



NNC File No. SAN-PMT-RP-020
NIRB File No.: 22XN052
NPC File No.: 149782
Water Licence No: 8BW-ANU

Robert Hunter, Licensing Administrator
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU Canada
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June 23, 2023

Re: Opportunity to Address Comments Received Regarding Nunavut Water Board Type "B" Application by NNC for the Anuriqjuak Nukkiksautiit Project.

To Whom It May Concern,

Thank you for your correspondence of June 9th, 2023 in which NNC was given the opportunity to address the two sets of comments received to our application for a Type "B" Water License, File # 8BW-ANU.

As noted, the NWB received comments from the following interested parties:

- Crown Indigenous Relations and Northern Affairs Canada (CIRNAC)
 - Environment and Climate Change Canada (ECCC)

The attached tables provide specific responses to each of the recommendations received from CIRNAC and ECCC. NNC would be happy to meet with any of the concerned parties if it would be helpful in resolving any remaining concerns.

Sincerely,

HShultz

Heather Shilton
Director
Nunavut Nukkiksautiit Corporation
P.O. Box 1228
Iqaluit, NU Canada
X0A 0H0

Response to Regulatory Comments from NWB
 Type "B" Application by NNC for the Anuriqjuak Nukkiksautit Project

ECCC Review Comments

Contact: Stephinie Mallon, Environmental Assessment Officer

Stephinie.Mallon@ec.gc.ca

#	Category	Reference(s)	Comment	ECCC Recommendation	Proponent Response
E1	Spill Response	Section 5.2.2 Spill Kit Contents, <i>Anuriqjuak Nukkiksautit Project: Spill Prevention & Response Plan</i>	In Section 5.2.2 of the Spill Prevention & Response Plan, it is indicated that the spill kit will contain 4 Tyvek splash suits and 4 pairs of chemical gloves. From the information presented, is unclear for how many persons the kit is meant for, and if there are additional suits and gloves on hand should the spill response require more manpower. Furthermore, it is unclear if the splash suits are flame retardant.	Given that a response to a fuel spill is included in the plan, it is recommended that the Tyvek splash suits be flame-retardant. It is further recommended that the spill kits contain additional splash suits and gloves in case more manpower is required for the response, and in case of damage.	Updated section 5.2.2 of the SPRP to address the ECCC recommendation.
E2	Acid Rock Drainage and Metal Leaching	Section 2.6.1 Access Road/Laydown Areas Construction, <i>Biophysical Impact Assessment, High Displacement Renewable Energy Project, Final Report, Sanikiuaq, NU, Project # TAV1989301</i>	Based on the information provided in the plan, it is unclear if the prospective borrow material and gravel has been tested to confirm these materials will be non-acid generating and non-metal leaching. Road construction materials should be tested and screened for heavy metals and acid rock drainage potential during borrow source selection.	ECCC recommends conducting geochemical testing on potential borrow sources and using the results to screen for metal leaching and acid rock drainage (ML/ARD) potential. Ensure the materials used for road and instream construction will not be susceptible to acid rock drainage or metal leaching.	The planned Construction and Operation activities pose minimal potential for Acid Rock Drainage or metals leaching (ARD/ML). The main source of excavated rock will be the existing quarry operated by the Hamlet, a location that, to our knowledge does not have any history of producing ARD/ML. Nevertheless, NNC will review the geochemistry of the native rock.

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E3	Erosion and Sediment Control	<ul style="list-style-type: none"> Section 9. Description of Undertaking, General Water Licence Application, Anuriqjuak Nukkiksautit Project Table 6-1 Summary of Construction Phase Environmental Impacts, Mitigation Measures and Residual Effects, Biophysical Impact Assessment, High Displacement Renewable Energy Project, Final Report, Sanikiuaq, NU, Project # TAV1989301 Section 9.3 Additional Monitoring Plans, Anuriqjuak Nukkiksautit Project, Project Proposal, Document Number SAN-PMT-RP-020 Section 4. Public Comments and Concerns, Screening Decision Report, NIRB File No. 22XN052 	<p>The proposed project involves construction of an access road by upgrading and extending an existing trail, and constructing three culvert watercourse crossings. Construction of a road and associated water crossings, have the potential to cause sedimentation in nearby waterbodies and changes to sediment quality. Therefore, it is important that appropriate erosion and sediment control (ESC) measures be identified prior to initiating construction. The effectiveness of ESC measures should be monitored regularly during construction and appropriate response actions guided by an ESC response framework.</p>	<p>ECCC provides the following recommendations regarding ESC to be incorporated into the impending Environmental Protection Plan:</p> <ul style="list-style-type: none"> (i) Apply appropriate ESC measures for road construction, instream construction, borrow sites and any other applicable locations. (ii) Monitor for potential signs of erosion and sedimentation and the effectiveness of ESC measures. (iii) Develop and implement an ESC Response Framework to identify and address potential signs of erosion and sedimentation and any concerns regarding ESC measures. (iv) Determine the details for ESC measures, monitoring, and ESC Response Framework prior to initiating construction. 	<p>ESC measures are proposed in Section 4.5 of the Environmental Protection Plan (EPP). Routine monitoring will be conducted during construction to identify areas of potential erosion and to implement appropriate mitigation measures. Progressive erosion and sediment control measures will be implemented as required.</p> <p>The EPP states that site inspections will be conducted by the Environmental/Wildlife Monitor before, during, and after any site disturbances related to construction activities occur at the site. The required frequency of site inspections during construction activities will be determined by NNC or designate and will depend on the duration and type of activity.</p> <p>There is an Environmental Site Inspection Checklist included in Appendix B of the EPP. Deficiencies identified during inspections will be addressed immediately.</p>

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E4	Water Quality Monitoring	<ul style="list-style-type: none"> Section 9.3 Additional Monitoring Plans, <i>Anuriqjuak Nukkiksautit Project, Project Proposal, Document Number SAN-PMT-RP-020</i> Section 4. Public Comments and Concerns, <i>Screening Decision Report, NIRB File No. 22XN052</i> 	<p>Section 9.3 details that a Monitoring and Management Plan for water quality will be developed as part of the Project Execution Plan. ECCC notes that water quality monitoring during instream construction typically involves the establishment of a site-specific total suspended solids (TSS)/turbidity regression curve to support the surrogate monitoring of TSS using field turbidity data. However, given the logistical challenges in establishing a site-specific regression curve at this remote location within a short construction window, a different approach may be needed. As an alternative, monitoring results could be compared against turbidity triggers rather than TSS triggers, as this will provide a real-time result and not rely on laboratory analysis. Monitoring details for instream construction should be determined prior to initiating construction.</p>	<p>ECCC provides the following water quality monitoring recommendations for instream construction, to be incorporated into the impending Environmental Protection Plan:</p> <ul style="list-style-type: none"> (i) Conduct water quality monitoring during instream construction using an upstream/downstream sampling approach that incorporates QA/QC measures and standard best practices. (ii) Supplement field turbidity measurements with periodic confirmatory TSS sample collection and laboratory analyses. (iii) Develop and implement a Water Quality Response Framework that includes thresholds for action and associated response actions to prevent adverse impacts on the aquatic environment. Compare monitoring results to framework thresholds and respond accordingly. (iv) Following completion of instream construction, conduct subsequent monitoring, as appropriate, to confirm stability and acceptable water quality. 	<p>A turbidity water quality monitoring plan was developed and included within the Environmental Protection Plan Section 6.5. Compliances thresholds were developed based on turbidity measurements downstream of instream works relative to background.</p>

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E5	ECCC Screening Comments	Section 4. Public Comments and Concerns, <i>Screening Decision Report, NIRB File No. 22XN052</i>	Section 4 of the NIRB Screening Decision Report details ECCC's comments in the original project screening. ECCC has been working with the Proponent and its representatives over the past few months, in efforts to resolve these comments. ECCC will continue to provide guidance and support to the Proponent and its representatives, in order to resolve the remainder of the outstanding comments detailed in the NIRB Screening Decision Report	N/A – for information only	N/A

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CIRNAC Review Comments

Contact: Christine Wilson, Industrial Coordinator

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(867) 975-4282

#	Category	Reference(s)	Comment	CIRNAC Recommendation	Proponent Response
C1	Lead Agency Contact information	<p>Table 1.1, page 2-3, of the Spill Prevention and Response Plan (SPRS) includes the following:</p> <p>CIRNAC Environment Division Environment Manager PO Box 2200 Iqaluit, NU X0A 0HO Tel: (867) 975-4549 nunavutenvironment@aandc-aadnc.gc.ca</p> <p>CIRNAC Water Resources Division Water Resources Manager PO Box 2200 Iqaluit, NU X0A 0HO Tel: (867) 975-4550 nunavutwaters@aandc-aadnc.gc.ca</p>	<p>The contact information found in this table should be updated to the following:</p> <p>CIRNAC Impact Assessment Manager PO Box 2200 Iqaluit, NU X0A 0HO Tel: (867) 975-4549 Felexce.Ngwa@rcaanc-cirnac.gc.ca</p> <p>CIRNAC Water Resources Division Manager PO Box 2200 Iqaluit, NU X0A 0HO Tel: (867) 975-4550 Andrew.Keim@rcaanc-cirnac.gc.ca</p> <p>In accordance with the Spills Working Group Agreement, Crown-Indigenous Relations and Northern Affairs Canada is the designated lead agency on spills which occur at facilities authorized by federal legislation. This means that if a spill occurs at any facility authorized by the <i>Nunavut Waters and Nunavut Surface Rights Tribunal Act</i> (e.g.: a water licence) CIRNAC would be the lead agency to consult.</p>	<p>(R-01) CIRNAC recommends that an addendum be submitted to the SPRP to include the correct contact for spills at facilities authorized by the water licence and include the main point of contact as CIRNAC's Field Operations, On-call Inspector contact telephone number (867) 975-4284 in all sections of this plan.</p>	<p>Updated the contacts in Table 1.1 "Distribution List" and updated the Appendix A Emergency Contact for CIRNAC to Field Operations, On-Call Inspector Telephone (867) 975-4284</p>

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C2	Drinking Water Source and Spills	Section 4.1.6 titled Surface Hydrology and Water Quality of the <i>Biophysical Impact Assessment High Displacement Renewable Energy Project</i> , states " <i>The Water Supply Facility draws freshwater from Sanikiluaq Lake to the south of the community. The proposed access road is located along a local watershed divide, primarily on exposed bedrock, which drains northeast to Sanikiluaq Lake. The construction of the access road will not require blasting.</i> "	The Municipality of Sanikiluaq is located on an island in Hudson Bay. The community, as stated in the municipal water licence, has limited sources for drinking water. Measures should be taken to protect the watershed in an instant of a spill.	(R-02) CIRNAC recommends that the SPRP identifies and includes a plan for protection of waters which feed the Sanikiluaq Lake, from contamination if a spill occurs from this undertaking.	NNC has implemented a comprehensive SPRP that outlines the procedures to be followed in the event of a fuel or hazardous materials spill. Section 6.1 of the EPP includes a contingency plan for Fuels and Hazardous Materials Spills.
C3	Term of Licence	The Applicant has requested a licence term of 25 years and states in the water licence application " <i>the access road will become part of the municipal road system and not subject to closure or reclamation.</i> "	CIRNAC supports the requested 25-year water licence term.	(R-03) CIRNAC supports a 25-year term with the consideration that additional monitoring stations, sampling and analyses may be required by an Inspector and or the Board to achieve legislative objectives. CIRNAC recommends, prior to the licence cancellation/expiry, a plan for the administration/maintenance of this road should be submitted to the Board for approval to ensure the undertaking is properly licenced.	Since the access road will become part of the municipal road system, a plan will be made in conjunction with the NNC and the Hamlet of Sanikiluaq for the administration/maintenance of the road to be submitted to the Board prior to the license expiry or cancellation.

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C4	Surface Drainage	<p>Section 4.1.6 titled Surface Hydrology and Water Quality of the <i>Biophysical Impact Assessment High Displacement Renewable Energy Project</i> states “<i>The hydrology of Sanikiluaq is highly influenced by seasonal changes in the climate. The high spring freshet flow occurs in late May to June, as the cumulative snow and ice over the winter melts. Flows decrease as the summer progresses into July and August. The hamlet of Sanikiluaq uses trucked drinking water distribution and waste collection services (Hayward, 2020). The Water Supply Facility draws freshwater from Sanikiluaq Lake to the south of the community. The proposed access road is located along a local watershed divide, primarily on exposed bedrock, which drains northeast to Sanikiluaq Lake. The construction of the access road will not require blasting.</i>”</p>	<p>Protection of surface drainage should be placed as a priority to ensure the down stream users are not impacted.</p>	<p>(R-04) CIRNAC recommends that an Operation and Maintenance plan for the road should be submitted to the Board for approval. This plan should include maintenance inspections of the road and water crossings to ensure the protection of the natural drainage.</p>	<p>Details regarding maintenance inspections of the road and water crossings can be found in the EPP.</p> <p>Section 3.2.2 of the EPP mentions compliance monitoring via environmental site inspections throughout the lifetime of the project. Appendix B contains the Environmental Site Inspection Checklist.</p> <p>Section 4.5 mentions the inspections of erosion control measures for the road and Section 4.6 of the EPP mentions the annual inspections of water crossings.</p>

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C5	Decommissioning Phase	<p>Section 2.8 states of the Biophysical Impact Assessment High Displacement "Nearing the end of the 20-year operational life span of the turbines, decisions will be made regarding continuing operations of the wind park with new or refurbished turbines and/or other equipment or dismantling the operation and returning the site to its original condition using modern technologies to accomplish this objective.</p> <p><i>Decommissioning of the wind farm would require de-installation and removal of all physical components and machinery from the Site. The access roads would remain if the Hamlet so desired. The collector lines, power line and substation would be removed. The Transmission line will also be removed if it was no longer required for other purposes.</i></p> <p><i>Concrete turbine pads and building foundations will be removed to a reasonable depth and re-claimed unless the Hamlet wishes to use them as they are. The equipment used for the deconstruction would be essentially the same as for the construction (e.g., transport equipment, earth moving equipment and trucks to transport waste materials). Any areas disturbed by Project activities will be revegetated with a collection of native vegetation to prevent erosion.</i></p>	<p>The application package did not include an Abandonment and Reclamation plan.</p>	<p>(R-05) CIRNAC recommends that a conceptual Abandonment and Reclamation plan be developed and submitted to the Board for approval.</p>	<p>The Hamlet of Sanikiluaq supports the ownership takeover of the access road as indicated by a letter dated May 8, 2023. It will become part of the municipal road system and will not be subject to closure or reclamation.</p> <p>As indicated in the NIRB application, NNC will develop a suite of monitoring and management plans including Reclamation and Closure for the remaining project infrastructure.</p>