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July 11, 2022

File: MV2011L4-0002
MV2020X0004

Matthew Miller,
Senior Environmental Licensing Specialist
Health, Safety & Environment
Northwest Territories Power Corporation
4 Capital Drive,
Hay River NT X0E 1G2

Sent by email

Dear Matthew Miller:

**Project Description Amendment and Water Intake Facility Modification Request - Approved
Taltson Twin Gorges Hydroelectric Facility – Northwest Territories Power Corporation**

The Mackenzie Valley Land and Water Board (the Board) met on July 7, 2022 and reviewed the Taltson Hydroelectric Facility water intake facility project description amendment request and modification request submitted by the Northwest Territories Power Corporation (NTPC) on June 1, 2022. The project description amendment request for Permit MV2020X0004 was submitted in accordance with subsection 26(2) of the Mackenzie Valley Land Use Regulations (MVLUR) and the Licence modification request was submitted in accordance with Part G, Conditions 1 and 3 of Water Licence MV2011L4-0002.

The Board hereby approves the project description amendment and modification request, as described. Since no changes are required to permit conditions to reflect the project description amendment, an updated permit is not required.

Submission Requirements

The Board's decisions on submissions that were considered in conjunction with the Application Package are set out below.

Management Plans – Revisions Required

The Board requires that the following Plans be revised to include all changes detailed in the Review Comment Table and submitted by the dates outlined in the following table. The revised Plans will be considered approved when the Permittee receives written confirmation of conformity. All Plans should include version numbers and have accompanying cover letters identifying the authorizations for which they apply. Until the revised Plans are approved, the Permittee may not commence the activities associated with the revisions.

Condition Number and Title	Title of Plan	Date Revision Due
#39, WASTE MANAGEMENT and #76 RESUBMIT PLAN	Waste Management Plan	July 12, 2022
#57, SPILL CONTINGENCY PLAN and #76 RESUBMIT PLAN	Spill Contingency Plan	July 12, 2022
#77, ENGAGEMENT PLAN and #76 RESUBMIT PLAN	Engagement Plan	July 12, 2022
#19, SEDIMENT AND EROSION CONTROL MANAGEMENT PLAN, #20, SEDIMENT AND EROSION CONTROL MANAGEMENT PLAN – REVISIONS, and #76 RESUBMIT PLAN	Sediment and Erosion Control Plan	July 12, 2022

Inspectors

The Inspectors referred to in the Permit can be contacted at the regional GNWT-Lands offices.¹

The Board notes and appreciates NTPC's efforts to report in accordance with the requirements of Licence MV2011L4-0002 and Permit MV2020X0004. Full cooperation of NTPC is anticipated and appreciated. Please contact [Shannon Allerston](#) at (867) 766-7465 with any questions or concerns regarding this letter.

Yours sincerely,

Mavis Cli-Michaud
Chair, Mackenzie Valley Land and Water Board

Attachments: Review Comment Table

Copied to: Akaitcho Distribution List
Wendy Bidwell, GNWT-ENR Senior Water Resource Officer

¹ See GNWT-Lands Inspection and Enforcement webpage (<https://www.lands.gov.nt.ca/en/services/inspections-and-enforcement>) for regional contact information.

Reviewer Comments and Proponent Responses

Project: Taltson Hydroelectric Facility Upgrades
Board: Mackenzie Valley Land and Water Board
Organization: Northwest Territories Power Corporation (NTPC)

No.	Topic	Reviewer Comment	Reviewer Recommendation	Proponent Response	Board Decision
GNWT-ENR - EAM (Environmental Assessment and Monitoring) - Erin Goose					
1	Erosion and Sediment Control Plan – Total Suspended Solids/Turbidity Monitoring	Section 6.6 of the Erosion and Sediment Control Plan (ESCP) states the following: “If the ESC measures were to fail and turbid water reached a watercourse NTPC may also complete TSS/turbidity monitoring if required.” ENR notes that no information is provided on what factors would be considered in determining whether total suspended solids (TSS)/turbidity monitoring was required, nor on who would be involved in making that determination.	ENR recommends that Northwest Territories Power Corporation (NTPC) provide additional information on the possibility of carrying out TSS/turbidity monitoring in the event that turbid water reaches a water course. This should include detail on the factors that would be considered and the people who would be involved in making that determination.	Section 6.6 will be updated with additional information on TSS/Turbidity monitoring, factors that would be considered and the people that will be involved as follows: “If the ESC measures were to fail and turbid water reached a watercourse NTPC may also complete TSS/turbidity monitoring if required. If visibly turbid water is observed entering a waterway, or a turbidity plume is observed within a watercourse, the onsite ESC Monitor and the Plant Operator are to be informed immediately. Immediate action would be taken to isolate the contact water by deploying a floating sediment curtain to contain sediment, and the source of the turbid water would be contained and eliminated by using silt fences, pipes, sandbags, or a soil berm down-slope from the affected area. The	Noted. It is not clear how TSS monitoring might be implemented downstream, aside from visual observation, to ensure the mitigation measure have meet the goals of isolating the source. Appendix C provides additional information on TSS/Turbidity Monitoring in the vicinity of the work that would be implemented in a plume is observed. No concerns on that monitoring has been identified. Based on the risk and scope of work proposed, Board staff think the response may be reasonable. Resubmit with edits as required.

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				ESC monitor will establish the monitoring requirements and sampling locating transects relative to the work area, source of the turbid water and extent of the plume.	
2	Erosion and Sediment Control Plan – Action Levels	<p>In Section 3.1.3 of Appendix C of the ESCP, the thresholds for the low and medium action levels overlap, with low being TSS of 15 to 25 mg/L above background levels, and medium being TSS of 20 to 25 mg/L above background levels.</p> <p>Additionally, one of the tasks for the high action level is to “implement additional mitigation measures”. ENR notes that no information is provided on what types of additional mitigation measures may be implemented.</p>	<p>ENR recommends that NTPC revise the thresholds for the low and medium action levels so that they do not overlap with one another.</p> <p>ENR recommends that NTPC provide additional detail on the types of additional mitigation measures that may be implemented in the event of a high action level trigger.</p>	<p>NTPC will revise the thresholds for low and medium action levels so they do not overlap with one another.</p> <p>The Low threshold will be adjusted to 15 to 20 mg/L above background levels, and medium levels to 20 to 25 mg/L above background levels.</p> <p>Section 3.1.3 of Appendix C will be updated with the following additional mitigation measures that will be implemented in the event of a high action level trigger: “In the event of a high action level trigger, the following mitigation measures will be implemented:</p> <ul style="list-style-type: none"> • Immediately stop construction activities • Inspect turbidity curtain for breaks or deficiencies and remediate. If necessary, install additional turbidity curtain if plume is observed outside the contained area. • Containment and elimination of the source by implementing additional control strategies to 	<p>Noted. Reasonable and standard response actions presented. Similar level of detail should also be included for the Moderate/Medium Action Level. Resubmit with edits as required.</p>

No.	Topic	Reviewer Comment	Reviewer Recommendation	Proponent Response	Board Decision
				<p>manage on-site contact water with additional silt fences, pipes, sandbags, or a soil berm down-slope from the affected area;</p> <ul style="list-style-type: none"> • When containment is complete, clean up turbid water and sediment will be directed to the most logical location to either infiltrate or settle the suspended particles 	
3	Waste Management Plan – Quantity of Waste Produced	The Guidelines for Developing a Waste Management Plan (MVLWB, 2011) recommend that for each type of waste identified, an estimate be provided of the volume or mass to be produced. ENR notes that the Waste Management Plan (WMP) does not provide estimates for the quantities of waste to be produced.	ENR recommends that, for each type of waste identified, NTPC provide an estimate of the quantity to be produced.	NTPC will provide an estimate for each type of waste identified	Noted. Resubmit with edits as required.
4	Waste Management Plan – Disposal at Offsite Facilities	The WMP explains that some wastes will be transported to Fort Smith or Hay River for disposal. ENR notes that no confirmation is provided from facilities in Fort Smith or Hay River indicating their ability to accept waste from the Taltson Hydroelectric Facility.	ENR recommends that NTPC provide documentation from all potential offsite waste disposal facilities confirming their ability to accept waste from the Taltson Hydroelectric Facility.	NTPC will provide documentation for the approved disposal facilities and include as part of the attachments	Noted. Resubmit with edits as required.
5	Spill Contingency Plan – Federal Regulator	Section 4.3 of the Spill Contingency Plan (SCP) includes Indian and Northern Affairs Canada (INAC) as a regulator that could be contacted by the Director, Health, Safety & Environment in the event of	ENR recommends that NTPC update Section 4.3 of the SCP to replace the reference to INAC with the current appropriate federal government department.	NTPC replace with INAC with appropriate federal government department	Noted. Resubmit with edits as required.

No.	Topic	Reviewer Comment	Reviewer Recommendation	Proponent Response	Board Decision
		a spill. ENR notes that INAC no longer exists and that the SCP should be updated to reflect the current federal government department.			
6	Taltson Winter Road Schedule	Appendix H of the WMP and Appendix J of the SCP both indicate that the Taltson Winter Road is “tentatively scheduled for construction and operation for three to five seasons, beginning in January 2020.” ENR notes that winter 2022 would have been the third season, yet the appendices do not provide an update on the number of seasons for which the Winter Road is still expected to be required.	ENR recommends that NTPC provide an updated estimate of the number of seasons for which the Winter Road is still expected to be required.	The Winter Road will be required until the spring of 2024. NTPC will update the text to provide the number of seasons the Winter Road is still expected to be required.	Noted. Resubmit with edits as required.
7	References:	Mackenzie Valley Land and Water Board (MVLWB). 2011. Guidelines for Developing a Waste Management Plan.	N/A	N/A	
8	Cover Letter	Comments from ENR	N/A	N/A	
No.	Topic	Reviewer Comment	Reviewer Recommendation	Proponent Response	Board Decision
MVLWB - Andy Wheeler					
1	Construction of Replacement Facilities and Overhaul - Engagemetn Plans	NTPC included an Engagement Plan as part of this submission. On June 16, the Board approved the updated PEP under Licence MV2011L4-0002, which was submitted in support of a modification request to support the refurbishment of the Taltson Facility generator and turbine. These plans appear to overlap, covering ongoing overhaul work associated with	If they overlap, consolidate the engagement plans for the Taltson project into one inclusive document	NTPC will consolidate the engagement plans for the Taltson project into one inclusive document.	Noted. Resubmit with edits as required.

No.	Topic	Reviewer Comment	Reviewer Recommendation	Proponent Response	Board Decision
		Permit MV2020X0004 and Licence MV2011L4-0002. Can NTPC explain why two separate engagement plans appear to have been developed addressing the same scope of work?			