



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: March 21, 2019	Date of Board Meeting: April 4, 2019
Subject: Work Plan	

1. Purpose

The purpose of this Report is to present to the Mackenzie Valley Land and Water Board (MVLWB/the Board) the draft work plan for Northwest Territories Power Corporation (NTPC) Type A Water Licence (MV2019L1-0001) proceeding relating to the Jackfish Power Generating Plant.

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 on the draft work plan due and received;
- **April 4, 2019 – draft Work Plan presented to the Board; and**
- December 31, 2019 – Expiration of Licence N1L1-1631.

3. Discussion

Project History

NTPC received a 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 in excess of 50,000 m³/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 Power System (Yellowknife, Behchokq, 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)
- K Plant (built in 1969)

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

NTPC will be installing new generating plants in the next few months. The installation of the new plants will not remove the requirement of water for cooling.

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 from the discharge pipes and the results came from the discharge from the CAT and K discharge.

4. Comments

Board staff have reviewed work plans for other concurrent proceedings and there are no conflicting dates.

5. Public Review

By March 18, 2019, comments and recommendations on the draft work plan were received from GNWT-Environment and Natural Resources (central email) indicating that they had no concerns with the draft work plan as distributed.

NTPC did not provide any comments or recommendations for the draft work plan.

6. Security

Not applicable

7. Conclusion

Not applicable

8. Recommendation

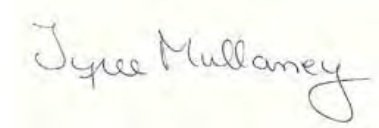
Board staff request the Board consider accepting the draft work plan as submitted by Board staff.

9. Attachments

- Draft Work plan
- Presentation
- [Application](#)

- [Waste Management Plan](#)
- [Engagement Plan](#)
- [Engagement Log](#)
- [Spill Contingency Plan](#)
- [Conceptual Abandonment and Restoration Plan](#)
- [Figure 1](#)
- [News Paper Ad – Application receipt](#)
- [Comments from GNWT-Environment and Natural Resources – No Comments on draft work plan](#)

Respectfully submitted,

A handwritten signature in black ink on a light yellow background. The signature reads "Tyree Mullaney" in a cursive script.

Tyree Mullaney
Regulatory Specialist