



Mackenzie Valley Land and Water Board
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Staff Report

Applicant: Northwest Territories Power Corporation (NTPC)	
Location: Jackfish Power Generating Plant, Yellowknife NT	File Number: MV2019L1-0001
Date Prepared: September 3, 2019	Date of Board Meeting: September 26, 2019
Subject: Type A Water Licence	

1. Purpose

The purpose of this Report is to present to the Mackenzie Valley Land and Water Board (MVLWB/the Board):

- a) Type A Water Licence (MV2019L1-0001) submitted by Northwest Territories Power Corporation (NTPC) Jackfish Power Generating Facility;
- b) Consider the Engagement Plan;
- c) Consider the Waste Management Plan; and
- d) Consider the Spill Contingency Plan.

2. Background

- January 1, 1995 – Effective date of Licence N1L1-1632;
- February 26, 2019 – Application received;
- March 4, 2019 – Application deemed complete and review commenced;
- March 18, 2019 – Reviewer comments and recommendations due and received on the draft workplan;
- April 2, 2019 – Reviewer comments and recommendations due and received on the Application/Plans/Preliminary screening;
- April 15, 2019 – Responses due and received;
- May 1, 2019 – Preliminary Screening decision made by the Board;
- May 2-3, 2019 – Technical Session held;
- May 3, 2019 – Distribution of Information Requests;
- May 16, 2019 – Due date for Information Requests;
- May 28, 2019 – Prehearing conference held;
- June 11, 2019 – Deadline for interventions;
- June 19, 2019 – Proponent responses to interventions;
- July 22, 2019 – Cancellation of the Public Hearing and circulation of updated work plan (version 2);
- July 23, 2019 – Circulation of the draft conditions;
- August 13, 2019 – Comments due on draft conditions;

- August 30, 2019 – Responses due on draft conditions;
- **September 26, 2019 – Presented to the Board for decision; and**
- December 31, 2019 – Expiration of Licence N1L1-1631.

3. Discussion

Project History

NTPC received Licence (N1L1-1631) which had an effective date of January 1, 1995 for the use of water for the cooling of the diesel power generating plants located on the shore of Jackfish Lake, NT. The Licence allows for the use of water up to 50,000m³/day.

On February 26, 2019, NTPC submitted an application for a Type A water licence to replace the current Licence.

The Jackfish Facility is a stand-by plant for the North Slave System (Yellowknife, Ndilo and Dettah). Diesel generating units at Jackfish Lake are only utilized for the following conditions:

- Instantaneous loss of hydro supply (outage);
- Shortage of hydro generating capacity (use exceeds the generating capacity of the hydro units); and
- Diminished hydro supply (low water flows).

There are three separate power generating plants on the shore of Jackfish Lake:

- Cat Plant (built in 1993);
- EMD Plant (built in 1974); and
- K Plant (built in 1969).

Each of the plants have separate intake lines and “discharge” lines. The water that is taken from Jackfish Lake is returned to Jackfish Lake through a closed-circuit system. When the water is taken into the diesel generating plants, there are no additives added to the water. The only change that happens to the water is an increase in temperature.

With the application, NTPC submitted a 2018 Discharge Quality Report which outlined the sampling that was done on the water going into the various plants as well as the water being “discharged”. The sampling results showed an increase in total metals (aluminum, copper, iron, lead and zinc). However, there was only one sampling event and the results came from the discharge from the K Plant.

NTPC has a land reserve with GNWT-Lands which was issued in 2005. NTPC has indicated that they are seeking longer term land tenure with GNWT-Lands.

Management Plans

A Waste Management Plan and Spill Contingency Plan were included with the Application. Board staff suggest that these Plans meet applicable guidelines and sufficiently reflect the scope of the proposed activities.

Engagement

An Engagement Record and Engagement Plan were included in the Application. NTPC noted they engaged with the following parties:

- Akaitcho IMA Implementation Office
- City of Yellowknife

- Dene Nation
- Deninu Kue First Nation
- Fort Resolution Metis Council
- K'atlodeeche First Nation
- Lutsel K'e Dene First Nation
- North Slave Metis Alliance
- Northwest Territories Metis Nation
- Salt River First Nation
- Smith's Landing First Nation
- Tlicho Lands Protection Department
- West Point First Nation
- Yellowknives Dene First Nation

NTPC initiated engagement with the above noted organizations on November 9, 2018, which included a summary of the application as well as the history of the operation. NTPC reached out to the organizations again on various dates ranging from November 13, 2018 to February 8, 2019 to inquire if there were any comments or concerns.

NTPC contact efforts included emails, phone calls as well as an open house meeting.

Board staff suggest that this Plan meets applicable guidelines and sufficiently reflect the scope of the proposed activities.

Type of Area

This Project is located in a non-federal area.

Fees

On May 4, 1988, NTPC was witnessed as a crown corporation when the Northern Canada Power Commission was acquired from Her Majesty the Queen in Right of Canada by the Government of the Northwest Territories. As a Crown Corporation, NTPC is exempt from paying security depositions or fees in relation to its hydro facility (attached).

4. Comments

Triggers

Under Annex D of the Waters Regulation the description of an industrial activity other than mining and milling, including manufacturing processes, hydrostatic testing, fluming, and exploration for and production and transportation of oil and gas, cooling systems, food processing, tanneries, smelters, sawmills, pulp mills, metal finishing, and tailings reprocessing. NTPC falls under the industrial undertaking as the water is being used for the cooling of the power generating plants.

Under Annex D, of the Waters Regulations NTPC requires a licence for the use of water over 300m³ as well as the use of water for the cooling system.

Term

NTPC has applied for a term of 20 years as the operating conditions have not changed and are not expected to deviate from the current values. NPTC also indicated that they are requesting the 20 years to help keep electricity rates as low as possibly for customers by minimizing frequent regulatory costs.

During the Technical Session, the GNWT – ENR Inspector asked why NTPC had only requested a term of 20 years when other facilities in Yellowknife such as the Yellowknife Airport have a water licence which has a term of 25 years. NTPC indicated that they are not in objection to extending the term of the licence to 25 years instead of the requested 20.

Section 26(2) of the *Waters Act*/subsection 72(2) of the MVRMA allows for license to be issued for the life of project.

Timing

The existing Licence (N1L1-1632) will expire December 31, 2019. Under subsection 72.18(1) and (4) of the MVRMA the Minister has up to 90 days to consider a Board's decision for a Type A proceeding. There are 97 days remaining between the date of the Board Meeting (September 26, 2019) and the expiration date of the existing authorization.

The Board is well within the nine month timeline allotted to process a Type A licence application as per subsection 72.18(1) of the MVRMA

5. Public Review

By April 2, 2019, comments and recommendations on the Application were received from 4 reviewers:

- Environment and Climate Change Canada;
- Fisheries and Oceans Canada;
- GNWT – Environment and Natural Resources; and
- MVWLB staff.

NTPC responded by April 16, 2019. The Review Summary and Attachments (attached) presents the concerns identified through this review.

Main Issues Raised during the Review

The following summarizes the main issues raised during the review:

- Water Quality Management;
- Aquatic Effects Monitoring and General Monitoring;
- Water Source and Water Quantity; and
- Term

On May 1, 2019, the Board conducted a Preliminary Screening.

A Technical Session was held on May 2, 2019, to discuss the project and see further clarification on the responses provided by NTPC, as per the topics listed above (document attached). During the Technical Session there were information requests that were noted and distributed on May 2, 2019 (attached) with NTPC responses being submitted on May 16, 2019 (attached).

On May 23, 2019, Board staff held a Pre-Hearing Conference to assist with administrative details of the public hearing.

On June 19, 2019, interventions were submitted by the Interveners (attached). The interventions did not require NTPC to respond as the interventions indicated that all the concerns that were brought forward in the initial review of the application have been addressed through the response submitted by NTPC as well as the Information Request responses submitted by NTPC after the Technical Session.

On July 22, 2019, the Public Hearing was cancelled as there was no notice provided by Interveners who want to present to the Board. A cancellation notice and ad were distributed to all parties and also posted in the newspaper (attached). With the notice of cancellation an updated work plan (attached) was also distributed.

On July 23, 2019, Board staff distributed a draft Water Licence on the Online Review System to solicit comments and further recommendations on the wording of specific conditions.

On August 13, 2019, Comments on the draft Water Licence were submitted by reviewers (attached) with responses submitted by MNML on August 30, 2019 (attached).

6. Security

Security is not applicable to this Project as per section 94 of the *Mackenzie Valley Resource Management Act* (MVRMA) because the territorial government is not required to post security pursuant to section 71 of the MVRMA.

Please see above Section 3 - Fees for further explanation.

7. Conclusion

The draft Water Licence (attached) has been prepared for the Board's consideration. It reflects the evidence submitted throughout the regulatory process; reviewer comments and recommendations, NTPC's responses, Board staff recommendations; existing authorizations (N1L1-1631); and includes updates to be more consistent with recently issued licenses. The conditions contained within this draft should mitigate the potential environmental impacts this development may have on the land and water.

8. Recommendation

Board staff recommend that the Board:

- a) Make a motion to **forward the Board's recommendation for approval of Type A Water Licence MV2019L1-0001** submitted by Northwest Territories Power Corporation, **with a term of twenty-five years, to the Responsible Minister for approval**;
- b) Make a **motion to approve the associated Reasons for Decision** for Type A Water Licence MV2019L1-0001 (subject to final review by Board Chair);
- c) Make a **motion to approve the Engagement Plan** as submitted for Type A Water Licence MV2019L1-0001;
- d) Make a **motion to approve the Waste Management Plan** as submitted for Type A Water Licence MV2019L1-0001; and
- e) Make a **motion to approve the Spill Contingency Plan** as submitted for Type A Water Licence MV2019L1-0001.

9. Attachments

Water Licence Application

- [Application](#)
- [Waste Management Plan](#)
- [Engagement Plan](#)
- [Engagement Log](#)
- [Spill Contingency Plan](#)
- [Conceptual Abandonment and Restoration Plan](#)
- [Figure 1](#)
- [News Paper Ad – Application receipt](#)
- [Review Summary and Attachments](#)

Technical Session

- [Agenda](#)
- [NTPC – Presentation](#)
- [Technical Session Transcripts](#)
- [Sign-in Sheet](#)
- [Information Requests](#)
- [Response to Information Request](#)

[Pre-Hearing Conference Summary Notes](#)

[Pre-Hearing Conference Sign in Sheet](#)

Public Hearing

- [Notice of Public Hearing for Newspaper](#)

Interventions

- [GNWT – ENR – Intervention](#)
- [ECCC – Intervention](#)

- [Cancellation of Public Hearing Notice](#)
- [Cancellation of Public Hearing Notice for Newspaper](#)
- [Updated Workplan version 2](#)

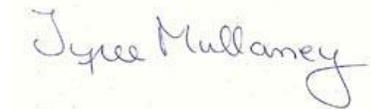
Comments and Responses on draft Water Licence

- [ECCC – Comments on draft Water Licence](#)
- [GNWT – Comments on draft Water Licence](#)
- [Comment Summary Table with NTPC responses](#)

Water Licence

- Draft Water Licence Cover Page
- Draft Water Licence Conditions
- Draft General Procedures
- Draft Water Licence Recommendation Letter to the Minister
- Draft Notification Letter of Water Licence to the Minister
- Draft Reasons for Decision
- Draft Decision Letter from the Board

Respectfully submitted,



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