumption logs available?	Rai	Ongoing	

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33	Part 1.3		Measure daily quantities of effluent pumped from sewage lagoon during release to the environment.	No releases of other means waste in use to record quantities of effluent deposited in the lagoon.	Done at specific times of year.	Rai		
39	Part 1.4		GPS co-ordinates (deg. min. sec. of lat and long) of all locations where sources of water are utilized.	Available on shared drive (Determin if submitted to NWB).	Available on shared drive (Determin if submitted to NWB).	Rai		Submitted?
40	Part 1.5		GPS co-ordinates (deg. min. sec. of lat and long) of all locations where waste are deposited.	Available on shared drive (Determin if submitted to NWB).	Done.	Notable		Submitted? Determine if submitted to Inspector.
41	Part 1.5	Conditions applying to the monitoring Program	Post signs to identify monitoring program. Quality Assurance/Quality Control Plan based on the principles of the "INAC QA/QC Guidelines for licensees" that addresses the field and laboratory procedures and requirements needed to carry out monitoring program.	Copy of guidelines required: EUREKA - Quality Assurance (QA) and Quality Control (QC) Program submitted.		PAJ	November 23/2007	
42	Part 1.7		EUR 1 Raw water supply prior to treatment flow measurement monthly. EUR 2 runoff from the solid waste disposal facilities SS, pH and conductivity. cations, nutrients, sulphates, Cl ₂ , phenols, metals, mercury (during flow periods). EUR 3 discharge from sewage lagoon conductivity, cations, nutrients, sulphates, Cl ₂ , phenols, sewage solids removed from sewage lagoon.	No meters or other means were in use to record quantities of effluent deposited in the lagoon.				
43	Part 1.8			A review of the Nunavut Water Board FTY site could not locate a request or review from the licensee regarding any changes to the proposed monitoring plan.	EUREKA - Proposal for revision and update of the store lance network monitoring program.	Notable	November 23/2007	
44	Part 1.12		Revisions to Monitoring Program outlined in table 1.	Other INAC Observations				
		Hazardous Materials Management	These issues required corrective action to be undertaken prior to the date of the next inspection. The submission of a report indicating the successful completion of the activity was requested at the time of the inspection.	Very little secondary containment for drummed and stored fuel product was found on site. Drummed product from the Government of Nunavut and other agencies was noted on site without any secondary containment. No secondary containment at fuel transfer areas (helicopter and vehicles) was noted. Obvious fuel spills were noted at the fuel transfer areas on the Airfield. Trenches had been dug and absorbent booms were visible on site. Information collected during the inspection is that the spilled product originated from a bladder on site owned by DND. No spill report can be located and clean up work was not complete.	Fuel storage (drums) require secondary containment.			
					DND responsibility. On time responsibility in MOU.	DND		

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				Large bulk wastes are being deposited over the edge of a hill at the Sparrow Creek Drainage basin. Materials noted on site included: insulation, barrels, tires, old fuel tanks, Burned fuel and oil flasks, Batteries and other hazardous materials. The Userbase is reminded to include in the 2007 annual report due on March 31st, 2008 a list of hazardous materials shipped out of the camp, the treatment received, and the location of the approved treatment facility to which they were sent. All of this foregoing is required information to be included in the annual report. Shipping and receiving invoices are not required so long as the records are available for inspection during the 2008 inspection season.	Marshaling of hazardous materials/ shipping of site record keeping is required. Location and approval/ acknowledgement of the treatment facility where hazardous wastes generated on site are shipped. Hazardous Waste and Management strategy required to ensure hazardous materials are not disposed of on-site.			
				Land filling/ practice of crushing and burying of drums should be reviewed and a plan submitted to address the numerous bury sites in the general area.	Develop plan to ensure drums are returned by whoever supplies fuel-including strategy to ship fuel barrels back south.			
				Location and verification of treatment for land burning of hydrocarbon contaminated materials	Determine degree of contamination in land farm status of hydrocarbon remediation.			Information available in Eureka Site Visit Report conducted June 7, 2007 by Jean LaRue-Vin.

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