

New Thermal Generating Station in the Northern Village of Kangiqsujaq

Supplement to the Environmental and Social Impact Assessment Statement

Responses to questions and comments from the Ministère de
Environnement, de la Lutte contre les changements climatiques,
de la Faune et des Parcs du Québec

July 2024

New Thermal Generating Station in the Northern Village of Kangiqsujaq

Supplement to the Environmental and Social Impact Assessment Statement

Responses to questions and comments from the Ministère de l'Environnement, de la Lutte contre les changements climatiques, de la Faune et des Parcs du Québec

Hydro-Québec
July 2024

This document supplements the Environmental and Social Impact Assessment Statement, and provides replies to the comments from Québec's Ministère de l'Environnement, de la Lutte contre les changements climatiques, de la Faune et des Parcs as part of the impact assessment screening analysis for the project to build a new thermal generating station in the northern village of Kangiqsujuaq.

This is a translation of the original French text.

Foreword

This document contains responses to comments on the environmental impact assessment screening analysis submitted in September 2023 to Québec's Ministère de l'Environnement, de la Lutte contre les changements climatiques, de la Faune et des Parcs (MELCCFP).

To facilitate the analysis, we have kept the structure of the document *Questions et commentaires – Projet de construction d'une nouvelle centrale thermique sur le territoire du village nordique de Kangiqsujuaq par Hydro-Québec* (file no. 3215-10-017). We have also kept the wording of the questions and comments received, each followed by the requested answer, correction or explanation.¹

¹ Please note that all page numbers are those from the French version of the document.

Table of contents

2	Project context and detailed description	1
2.4	Related project	1
■	QC-1	1
3	Public Participation.....	4
3.3	Information and consultation activities carried out.....	4
■	QC-2	4
■	QC-3	5
■	QC-4	5
■	QC-5	5
■	QC-6	5
4	Project description:	6
4.2.9	Operations phase	6
■	QC-7	6
4.3.2	Borrow pit preparation	7
■	QC-8	7
4.3.5	Dismantling of the existing generating station.....	8
■	QC-9	8
■	QC-10	8
4.4	Residual hazardous materials.....	9
■	QC-11	9
■	QC-12	10
6	Impact analysis and mitigation measures	11
6.8	Impacts on the human environment and mitigation measures	11
6.8.2	Greenhouse gases and climate change	11
■	QC-13	11
6.8.7	Health, safety and quality of life	12
■	QC-14	12
8	Technological accident risk management.....	14
8.1.10	Identification of potential accidental events.....	14
■	QC-15	14
8.3	Operation phase emergency response plan	14
■	QC-16	15
	Appendix F	16
■	QC-17 – Phase 1 site characterization studies.....	16
	Appendix J.....	16
■	QC-18 – Atmospheric dispersion studies	17

Appendix

A (QC-1) Amended Map 5-2 in Volume 1 of the impact statement

B (QC-2) Resolution 2020-13

C (QC-3) Resolution 2021-23

D (QC-4) Resolution 2022-29

E (QC-5) Resolution 2022-49

F (QC-8) Map A Biophysical and human environment – Extended study area

G (QC-8) Map of borrow pits

H (QC-11) Puvirnituq generating station

I (QC-12) Resolution 2023-02 and NLS management

J (QC-18) Technical note – Atmospheric dispersion – OLM method

K (QC-18) Proposed master plan (confidential)– (under separate cover))

L (QC-18) Municipality's resolution 2024-12

2 Project context and detailed description

2.4 Related project

In Section 2.4 (Volume 1, page 2-5 of the impact statement), the proponent refers to construction of the generating station access road as a related project that is not specifically mentioned in Schedules A or B of the *Environmental Quality Act* and that it will obtain attestations of exemption and all government approvals required to deliver the station and road in a timely manner.

■ QC-1

The proponent must provide an overview of the access road construction project and identify its potential environmental and social impacts. The proponent must also explain why it did not include the access road project in the generating station project.

Réponse

Access road construction projects are not mentioned in Schedules A and B of the *Environmental Quality Act*. As a result, the access road construction project in question is not necessarily subject to or exempt from the environmental and social impact assessment and review procedure. It is therefore a “grey zone” project. Since its environmental and social impacts are not significant, we have filed an application for exemption which is being reviewed by the Kativik Environmental Quality Commission (KEQC). In addition, exemption of the road project will allow us to build the road before work begins on the generating station so that we can supply energy to the community on time.

The project covered by the impact statement calls for the construction of an access road between the site of the new Kangiqsujuaq generating station, which will be commissioned in early 2028, and an access road about 100 m long, currently under construction, on the Kativik garage-warehouse site. Part of the road linking the existing road system will also be used by Kativik.

Following modifications to reduce the road’s slope for health and safety reasons, the road will be approximately 230 m long, with a road surface averaging 7 m wide. The right of way (including shoulders) will be 8.8 m wide. These amendments form part of the application for exemption submitted to MELCCFP (see amended map 5-2 in Volume 1, Appendix A of the impact statement).

The road’s construction will require grading. The infrastructure will comprise a 300-mm-thick top coat of compacted 20-0 aggregate, placed on a compacted layer of non-frost-susceptible 112-0 aggregate backfill at least 600 mm thick. The infrastructure will be protected by a roughly 300-mm thick layer of 100–200-mm riprap. Geotextile will be

placed between the riprap and the natural ground. Construction of the access road will require roughly 2,000 m³ of granular material and 600 m³ of riprap.

To ensure user safety, 145 m of guardrails will be installed at the curves and edge of the access road. A culvert will be strategically laid to channel runoff from the other side of the access road to the existing receiving environment, consisting of shrub tundra.

To answer the other part of the question (regarding inclusion of the access road project in the generating station project), the impacts and mitigation measures related to the portion of the access road addressed in Section 4.3 (related developments and projects) of Volume 1 of the impact statement are described below.

Impacts on the physical environment and mitigation measures (soil and surface water)

Construction period

The main impacts of access road construction are related to the development of a surface area of 3,560 m² (road surface and embankment). The types of land affected by this development are shown in Table QC-1.

Table QC-1: Surface areas by type of land affected by access road development

Infrastructure	Environment Type	Area (m ²)
Access road	Shrub tundra	3 560
	Wetland	0
	Watercourse	0
Total		3 560

Earthwork and blasting done during access road construction could alter the surface soil composition and profile. Machinery transport and traffic during access road construction are likely to alter surface water quality by adding sediment and stirring it up (resulting in suspended solids) and may contaminate the water in the event of accidental petroleum product spills. Inadequate management of construction waste is also likely to worsen water quality.

The addition of suspended solids in the nearest aquatic environment (CE03) during excavation and earthwork could occur as a result of the erosion of soil left bare. Machinery traffic and use could also locally alter drainage, increase erosion and lead to an increase in suspended solids in the aquatic environment.

Construction work will have little impact on local drainage given the configuration of the site during the work, the presence of a gentle slope down from the worksite and the type of soil.

General mitigation measures

Mitigation measures in Hydro-Québec's Standard Environmental Clauses (SECs) will significantly reduce the impact on soils, surface water quality and drainage during construction.

The contractor will apply the following SECs:

- Clause 6 – Accidental contaminant spills
- Clause 7 – Drainage
- Clause 9 – Wastewater
- Clause 10 – Excavation and earthwork
- Clause 15 – Plant and traffic
- Clause 17 – Waste materials
- Clause 21 – Site restoration
- Clause 23 – Blasting

Operation phase

During the operations phase, use of the access road will slightly alter natural surface water drainage. Water will flow over the natural terrain (depending on the topography) into a drainage ditch that will take the water away so that it does not pool near the access road. A culvert will be laid to channel runoff from the other side of the access road to the existing receiving environment, consisting of shrub tundra.

Résiduel impact

During construction, the ground will be altered to accommodate the access road. Minor changes will be made to site drainage around the generating station during construction and operations. Given the general and specific mitigation measures to be implemented for the construction and operations phases, the risks of soil contamination and addition of sediment to sensitive areas are low. The impact will be limited to a small surface area so it will be low-intensity and of limited scope. It will last a long time because the access road will be used for the entire 50-year period during which the generating station will be in operation. The significance of the residual impact on soil and surface water quality is therefore minor.

Impacts on the biological environment and mitigation measures

No impact is expected on the biological environment during construction or operations. The access road will be located away from wetlands, aquatic environments and any sensitive wildlife habitat.

Impacts on the human environment and mitigation measures

Access road construction will have an impact on transportation and traffic, land use, quality of life and archaeology.

Construction period

During construction, anticipated impacts on transportation and traffic, land use, and residents' quality of life will be the same as those outlined in Sections 6.8.4 to 6.8.7. The same general and specific mitigation measures will also be implemented. The location of the borrow pit or quarry to be used for the work has been selected (see Appendix A and G). Anticipated impacts outlined in Section 6.8.4 will be low for the infrastructure and services component. The quarry site and its access road are located outside the municipality. Therefore, there will be no traffic in areas inhabited or occupied by the community. In terms of archaeology, the access road (like the generating station) is in an area of high archaeological potential that was surveyed in 2022. However, no archaeological remains have been found in this area (see Volume 1, Section 6.8.8 of the impact statement).

Operatoin phase

No major impacts are foreseen during the operations phase. Two local employees will use the access road to perform maintenance on the generating station and service vehicles (potable water distribution, wastewater collection, waste collection and diesel delivery).

Finally, since summers are relatively short in Nunavik, which limits time available for earthwork, Hydro-Québec wishes (with the wording of its application for exemption) to start the generating station project by building the access road. This would enable us to meet the master project schedule.

3 Public Participation

3.3 Information and consultation activities carried out

■ QC-2

In Section 3.3.1 (Volume 1, page 3-2 of the impact statement), the proponent refers to the adoption of resolution 2020-13 by the Kangiqsujuaq municipal council. The proponent must provide this resolution.

Réponse

Resolution 2020-13 can be found in Appendix B.

■ QC-3

In Section 3.3.2 (Volume 1, page 3-2 of the impact statement), the proponent refers to the adoption of Resolution 2021-23 by the Kangiqsujaq municipal council. The proponent must provide this resolution.

Réponse

Resolution 2021-23 can be found in Appendix C.

■ QC-4

In Section 3.3.4 (Volume 1, page 3-3 of the impact statement), the proponent summarized the meeting with representatives of the Kangiqsujaq municipal council and the Nunaturlik Landholding Corporation regarding the recommended site and the results of an analysis of potential sites. The proponent must provide the minutes of this meeting and state whether it has obtained any new information on this topic since the impact study was filed.

Réponse

Resolution 2022-29 can be found in Appendix D.

■ QC-5

In Section 3.3.5 (Volume 1, page 3-3 of the impact statement), the proponent refers to the adoption of Resolution 2022-29 by the Kangiqsujaq municipal council and Resolution 2022-49 by the Nunaturlik Landholding Corporation. The proponent must provide these resolutions.

Réponse

Resolution 2022-49 can be found in Appendix E.

■ QC-6

In Section 3.3.6 (Volume 1, page 3-3 of the impact statement), the proponent states that it held an information and consultation session on November 9, 2022, on the local Kangiqsujaq radio station and that updated project information was provided to listeners. Some residents asked for physical barriers around the site to keep the public safe during construction. The proponent must state whether such barriers will be erected during construction and, if not, its reasons for not doing so.

Réponse

Since the work will be performed approximately 15 m above and more than 100 m away from the existing road, the construction site will not be entirely fenced off. However, sediment barriers will be installed over a large perimeter to delineate the work area and keep sediment from escaping the site.

Depending on the work, physical boundaries (e.g., stakes with visible tape, rope, etc.) could be erected around worksite areas to prevent people who use the area from getting too close to them. Finally, road signs that meet current Ministry of Transportation (MTQ) standards will be set up on the existing road at site access points.

4 Project description:

4.2.9 Operations phase

In Section 4.2.9 (Volume 1, pages 4-16 of the impact statement), the proponent states that it is working with partners on a wind power project at the same time as the new generating station construction project. It also states that the Kangiqsujuaq power system will be entirely powered by the new thermal power plant, which will then be gradually operated in diesel-wind-battery mode.

■ QC-7

The proponent must specify whether it is the designated proponent for the wind project, which could be considered phase 2 of this project, or whether the wind project will be carried out in collaboration with its partners and would be considered a new project that requires reassessment.

Réponse

The wind project mentioned in the impact statement is considered a separate project being carried out by the proponent's partner. It is not Phase 2 of the generating station project. Hydro-Québec wants to decarbonize its power systems by using other energy sources. To make progress on this front in Nunavik, it has partnered with the Inuit joint venture Les Énergies Tarquti to develop renewable energy projects.

As the proponent of the wind project, Tarquti will own the wind farm and access roads. It will also conduct its own environmental assessments and authorization processes with the MELCCFP, as appropriate.

Under this partnership, renewable energy assets will be owned and operated by Tarquti, while Hydro-Québec will purchase energy and integrate these assets into the system.

4.3.2 Borrow pit preparation

Section 4.3.2 (Volume 1, page 4-20 of the impact statement) states that the location of borrow pits has not yet been determined. However, there is little granular material available in Kangiqsujuaq and much of the supply is already used by the village.

■ QC-8

The proponent must locate and map all existing and planned operations (borrow pits, sandpit, quarry) for the project, specifying their proximity to roads, watercourses and planned protected areas to take into account local regulations, features and opportunities. The proponent must assess the surface areas and volumes required and, if necessary, submit survey reports that describe the stratigraphy and provide the particle size curves. The proponent must explain how the assessment of required borrow materials was optimized. Finally, an overview of site redevelopment and decommissioning measures must also be provided.

Réponse

Different potential borrow pits are available in Kangiqsujuaq. Most existing and planned operations (borrow pits, sandpit, quarry) are illustrated in Volume 3, Appendix N of the impact statement (see map in Appendix F).

However, as detailed in Volume 1, Sections 4.3.2 and 6.6.1, of the impact statement, the supply of granular materials for the project is tendered and a supplier is selected by Hydro-Québec. To carry out the work under the contract based on its procurement strategy, the supplier is responsible for taking the necessary steps to obtain authorizations to operate borrow pits and quarries. Hydro-Québec has already selected the supplier for the generating station project. This supplier is currently in the process of obtaining the certificate of authorization to operate the chosen source, which is the quarry owned by the Kangiqsujuaq Landholding Corporation (see map in Appendix G). The quarry is not listed on the map in Appendix N of the impact statement. The terms and conditions of operation and closure may be provided, where appropriate, once authorizations have been obtained.

The quarry is approximately 5.5 km from the future generating station. The access road to the quarry is located outside the village, and at no time during the generating station project will trucks drive through the village. This will reduce transportation and noise impacts identified in Volume 1, Sections 6.6.1, 6.8.3, 6.8.4, 6.8.5 and 6.8.7 of the impact statement.

Hydro-Québec's supplier will use materials extracted from the quarry for the project. At no time will the supplier use materials intended for the municipality or the landholding corporation.

Information about the chosen source, including the certificate of authorization, may be provided to the Ministère during the application for ministerial authorization or once the contractor has received the authorizations. The chosen site already has an access road.

For the civil engineering works, we estimate the required volume of new granular borrow materials at about 9,430 m³. During the detailed engineering phase, we performed optimization work to minimize the need for borrowed granular materials while taking design engineering requirements into account. In addition, the elevation of the generating station's courtyard platform was determined (using Civil 3D software) to optimize reuse of excavated material in the areas to be backfilled below the site infrastructure line. We estimate that approximately 6,340 m³ of excavated material can be reused at the site for backfill. In summary, the total amount of backfill required to complete the new generating station is approximately 15,770 m³.

4.3.5 Dismantling of the existing generating station

■ QC-9

In Section 4.3.5 (Volume 1, page 4-20 of the impact statement), the proponent states that the dismantling of the existing generating station and site rehabilitation are planned for after the new station is commissioned in 2028. The proponent should note that it is expected that a request for attestation of exemption will be filed for this purpose.

Réponse

Hydro-Québec has taken note. The request for attestation of exemption upon termination of activities and site rehabilitation will be filed at an appropriate time after the new generating station has been commissioned. The dismantling of the existing station will therefore be a separate project.

■ QC-10

When a thermal generating station was dismantled in another northern village, the proponent offered the community some buildings for reuse instead of destroying them. The proponent must indicate whether it intends to do the same thing for this project.

Réponse

The dismantling of the existing station will be a separate project. As with all projects, Hydro-Québec will hold talks with the community to oversee the station's closure and dismantling and the rehabilitation and transfer of the land and buildings, if required.

Once the environmental soil characterization (Phase 2) step of the process to cease activities is complete, we will be in a position to know what, if any, effort is required to remediate the land.

In addition to this process, Hydro-Québec will assess the condition of the buildings and works it owns to determine the effort required to rehabilitate the site (e.g., decontaminating soil underneath buildings, dismantling a building for soil remediation, etc.), the future use or zoning of the land, and the buildings the village wishes to use.

Hydro-Québec will discuss the transfer of desired assets and environmental liabilities (if any) with the municipality.

4.4 Residual hazardous materials

■ QC-11

In Section 4.4 (Volume 1, pages 4-21 to 4-23 of the impact statement), the proponent outlines how hazardous waste will be managed during construction and operations. The proponent must submit a hazardous waste management plan that includes a list of all materials generated during the project's operations phase (e.g., metals, plastics, electronics), storage conditions for these materials, a list of disposal sites and the transportation route (including the distance to be travelled and the number of trucks per week). This hazardous waste management plan must also include an estimate of the quantities of materials generated during the operations phase as well as a description of measures implemented to meet the 4Rs principle, if applicable.

Réponse

During the operation phase:

- Residual non-hazardous materials

Residual non-hazardous materials produced during generating station operations will be managed in the same manner as they are at the existing station, which generates approximately one bag of garbage (less than 75 litres) per week. Some of the most commonly produced residual non-hazardous materials in these workplaces include food waste, packaging materials, office accessories, printing paper, empty plastic water bottles and ink cartridges. Given the village's geographic isolation and the lack of a recycling program in the community of Kangiqsujuaq, Hydro-Québec took the initiative to ship certain materials south for recycling. Recyclable materials include printing paper, empty plastic water bottles and ink cartridges. Recyclables are collected by Hydro-Québec staff from our Québec City offices. Ink cartridges are currently being sent to the Mira Foundation for program funding. The rest of the material consists of domestic waste from activities such as facility maintenance and on-site meals. These materials, like those of other buildings in the village, are sent to the northern landfill site (NLS). Once the new generating station is commissioned and the existing station shuts down, rubbish collection at the existing station will cease.

The new generating station on Paurngatarvik Road is 4.6 km from the waste disposal site. This road is already used by the garbage truck that services the village and the existing station. The existing station is 6 km away from the disposal site, so the new station has the advantage of being closer, which is a significant logistical gain.

- Residual hazardous materials

The list and estimated quantities of residual hazardous materials (RHM) generated during the operations phase are described in Volume 1, Section 4.4.2 and Table 4-5 of the impact statement.

They are also to be found in Volume 2, Appendix E of the impact statement, along with the designation of disposal sites.

As with all Hydro-Québec thermal generating stations, a residual hazardous materials (RHM) area will be built in the new station in accordance with regulatory requirements for temporary on-site RHM storage. Two external containers (referred to as “hazardous material recovery containers”) will be set up at the site to store RHM, packaged and identified inside the station, to be shipped to Hydro-Québec’s recovery centre at 2600 rue De Celles in Québec City, then to an authorized final recipient (see list provided in Volume 2, Appendix E of the impact statement).

Containers are identified as containing hazardous materials (HM) or RHM, have rails to facilitate handling of palletized containers, and have double bottoms. Preliminary plans that show the layout of the station’s RHM area as well as an example of an outdoor container area (at the Puvirnituk station) can be found in Appendices H-1 to H-3.

As described in Volume 1, Section 4.4.2 of the impact statement, RHM containers will be shipped by boat to hazardous material recovery centres in the southern part of the province (Québec City) for storage until waste processing companies pick them up.

Hydro-Québec will inform the MELCCFP of disposal sites, quantities of materials, methods of storage and plans for the HM-RHM storage area related to form AM17b when it applies for authorization 22.

■ QC-12

In Section 4.4.1 (Volume 1, page 4-21 of the impact statement), the proponent indicated that an agreement could be reached with the northern village of Kangiqsujuaq for the disposal of construction waste at the northern landfill site (NLS) operated by Kangiqsujuaq. Waste generated during the operations phase will also be disposed of at this location, as is the case for the current generating station. The proponent must provide documentation confirming that the northern village of Kangiqsujuaq agrees to accept construction waste and residual materials while the station is in operation.

Réponse

The final selection of the construction waste disposal site has not yet been made. Once it is known, Hydro-Québec will make arrangements with the manager of the selected disposal site. The Kangiqsujuaq NLS is the top choice. Discussions are underway to obtain authorization to use it and to incur the costs associated with its use. Hydro-Québec will comply with the by-law applicable to the village of Kangiqsujuaq entitled *Northern village of Kangiqsujuaq by-law No. 2023-02 - Concerning the use of the municipal solid waste disposal site and the dumping of waste* or its latest version (see Appendix I). New measures implemented at the NLS, including the installation of a reception station and recording of loads, will be complied with.

With respect to use of the NLS during the operations phase, it is the municipality's responsibility to provide this service to the legal entities established there. Hydro-Québec will ask the village to send the municipal rubbish truck to collect waste from the new station instead of the existing station and send the waste to the NLS. In addition, Hydro-Québec wants to participate in the various waste management and recycling programs (both current and planned) for Kangiqsujuaq (see Appendix I).

6 Impact analysis and mitigation measures

6.8 Impacts on the human environment and mitigation measures

6.8.2 Greenhouse gases and climate change

In Section 6.8.2 (Volume 1, pages 6-23 to 6-34 of the impact statement), specific mitigation measures include the construction of a certain number of wind turbines. However, there are no plans to completely replace the energy supplied by the new thermal generating station with renewable energy, such as solar or wind, at the end of the station's useful life. A percentage reduction of about 52% is expected under the most optimistic scenario by 2077, while Québec's net zero target is set for 2050.

■ QC-13

The proponent should identify issues related to meeting Québec's 2050 net zero target and state how the current project strategy could be modified to address this gap. Finally, the proponent must include a plan to monitor GHG emissions during operations in its environmental monitoring program.

Réponse

Hydro-Québec seeks to integrate more renewable energy into its off-grid systems and this project fits perfectly with this objective as well as with Québec's net zero goals. However, the new thermal generating station (located at KAQ-2) is the only sufficiently reliable source for the off-grid system that supplies power to the region and cannot be replaced entirely by intermittent sources of energy such as solar and wind power. An off-grid system is one that is not connected to Hydro-Québec's main grid, often because it is in a remote location.

The project will upgrade equipment so as to integrate and increase the station's capacity to manage more renewable energy while keeping the system reliable and efficient. A future phase should greatly reduce the station's fuel consumption. As far as achieving net zero with this system, Hydro-Québec remains on the lookout for technological developments that will make this possible.

That said, Hydro-Québec wants to prepare its station by adapting it now for the arrival of such generation sources. That is why Hydro-Québec's new generating station will include a dedicated shelter for a future energy storage (battery) system that would enable the integration of wind energy. In addition, an area of the station's yard is already set aside for the connection point of a potential wind farm and related equipment.

Hydro-Québec will work with the proponent (Les Énergies Tarquti) to enable integration of the energy produced by a wind farm with its facilities to distribute electricity in the village.

In addition, Hydro-Québec has been tracking GHG emissions from all of its thermal generating stations for a number of years. This monitoring feeds into the company's carbon footprint, which it publishes every year in its *Sustainability Report*.

6.8.7 Health, safety and quality of life

In Section 6.8.7 (Volume 1, page 6-47 of the impact statement), given the potential social impacts of the presence of outside workers in the community during construction, the proponent will take measures to minimize potential impacts.

■ QC-14

The proponent should state how it will ensure that contractors and workers from outside the community are aware of local realities and apply the code of conduct. The proponent must also commit to ongoing dialogue with various stakeholders during the construction and operations phases in order to make any necessary adjustments to the project.

.

Réponse

Construction of the generating station will require approximately 19 to 30 workers, mostly from outside the village of Kangiqsujuaq. This presence will be spread out over a period of almost two and a half years. The presence of outside workers could lead to additional pressure on health services in the Kangiqsujuaq community, as well as negative social impacts, particularly regarding alcohol and drug use or smuggling.

However, the village of Kangiqsujuaq has a municipal by-law regarding the consumption and sale of alcohol that outside workers will be required to comply with while in Kangiqsujuaq. Their presence may also raise fears based on past negative experiences related to the presence of outside workers in the community (sexual abuse, physical or verbal abuse, etc.).

As specified in Section 6.8.4 (Infrastructure and services), the following specific mitigation measures will be used during construction:

- Inform the municipal council of the work schedule and the number of workers expected in the community.
- Establish a plan for transporting equipment and materials in collaboration with the municipal council.
- Ensure that signage is adequate (Inuit-friendly language and visual references) and that vehicles are clearly visible.
- If necessary, use signalers or a safety escort during maneuvers by trucks or oversize loads.
- Ensure that external contractors acquire and read the code of conduct.

In addition to the measures set out in Section 6.8.4, Hydro-Québec will:

- Include the location of the most sensitive areas in the transportation plan, such as schools, playgrounds and childcare services, as well as school attendance periods and routes taken by students
- Educate workers from outside the community about the issues related to their presence, provide them with a code of conduct and ensure that they read and abide by it
- Inform workers about the village of Inukjuak's alcohol by-laws
- Encourage workers to avoid alcohol or drug use during their construction stay
- Develop a protocol to follow in the event of a worker's worsening health problem or serious accident

8 Technological accident risk management

8.1.10 Identification of potential accidental events

■ QC-15

In Section 8.1.10 (Volume 1, page 8-10 of the impact statement), the proponent assessed the risk of watercourse and wetland contamination due to runoff from petroleum product spills or leaks, and proposed measures to manage such events. The proponent must also assess the potential of bedrock and groundwater contamination, taking local conditions such as the thickness of the permafrost layer into account. The proponent must also propose mitigation, monitoring and followup measures, as appropriate.

Réponse

Hydro-Québec confirmed that the risks of rock, groundwater and permafrost contamination are the same as those cited for watercourses and wetlands. Preventive or protective measures shown in Volume 1, Table 8-6 of the impact statement are to be used. Sections 6.6.1 (Soils – anticipated impacts and mitigation measures during operations) and 6.6.2 (Surface water – anticipated impacts and mitigation measures during operations) also discuss the risk of bedrock, groundwater and permafrost contamination.

In addition, there will be no permafrost under the thermal generating station since it will be built right on bedrock. This aspect has thus already been mitigated in the station's design.

In the event of an accidental spill that extends outside the plant enclosure, permafrost and bedrock would help keep contamination at the surface and limit deeper flow. This would facilitate the recovery of spilled liquid and contaminated surface soil.

Test pits revealed the presence of groundwater. If a large spill penetrates soil at the surface and reaches deeper layers of soil, groundwater could be contaminated. Safety measures and equipment intended to minimize risks in general will also help minimize risks to soil and groundwater.

Finally, should an accidental spill occur, the accidental spill emergency response plan would be executed to recover the contaminant.

8.3 Operation phase emergency response plan

In Section 8.3 (Volume 1, pages 8-18 and 8-19 of the impact statement), the proponent states that it will prepare an emergency response plan for use during operation of the generating station. These measures will be incorporated into the emergency plan already

in place for all Hydro-Québec off-grid thermal generating stations in Nunavik, which takes into account their location in small, isolated communities. In addition, the proponent provided a draft of these emergency measures. It states that the municipality and other public authorities that may be affected will be consulted and that the plan will be submitted to the MELCCFP before facilities are commissioned.

■ QC-16

The proponent must complete the emergency response plan, including the following measures:

- Align emergency response plans of the facility, the Kangiqsujuaq fire department and the Kativik Regional Government (fire prevention services, risk coverage schematics and civil security plan). Do the same for the transitional emergency response plan for the construction phase (hazardous materials and waste for the site).
- Inform the municipality of Kangiqsujuaq, the Kangiqsujuaq fire department and the Kativik Regional Government of any transshipments of old tanks and initial filling of new tanks. Do the same when old tanks are dismantled.
- Have fire departments tour completed facilities to familiarize external responders with the station's specific risk response procedures. Determine frequency of training/exercises.
- Include the COG (24/7), specifying that it is the Ministère de la Sécurité publique, in the list of external resources.
- Pay attention to the different perimeters surrounding the multi-unit dwelling that would be approximately 300 metres from the KAQ-2 site (Volume 1, page 4-5 of the impact statement).

Réponse

As specified in Volume 1, Section 8.3 of the impact statement, Hydro-Québec will prepare an emergency response plan for use during operation of the new Kangiqsujuaq generating station and file it with the MELCCFP before the facility is commissioned.

Hydro-Québec is committed to paying particular attention to integrating, in collaboration with affected stakeholders, measures proposed by the MELCCFP into the official version of the emergency plan, and to telling stakeholders of the implementation of the new plan.

The emergency response plan (construction phase) will take into account the recommendations made for the construction phase once the contractor forwards them before the site is opened. Hydro-Québec will file it with the MELCCFP before work begins.

Appendix F

According to the phase I site characterization report in Appendix F (Volume 2 of the impact statement), a former contractor's area and heliport, as well as a former dump site were identified on adjacent land north of the proposed thermal generating station site.

■ QC-17 – Phase 1 site characterization studies

The proponent must assess the risk of contamination due to activities that took place on adjacent land (e.g., airborne deposition from possible open-air waste burning or runoff). If the site is likely to have been contaminated, the proponent must conduct an environmental soil characterization using methods (number, location and depth of test pits) appropriate to the nature of the risk.

Réponse

The site in question is located more than 300 m from the site of the future generating station and at a lower (by about 25 m) elevation. This site has been completely modified following construction of a multi-unit dwelling by the Fédération des coopératives du Nouveau-Québec (FCNQ). (See Volume 1, page 4-5 of the impact statement report). Therefore, it cannot be characterized.

Finally, Appendix G of Volume 2 of the impact statement contains the Phase 2 environmental soil characterization report. This report is a followup to the Phase I environmental site assessment in Appendix F. Item 7 (conclusions and recommendations) of this report states that, based on results obtained during the summary environmental characterization of soils at the site of the future station, it appears that the soils are uncontaminated (A-level criterion in the MELCCFP *Guide d'intervention*) at the surveyed sites.

For these reasons, Hydro-Québec will not further investigate soil contamination or its history.

Appendix J

Appendix J (Volume 3, Section 3.9, page 14 of the impact statement) notes that modelling of atmospheric dispersion of contaminants was conducted in accordance with Schedule H of the Clean Air Regulation (CAR) and the generally accepted methodology, except for the nitrogen oxide modelling method. Section 3.9 notes that the Plume Volume Molar Ratio Method (PVMRM) was used. PVMRM is recommended when sources are isolated and

elevated. However, it can be observed that the sources at the generating station are side by side and that they are 12 metres high.

■ **QC-18 – Atmospheric dispersion studies**

The proponent must redo the modelling using the total conversion method and if, using this method, the CAR Schedule K limit values are exceeded, the proponent must redo the modelling using the Ozone Limiting Method (OLM). This is the most appropriate method when sources are close to the surface and plumes may overlap. If the OLM method is chosen, ozone concentrations and initial NO₂ concentrations in the “Nordic” row of Table 1 must be used for the new modelling.

If the new modelling shows exceedances of NO₂ and odour concentrations, the proponent must provide additional mitigation measures to make the project acceptable in terms of ambient air.

Réponse

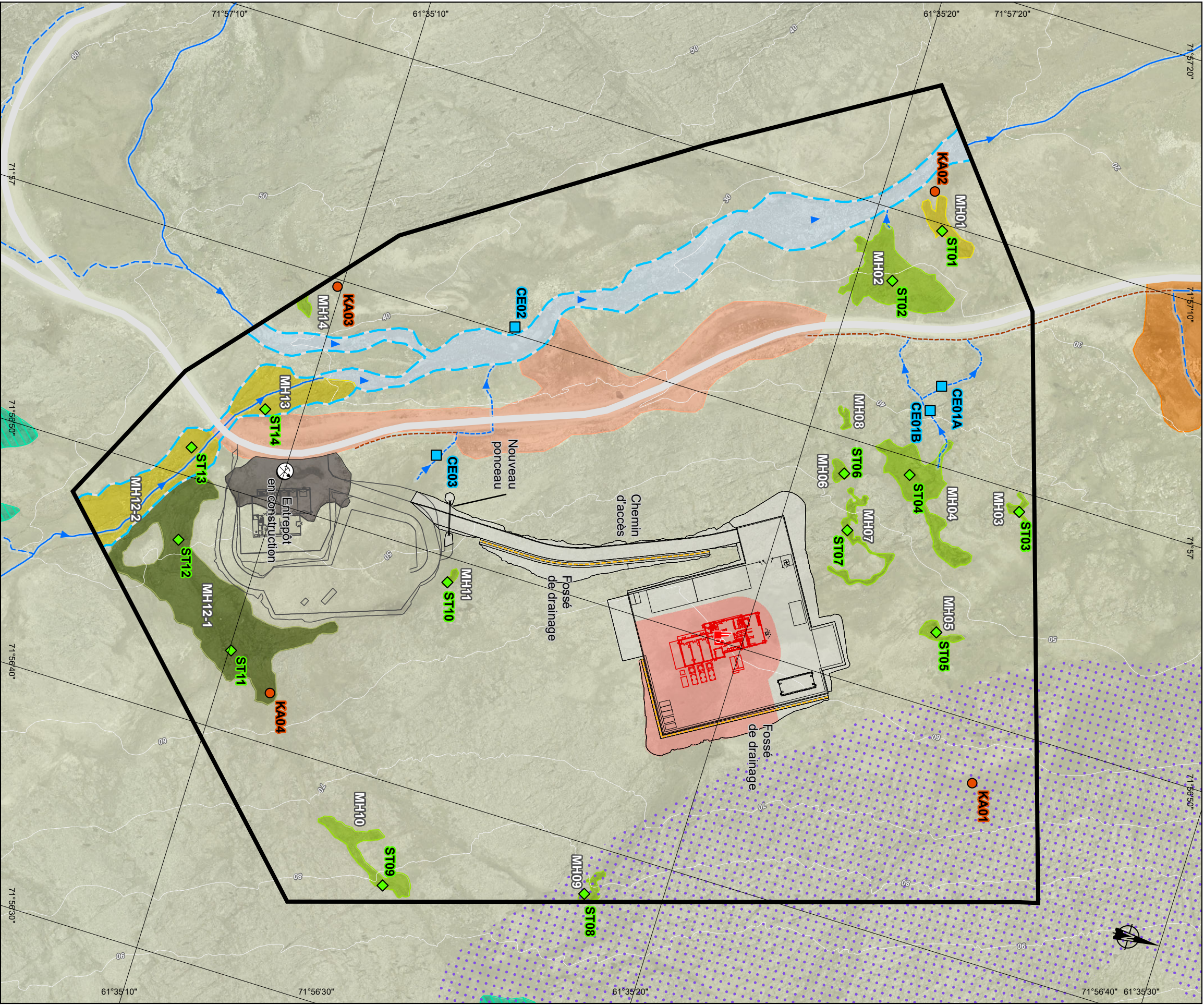
Atmospheric contaminant dispersion was modelled using the ozone limiting method (OLM). The technical note is in Appendix J.

In addition, Hydro-Québec proposed an amendment to the master zoning, land use and future development areas plan to the Kativik Regional Government and the municipality of Kangiqsujuaq. After the impact statement was tabled, an amendment to the land use plan, authorized by the Kangiqsujuaq municipal council and incorporated into the zoning plan proposal, provides for the creation of an industrial area surrounding the proposed site for the new generating station. Appendix K contains the excerpt from the proposed master plan. The municipality’s resolution 2024-12 (Appendix L) confirms the location of the industrial area around the future station.

The creation of this area was considered in new simulations, by adding receptors (computation points) every 25 m around it, and in the new interpretation of the results for NO₂. Air quality standards are not applicable in an industrial area where there are no public establishments or residences. In conclusion, there are no longer any expected exceedances of ambient NO₂ concentrations in the station’s vicinity, and the assessment of impacts on village air quality and the health of village residents remains identical to that of the impact statement.

Appendix A (Answer to QC-1)

Amended Map 5-2 in Volume 1 of the impact statement (in French)



Inventaires biologiques (2022)

- CE01** Station de caractérisation des cours d'eau
- ST01** Station de caractérisation des milieux humides
- KA01** Point de découpe de l'aviation

Milieu humain

- Secteur institutionnel et commercial
- Site d'extraction abandonné
- Autre milieu perturbé

Activité traditionnelle

- Aire de cueillette de petits fruits

Composantes du projet

- Centrale projetée
- Emprise du projet (centrale)
- Emprise du projet (portion non assujétie)
- Infrastructure
- Fossé de drainage
- Zone d'étude restreinte

Nouvelle centrale à Kangisujuaq

Milieux naturel et humain
Zone d'étude restreinte

Sources :

Orthophoto résolution 7 cm, MERN Québec, © Gouvernement du Québec, 2016
BDVA, 1/2 000, MERN Québec, avril 2013
Adresses Québec, MERN Québec, 1^{er} avril 2021
Kangisujuaq Master Plan 2016-2036, Administration régionale Kanik, 2016
Végétation du Nord québécois, MERN Québec, 2013
Données de projet, Hydro-Québec, août 2023

Inventaire : SNC-Lavalin
Cartographie : AtkinsRéalis
Fichier : ST19_elec_2_siq_005_mnh_zrestreinte_240528.mxd

0 25 50 m
MTM, fuseau 7, NAD83 (SCRS)
Équidistance des courbes : 10 m

Mai 2024

Carte 5-2



Appendix B (Answer to QC-2)

Resolution 2020-13



NORTHERN VILLAGE OF KANGIQSUJUAQ

P.O. BOX 60
KANGIQSUJUAQ, QUÉBEC J0M 1K0
TEL.: (819) 338-3342 FAX: (819) 338-3237
Resolution #2020-13

Concerning the proposal from Hydro Quebec to expand their lot in Kangiqsujaq

- WHEREAS** Hydro Quebec has requested from the Municipal Council approval to expand their lot to meet the growing need for increased power for the growing community;
- WHEREAS** the power house in Kangiqsujaq was built in the early 1970s, and was built outside of the community;
- WHEREAS** since then, the community has grown a lot and now the power house is in the center of the community, therefore the constant noise coming from the powerhouse is heard from residents around the area;
- WHEREAS** the municipal council discussed the request and decides that it is time to request Hydro Quebec to move the power house outside the community before the master plan for the community is adopted;

It is therefore resolved that:

1. the preamble be an integral part of the resolution;
2. the request for Hydro Quebec's lot expansion be rejected;
3. a letter to Hydro Quebec from the municipal council be sent to properly inform them of the reasons why the request for the expansion of the lot is not approved;
4. the secretary treasurer be instructed to send a copy of this resolution to Hydro Quebec;
5. this resolution come into effect the day of its adoption.

MOVED BY:

Jessica Arngat

SECONDED BY:

Mark Tertilat

IN FAVOUR:

4

OPPOSED:

0

ABSTENTIONS:

0

ABSENTEES:

3

DATE OF ADOPTION:

February 20, 2020

MAYOR'S SIGNATURE:

[Signature]

S. TREASURER'S SIGNATURE:

[Signature]



Appendix C (Answer to QC-3)

Resolution 2021-23



NORTHERN VILLAGE OF KANGIQTUJUAQ

P.O. Box 60
KANGIQTUJUAQ, QUÉBEC J0M 1K0
TEL: (819) 338-3342 FAX: (819) 338-3237

Resolution #2021-23

Concerning approval of a lot for Hydro Quebec to build a new power house

- WHEREAS** the existing power house is now coming to its end and now there is a need to increase the capacity;
- WHEREAS** there has been discussions with Hydro Quebec for the possibility to build a new power house in our community;
- WHEREAS** Hydro Quebec would like to receive some suggestions for plausible lots to build a new power house;
- WHEREAS** the Municipal council agrees that the new power house should be built in an area where there are not much residential units and is away from most of the town;

It is therefore resolved that:

1. the preamble be an integral part of the resolution;
2. the lot behind the gas station and away from most of the residential units be approved for construction of a new Hydro Quebec power house;
3. the area indicated in appendix 1, be identified as the best place to build a new power house;
4. this resolution come into effect the day of its adoption.

MOVED BY:

Daniel Nappaaluk

SECONDED BY:

Qiallak Nappaaluk

IN FAVOUR:

5

OPPOSED:

1

ABSTENTIONS:

0

ABSENTEES:

1

DATE OF ADOPTION:

September 17, 2021

MAYOR'S SIGNATURE:

دانيال ناپپالوك

S. TREASURER'S SIGNATURE:

Boakiatanaq



Appendix D (Answer to QC-4)

Resolution 2022-29



NORTHERN VILLAGE OF KANGIHSUJUAQ

P.O. Box 60

KANGIHSUJUAQ, QUÉBEC J0M 1K0

TEL: (819) 338-3342 FAX: (819) 338-3237

Resolution #2022-29

Concerning approval of a lot for Hydro Quebec to build a new power house

- WHEREAS** the existing power house needs to be upgraded and now there is a need to increase the capacity;
- WHEREAS** there have been discussions with Hydro Quebec for the possibility to build a new power house in our community;
- WHEREAS** the Municipal council agrees that the new power house should be built in an area where there are not much residential units and is away from most of the town;
- WHEREAS** Hydro Quebec has submitted a few options of potential lots and have come to the decision of the location KAH-2 in the appended map;

It is therefore resolved that:

1. the preamble be an integral part of the resolution;
2. the lot KAH-2 behind the gas station and away from most of the residential units be approved for construction of a new Hydro Quebec power house;
3. the area indicated in appendix 1, be identified as the best place to build a new power house;
4. this resolution come into effect the day of its adoption.

MOVED BY:

SECONDED BY:

IN FAVOUR:

OPPOSED:

ABSTENTIONS:

ABSENTEES:

DATE OF ADOPTION:

MAYOR'S SIGNATURE:

S. TREASURER'S SIGNATURE:

Charlie Arngak

Alec Aupatuk

6

0

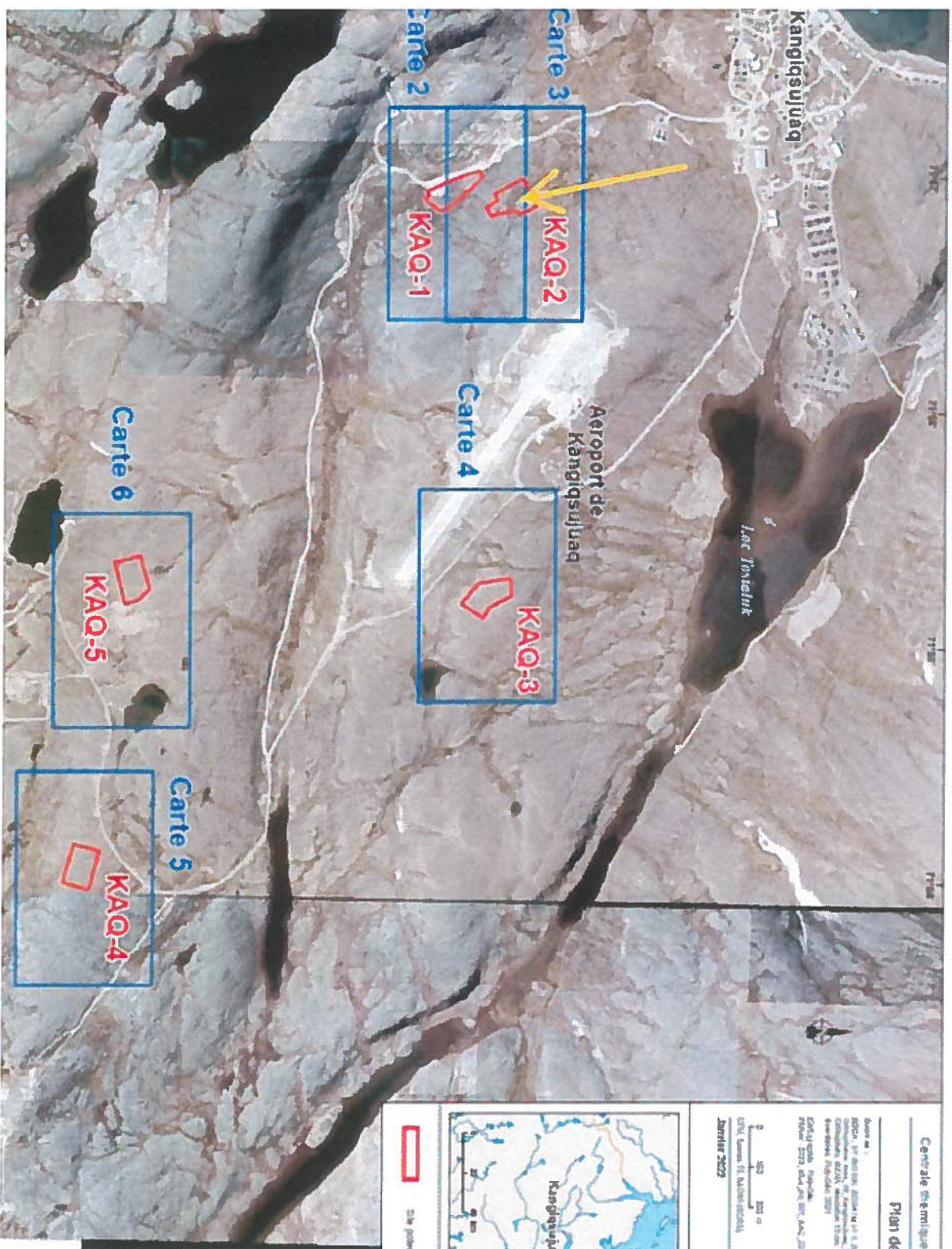
0

1

June 22, 2022

Steve H. H.

Paul Kiataing



Appendix E (Answer to QC-5)

Resolution 2022-49

NUNATURLIK LANDHOLDING CORPORATION OF KANGIQSUJUAQ

**Board of Directors meeting
Resolution No. 2022- 49 _____**

Re: Hydro-Québec New Development Project: Field studies on a preferred potential site over which a new thermal generating station shall be built in 2025 – 2028

WHEREAS Nunaturlik Landholding Corporation of Kangiqsujuaq ("**Nunaturlik LHC**") is the sole owner of Kangiqsujuaq Category I lands and, pursuant to the *Act Respecting the Land Regime in the James Bay and Northern Québec Territories* (CQLR, chapter R-13.1), may grant usage and occupation rights on such Category I lands;

WHEREAS Nunaturlik LHC received from Hydro Quebec on May 11, 2022, a duly completed *Notification of HQ construction project Form* (copy attached hereto as Annex 1), for a project presented as follows:

Project Description:	Field studies on a preferred potential site over which a new thermal generating station shall be built in 2025 to 2028 (dates to be confirmed), the whole as identified on an extract of plan attached to the present resolution (Annex 2)
Total parcel(s) of land required:	One (1) parcel of Kangiqsujuaq Cat. I Lands
Dimension of the parcel(s) of land required:	Approximately 12,000 s.m. (129,168 s.f.)
Location of the Project:	Preferred potential site identified as "KAQ-2, the whole as shown on the extracts of plan attached hereto as Annex 2.
Access road required:	Private access road of 200m will be built to access the lot of the new thermal generating station
Field studies Schedule:	Not identified

Hereafter the "**Project**"

WHEREAS the Board of Directors of Nunaturlik LHC hereby supports the construction of a new thermal generating station to be built in 2025 – 2028 (dates to be confirmed) over the preferred potential site identified as "KAQ-2", the whole as identified on an extract of plan attached to the present resolution;

WHEREAS Hydro-Québec shall communicate with Nunaturlik LHC and the NV Kangiqsujuaq when the Project will be more advanced;

WHEREAS One (1) piece of Kangiqsujuaq Category I land has been identified for the Project;

WHEREAS it is necessary for Nunaturlik Board of Directors to duly allocate the identified said piece of Category I land and to authorize Hydro-Québec the performance of the Project over Kangiqsujuaq Category I Land.

THEREFORE, UPON MOTION DULY MOVED AND SECONDED, IT IS HEREBY RESOLVED:

THAT: the preamble is an integral part of the present resolution;

THAT: Nunaturlik LHC hereby allocates to Hydro-Québec the following identified said piece of Category I land and authorizes the Promoter the performance of the Project over Kangiqsujuaq Category I Land, as follows:

Project Description:	Field studies on a preferred potential site over which a new thermal generating station shall be built in 2025 to 2028 (dates to be confirmed), the whole as identified on an extract of plan attached to the present resolution (Annex 2)
For the Project:	One (1) parcel of land identified as “KAQ-2”
Approximate size lot allocated to the Promoter	Approximately 12,000 s.m. (129,168 s.f.)
For storage of construction material/equipment:	Same parcel of land as described hereabove
The whole as identified on an extract of plan attached to the present resolution.	

THAT: the above-mentioned authorization issued by the Nunaturlik LHC to Hydro-Québec specifically for the present Project is conditional that :

- 1) Hydro-Québec shall communicate with Nunaturlik LHC when the project will be more advanced; and
- 2) Hydro-Québec shall then transmit to Nunaturlik LHC, prior the construction of the new generating station, a Notification Construction Project form;
- 3) Hydro-Québec shall pay Nunaturlik LHC compensation for extraction of granular as follows:

Granular	2023	2024	2025	2026	2027
Any type of aggregate material (Natural gravel, sand, all processed aggregate, boulders, top soil, surface scraped granular, etc.)	\$7.10/m.t. \$14.20 m ³	\$7.20/m.t. \$14.40 m ³	\$7.30 m.t. \$14.60 m ³	\$7.40 m.t. \$14.80 m ³	\$7.50 m.t. \$15.00 m ³
All natural granular extracted and then processed into one or more products by such methods as crushing, screening or washing, which includes road gravel, concrete gravel, crushed rock of varying sizes, pea gravel, and for resale (LHC's written authorization required):	\$9.00/m.t. \$18.00 m ³	\$9.10/m.t. \$18.20 m ³	\$9.20/m.t. \$18.40 m ³	\$9.30/m.t. \$18.60 m ³	\$9.40/m.t. \$18.80 m ³
Unauthorized use & occupation of Cat. I Land for the purposes of extracting aggregate material	\$14.20/m.t. \$28.40 m ³	\$14.40/m.t. \$28.80 m ³	\$14.60/m.t. \$29.20 m ³	\$14.80/m.t. \$29.60 m ³	\$15.00/m.t. \$30.00 m ³

THAT: a copy of the present resolution bent sent to:

Mr. Frédéric Brassard Hydro-Québec Brassard.fredecic@hydro.qc.ca	Helene Orlando NLHCA horlando@nlhca.ca
---	---

THAT: the President of Nunaturlik LHC be and is hereby authorized to execute any and all documents to give effect to the present resolution;

Moved by:	<u> Markusi Qisiiq </u>	Seconded by:	<u> Dora Tertiluk </u>
In favor:	<u> 4 </u>	Against:	<u> 0 </u>
Absent:	<u> 3 </u>	Abstention:	<u> 0 </u>

CERTIFICATION

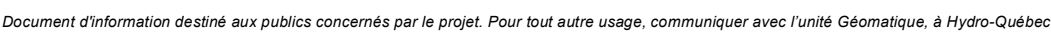
I, the undersigned, Secretary-Treasurer of Nunaturlik Landholding Corporation of Kangiqsujuaq certify that the foregoing resolution is a true and exact copy of a resolution duly adopted at a duly called meeting of the Board of Directors of the corporation held in Kangiqsujuaq, on the 11 day of October , 2022.

Kangiqsujuaq, on the 11 day of October , 2022


Secretary-Treasurer

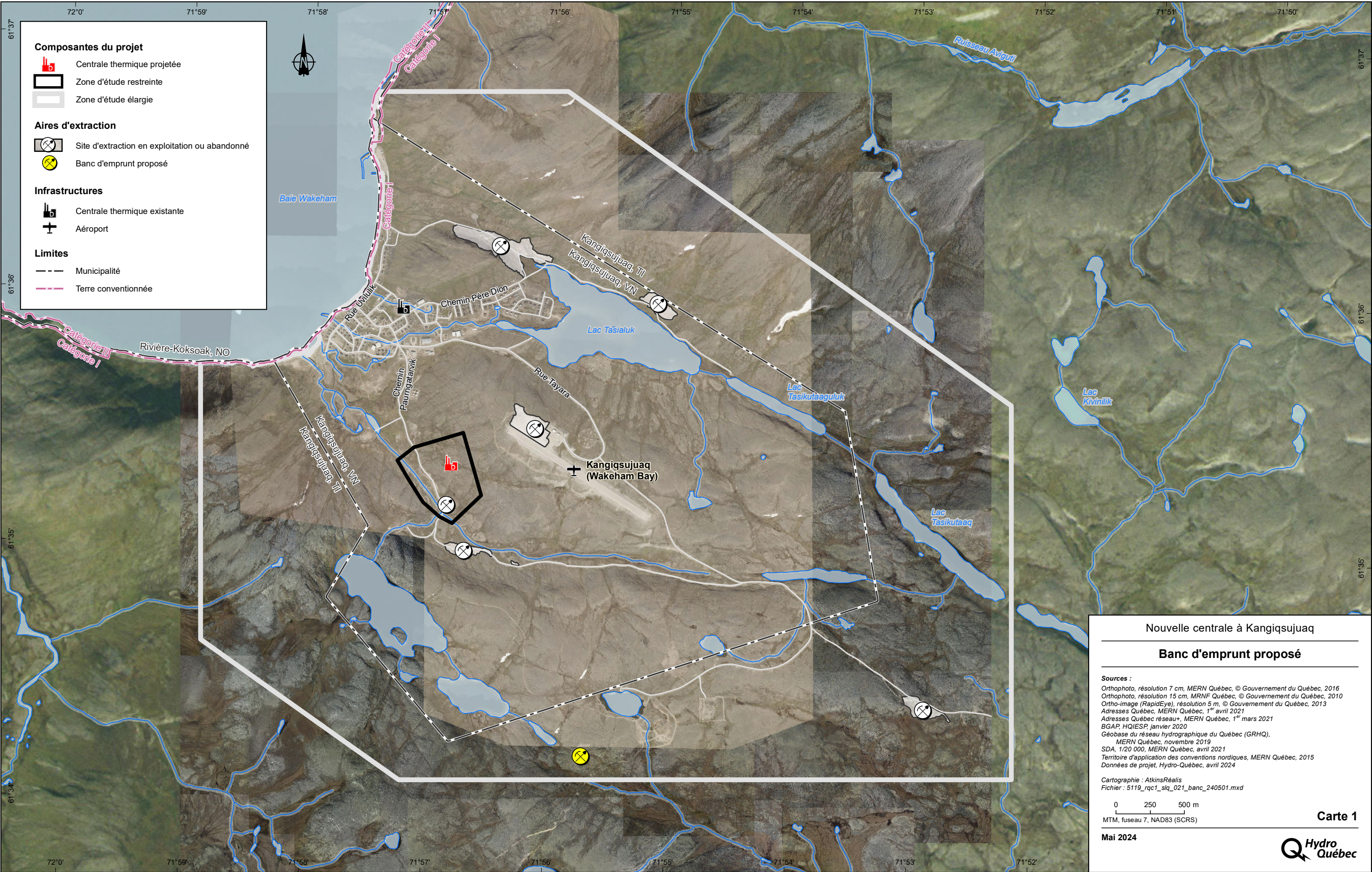
Appendix F (Answer to QC-8)

Map A Biophysical and human environment – Extended study area (in French)



Appendix G (Answer to QC-8)

Map of borrow pits (in French)



Appendix H1 à H3 (Answer to QC-11)

Puvirnituk generating station (in French)

NOTES

NO	DATE	REVISIONS	QUKID	LG	MM
0	2024-02-15	LOT 2 REMISE #1 POUR COMMENTAIRES			
NO	DATE	REVISIONS	R. DE T.	EMETT.	HQ

REFERENCES

RÉGIS

DESSINÉ : K.ROUSSEL
PRÉPARÉ : K.ROUSSEL
VÉRIFIÉ : M.A.PEPIN
VÉRIFIÉ : M.MICHEL
SCHEMAS DESSIN ORIGINAL ÉMIS PAR : RÉGIS CÔTE ET ASSOCIÉS
SCÉLÉ ET SIGNÉ PAR : MAGALIE MICHEL, ARCH. A-3714

REVISION x 0 = SCÉLÉ PAR:

ÉCHELLE : 0 1 2 3 4

RAPPORT : INDIQUE DIMENSIONS EN : mm

CENTRALE KANGIOSUJUAQ-II
CENTRALE DIESEL ET POSTE 4.16kV
ARCHITECTURE
PLANS DU R-D-C ET DE L'ÉTAGE
5119-40450-005-01-0-LG-0-QUKID-01-AR

NOTES GÉNÉRALES DE CONSTRUCTION

POUR TOUTES LES INTERVENTIONS EN STRUCTURE ET EN ELECTROMECANIQUE, SE REFERER AUX DOCUMENTS DES PROFESSIONNELS EN INGENIERIE.

- TOUTES LES PIÈCES DE BOIS EN CONTACT AVEC L'EXTÉRIEUR (DIRECTEMENT OU INDIRECTEMENT), ET EN CONTACT AVEC DU MÉTAL, DU BÉTON ET DE LA MAÇONNERIE DOIVENT ÊTRE TRAITÉES AVEC UN PRODUIT DE PRÉSERVATION SOUS PRESSION C.A.Q. (COUVRE ALCALIN QUATERNAIRE), TEL QU'INDIQUÉ AUX PLANS ET AUX C.T.P.
- LA NATURE, LE FORMAT, LA PROFONDEUR D'ENFONCEMENT ET LA QUANTITÉ DE VIS, BOULONS, CHEVILLES DE FIXATION, SYSTÈME D'ANCRAGE, SYSTÈME D'ATTACHES ETC. SONT SOUS LA RESPONSABILITÉ DE L'ENTREPRENEUR LORSQUE NON SPÉCIFIÉS AUX PLANS DES PROFESSIONNELS EN ARCHITECTURE. L'ENTREPRENEUR DOIT S'ASSURER QUE LES CONES D'ARRACHEMENT SOIENT RESPECTÉS LORSQUE DES ÉLÉMENTS DE FIXATION SONT RAPPROCHÉS LES UNS DES AUTRES. LORSQUE DES ÉLÉMENTS PRÉFABRIQUÉS DOIVENT ÊTRE MIS EN ŒUVRE, L'ENTREPRENEUR DEVRA VALIDER AVEC LES FABRICANTS AFIN D'UTILISER DES SYSTÈMES DE FIXATION RECOMMANDÉS PAR CEUX-CI. L'ENTREPRENEUR DOIT S'ASSURER QUE LES SYSTÈMES DE FIXATION UTILISÉS SUFFIRONT À SUPPORTER ADEQUATEMENT LES ÉLÉMENTS DEMANDÉS ET NE METTENT PAS EN DANGER LA SÉCURITÉ DE L'EXPLOITANT. LES SYSTÈMES PRÉVUS PAR L'ENTREPRENEUR DOIVENT S'ADAPTER SELON LA NATURE DU SUBSTRAT, LA LOCALISATION ET LE CONTEXTE DU PROJET.
- SAUF INDICATIONS CONTRAIRES, L'ENTREPRENEUR DEVRA ÉRIGER L'ENSEMBLE DES CLOISONS DE FAÇON ADEQUATE ET ROBUSTE, DE DALLE À DALLE ET ASSURER QUE CES DERNIÈRES ACCEPTENT LA DEFLECTION DE LA STRUCTURE. À COORDONNER AVEC LES DOCUMENTS D'INGÉNIERIE.
- L'ENTREPRENEUR DEVRA S'ASSURER QUE TOUTES LES COMPOSANTES ET PROPRIÉTÉS DES CLOISONS À ÉRIGER ÉPOUSSENT PARFAITEMENT LE PROFIL DU PONTAGE PEU IMPORTE QUIL, SCORPERICOLAIRE OU PARALLÈLE ET TOUT AUTRES ÉLÉMENTS STRUCTURAUX. (LISTE NON EXHAUSTIVE: PANNEAU DE GYPSE, SCÈLEMENT, ISOLATION, COLOMBAGES MÉTALLIQUES, ETC.). SE REFERER AUX DOCUMENTS DES PROFESSIONNELS.
- FOURNIR ET INSTALLER DES BANDES D'ETHAFOAM À LA BASE ET À LA TÊTE DE CHACUNE DES LISSES HAUTES ET BASES.
- À TOUTES LES JONCTIONS DU GYPSE AVEC UN AUTRE MATÉRIAU, OU QU'UN GYPSE S'ARRÊTE À UNE LIMITE PRÉCISÉE AUX DESSINS, L'EXTREMITÉ DU GYPSE DEVRA ÊTRE FINI PAR UNE GARNITURE MÉTALLIQUE EN "J".
- POUR RESPECTER L'INTÉGRITÉ DES RÉSISTANCES AU FEU ET ACOUSTIQUE DE L'ENSEMBLE DES CLOISONS, LE SCÈLEMENT DOIT ÊTRE FAIT AU POURTOUR DE CES DERNIÈRES ET AU POURTOUR DE CHACUN DES PERCEMENTS À L'AIDE D'UN SCÉLANT COUPE-FEU OU ACOUSTIQUE SELON LA CONDITION. L'ENSEMBLE DES SCÈLEMENTS COUPE-FEU DOIVENT ÊTRE UN SYSTÈME COUPE-FEU HOMOLOGUÉS LORSQU'IL EST IMPOSSIBLE D'UTILISER UN SYSTÈME HOMOLOGUÉS STANDARD. IL EST DE LA RESPONSABILITÉ DE L'ENTREPRENEUR DE FAIRE RÉALISER UN JUGEMENT D'INGÉNIERIE SPÉCIFIQUE AU PROJET DE FAÇON À ASSURER LA CONTINUITÉ DE LA RÉSISTANCE AU FEU REQUISE AINSI QUE L'ENSEMBLE DES AUTRES CONDITIONS POTENTIELLES (INDICE DE TRANSMISSION SONORE, PROTECTION ANTI-GAZ, ETC.).
- LES PRODUITS UTILISÉS DOIVENT ÊTRE PEINTS D'UNE COULEUR COMPATIBLE AVEC LES FINIS DES SURFACES APPARENTES. BIEN LISSER LE PRODUIT POUR OBTENIR UNE FINITION FACILITANT L'ENTRETIEN, SANS SAILLIE PAR RAPPORT AUX SURFACES ADJACENTES.
- FOURNIR ET INSTALLER LES FONDS DE VISSAGE EN TÔLE D'ACIER GALVANISÉ 2.6mm D'ÉPAISSEUR (INSTALLÉ EN SURFACE DES COLOMBAGES) ET/OU EN PANNEAU DE CONTREPLAQUE IGNIFUGE 19mm D'ÉPAISSEUR (INSTALLÉ À L'INTÉRIEUR DES COLOMBAGES) NÉCESSAIRE POUR TOUTES LES ACCESSOIRES, MOBILIERS, QUINCAILLERIE, ÉQUIPEMENTS, CALORIFÈRE, ETC. À ÊTRE FIXES OU RETENUS AUX MURS. VOIR L'ENSEMBLE DES PLANS, DES DOCUMENTS D'INGÉNIERIE POUR L'ENVERGURE DES TRAVAUX ET COORDONNER CERTAINS EMPLACEMENTS AVEC LE PROPRIÉTAIRE.
- FONDS VISSAGE POUR MURS DE BLOCS DE BÉTON: REMPLIR LES CELLULES ESSENTIELLES LORSQU'UN FOND VISSAGE EST NÉCESSAIRE POUR LA FIXATION DE TOUTS ACCESSOIRES, MOBILIERS, QUINCAILLERIE, ÉQUIPEMENTS, CALORIFÈRE, ETC. UTILISER LA BONNE MÉTHODE DE FIXATION RECOMMANDÉE POUR DES BLOCS DE BÉTON (MÉCANIQUE OU CHIMIQUE). VOIR L'ENSEMBLE DES PLANS, DES DOCUMENTS D'INGÉNIERIE POUR L'ENVERGURE DES TRAVAUX ET COORDONNER CERTAINS EMPLACEMENTS AVEC LE PROPRIÉTAIRE.
- LA REPRÉSENTATION GRAPHIQUE DES ÉLÉMENTS À L'INTÉRIEUR DES CLOISONS INTÉRIEURES TYPES EST À TITRE INFORMATIF ET NE REFLETE PAS NÉCESSAIREMENT LA RÉALITÉ. LA DESCRIPTION DE LA COMPOSITION A PRÉSENCE SUR LA COMPOSITION GRAPHIQUE.
- SAUF INDICATIONS CONTRAIRES AUX PLANS, POUR TOUTES LES COMPOSITIONS DE PLUS D'UN RANG DE GYPSE OU UN DEGRÉ DE RÉSISTANCE AU FEU EST DEMANDÉ. CHEVAUCHER DANS LES DEUX SENS TOUTS LES RANGS DE PANNEAUX DE GYPSE.
- TOUTES LES CLOISONS SONT COTÉES PAR RAPPORT AU CENTRE DU COLOMBAGE MÉTALLIQUE ET/OU CENTRE DU BLOC DE BÉTON, SAUF INDICATIONS CONTRAIRES.
- POUR TOUTES CLOISONS INTÉRIEURES NE COMPORTANT AUCUN ISOLANT DANS SA CAVITÉ, VENTILER LE HAUT DE LA CLOISON EN INTERROMPANT LA FINITION MURALE À 100mm DE SON APPUI, SAUF INDICATIONS CONTRAIRES.
- LORSQU'UN FOND DE VISSAGE APPARENT EST REQUIS DERRIÈRE UN ÉQUIPEMENT ÉLECTRIQUE, FOURNIR ET INSTALLER UN PANNEAU DE CONTREPLAQUE IGNIFUGE, 19mm D'ÉPAISSEUR x FORMAT REQUIS. HAUTEUR D'INSTALLATION EN CLIN LES BESOINS EN ÉLECTRICITÉ. PEINDRE LE PANNEAU DE CONTREPLAQUE D'UNE PEINTURE INTUMESCENTE AVANT L'INSTALLATION DE L'ÉQUIPEMENT ÉLECTRIQUE.
- LIMITER AU MINIMUM LE PERÇEMENT DE LA MEMBRANE D'ÉTANCHÉITÉ ANTI-GAZ. APPLICATION SUR LA PLEINE SURFACE DE L'AXE "B". SCÉLER PARFAITEMENT DE LA TÊTE (PONTAGE) ET POUTRELLES (ACIER) AU SOL (DALLE DE BÉTON).
- SAUF INDICATIONS CONTRAIRES AUX PLANS, TOUTES LES PORTES SONT POSITIONNÉES À 150mm DE LA CLOISON OU L'EMBOGAGE DE COLONNE LE PLUS PRÈS (INTÉRIEUR CADRE).
- LES TERMES **SIMILAIRE** OU **SIM.** INDICENT QUE LE DÉTAIL, LA COUPE ET/OU AUTRES ÉLÉMENTS REFLETTENT DANS L'ENSEMBLE LES MÊMES PRINCIPES DE CONSTRUCTION QUE LE DÉTAIL ORIGINAL, IL PEUT Y AVOIR DES DIVERGENCES ENTRE LES MATÉRIAUX, LES DIMENSIONS ET LES NIVEAUX. LES TERMES **INVERSE** OU **INV.** INDICENT QUE LE DÉTAIL, LA COUPE ET/OU AUTRES ÉLÉMENTS REFLETTENT DANS L'ENSEMBLE LES MÊMES PRINCIPES DE CONSTRUCTION QUE LE DÉTAIL ORIGINAL, MAIS QU'ILS SONT MIROIRÉS OU INVERSÉS SYMÉTRIQUEMENT. LES TERMES MENTIONNÉS CI-HAUT PEUVENT ÊTRE JUMELÉS.
- L'ENSEMBLE DES FACES DE BÉTON VISIBLES HORS-SOL (PILASTRES) DEVONT ÊTRE RECOUVERTES D'UN REVÊTEMENT D'ENDUIT ÉPOXYDIQUE.
- MINIMISER AU MAXIMUM** LES FIXATIONS SUR LES ÉLÉMENTS D'ACIER RECOUVERT D'UNE PEINTURE INTUMESCENTE AFIN D'ASSURER LA RÉSISTANCE AU FEU CONTINUE DES ÉLÉMENTS STRUCTURAUX.
- ALUMINIUM VS ACIER**
L'ENTREPRENEUR DEVRA FOURNIR ET INSTALLER UNE MEMBRANE SÉPARATRICE HAUTE TEMPÉRATURE LORSQU'IL Y A PROXIMITÉ ENTRE DES ÉLÉMENTS D'ACIER ET D'ALUMINIUM.
- LES SOUFFLAGES ET CLOISONS ENTOURANT LES CONDUITS ET AUTRES ÉQUIPEMENTS VERTICAUX TRAVERSANT L'ASSEMBLAGE PLANCHER/PFOND SONT COTÉS À TITRE INDICATIF. SEULEMENT L'ENTREPRENEUR DEVRA S'Y FIER LE PLUS FIDÈLEMENT POSSIBLE, EN ÉVITANT TOUT CONFLIT AVEC LA STRUCTURE.
- LES DRAINS DE PLANCHER SONT À COORDONNER AVEC LES DOCUMENTS DES PROFESSIONNELS EN INGÉNIERIE. CEUX REPRÉSENTÉS AUX PLANS LE SONT QU'À TITRE INDICATIF SEULEMENT. RÉAUSER DES PENTES SUR LA DALLE, D'UN MINIMUM DE 1% VERS LES DRAINS À L'INTÉRIEUR DES PIÈCES POUR PERMETTRE L'ÉCOULEMENT DE L'EAU.
- INFORMATIONS COMPLÉMENTAIRES SE RETROUVANT SUR LES DESSINS.

LES DESSINS RENFERMENT DES INFORMATIONS COMPLÉMENTAIRES PROVENANT DES AUTRES DISCIPLINES. CES INFORMATIONS COMPLÉMENTAIRES NE SONT DONNÉES QU'À TITRE INDICATIF AFIN DE FACILITER LA LECTURE DES DESSINS. LES DESSINS DES DISCIPLINES AUXQUELLES CES INFORMATIONS COMPLÉMENTAIRES SE RAPPORTENT, ONT PRÉSENCE SUR LES DESSINS DES AUTRES DISCIPLINES. VALIDER L'ENSEMBLE DES INFORMATIONS AVANT DE DÉBUTER LES TRAVAUX. DANS LE CAS DE NON CONCORDANCE ENTRE LES DOCUMENTS, EN AVISER LES DISCIPLINES CONCERNÉES.

LÉGENDE DES ABRÉVIATIONS

C.T.P.	CLAUSES TECHNIQUES PARTICULIÈRES.
TYP.	DÉTAIL/COUPE TYPIQUE.
INV.	DÉTAIL/COUPE/ELEVATION INVERSE.
MIN.	MINIMUM.
SIM.	DÉTAIL/COUPE SIMILAIRE.
DRF.	DEGRÉ DE RÉSISTANCE AU FEU.
S.O.	SANS OBJET.
S.I.C.	SAUF INDICATIONS CONTRAIRES.
N.I.C.	NON INCLUS AU PRÉSENT CONTRAT.
CTR.	CONTREVENTEMENT, VOIR DOCUMENTS D'INGÉNIERIE.
D.P.	DRAIN DE PLANCHER, VOIR DOCUMENTS D'INGÉNIERIE.
EV.	ÉVÉNEMENT DE TOITURE, VOIR DOCUMENTS D'INGÉNIERIE.
O.B.	OUVERTURE BRUTE.
E.B.	ESCALIER VERS LE BAS.
E.H.	ESCALIER VERS LE HAUT.
L.P.	LIMITE PONTAGE.
S.L.	SÈCHE-LINGE.
R.E.I.	RÉSISTANCE EXTRÊME À L'IMPACT.
E.P.M.	EXTINCTEUR PORTATIF MURAL.
C.M.	CONTREMARCHE.

LÉGENDE DES SYMBOLES

XXXXXX	NOM ET NUMÉRO DE PIÈCE
XX	COMPOSITIONS TYPIQUES DES CLOISONS ET SOUFFLAGES INTÉRIEURS
MX	COMPOSITIONS TYPIQUES DE L'ENVELOPPE
PXX	NUMÉRO DE PORTE INTÉRIÈRE
PEXX	NUMÉRO DE PORTE EXTÉRIÈRE
PGXX	NUMÉRO DE PORTE DE GARAGE SECTIONNELLE
MRXX	NUMÉRO DU MUR-RIDEAU
PXX	COMPOSITIONS TYPIQUES DE PARAPET
TX	COMPOSITIONS TYPIQUES DE TOITURE
SXX	COMPOSITIONS TYPIQUES DE SOFFITE
PLX	COMPOSITIONS TYPIQUES DE PLANCHER
XX	BULLE DE RÉFÉRENCE
XX-XXX	NIVEAU DE PLANCHER OU DE PLAFOND
X	AXE STRUCTURAL
—CRT—	CONTREVENTEMENT STRUCTURAL
3/4h	DEGRÉ DE RÉSISTANCE AU FEU DE 45 MINUTES
1h	DEGRÉ DE RÉSISTANCE AU FEU D'UNE (1) HEURE
2h	DEGRÉ DE RÉSISTANCE AU FEU DE DEUX (2) HEURES
	ENSEMBLE DE PORTES, CADRES ET QUINCAILLERIES
	LUMINAIRE, VOIR DOCUMENTS SPÉCIFIQUES D'ÉLECTRICITÉ
0	BULLE DE RÉFÉRENCE À UNE ÉLEVATION (POSITION DE LA PORTE SELON LA VUE DEMANDÉE)
0	TYP. BULLE DE RÉFÉRENCE À UNE COUPE (TYP. TYPIQUE LORSQU'APPLICABLE)
AXX	NOTE D'IDENTIFICATION

LÉGENDE GRAPHIQUE DES MATÉRIAUX

	BÉTON (DALLE DE BÉTON, MUR DE BÉTON MIS EN PLACE)
	BÉTON EN COUPE
	SOL REMANÉ
	FINITION DE PANNEAUX DE GYPSE
	FENESTRATION VITRAGE

NIVEAU 2 - PLAN DE L'ÉTAGE

Échelle 1 : 100

NIVEAU 1 - REZ-DE-CHAUSSÉE

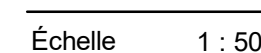
Échelle 1 : 100

5119-40450-005-01-0-LG-0-QUKID-01-AR

(2023-01)



Échelle 1 : 25



A01 ARMURE DE RANGEMENT POUR MÉCANIQUE N.C.

A02 GARDER CETTE ZONE LIBRE POUR ESPACE DE RANGEMENT DE PETITS ÉQUIPEMENTS

A03

A04 CABLES TROIS (3) CABLES N.C.

A05

A06 ARRETER CABLES TROIS (3) CABLES N.C.

A07

A08 CABLES TROIS (3) CABLES N.C.

A09

A10 CABLES TROIS (3) CABLES N.C.

A11

A12 PANEAU DE CONTRÔLE CONFIGURATION NEUF DE 100mm X150mm DE HAUTEUR X 150mm DE PROFONDEUR. SE RÉFÉRER AUX DOCUMENTS DES PROFESSIONNELS EN INGÉNIEUR.

A13

A14 CHANTIER

A15

A16

A17

A18

A19

A20

A21

A22

A23

A24

A25

A26

A27

A28

A29

A30

A31

A32

A33

A34

A35

A36

A37

A38

A39

A40

A41

A42

A43

A44

A45

A46

A47

A48

A49

A50

A51

A52

A53

A54

A55

A56

A57

A58

A59

A60

A61

A62

A63

A64

A65

A66

A67

A68

A69

A70

A71

A72

A73

A74

A75

A76

A77

A78

A79

A80

A81

A82

A83

A84

A85

A86

A87

A88

A89

A90

A91

A92

A93

A94

A95

A96

A97

A98

A99

A00

A01

A02

A03

A04

A05

A06

A07

A08

A09

A10

A11

A12

A13

A14

A15

A16

A17

A18

A19

A20

A21

A22

A23

A24

A25

A26

A27

A28

A29

A30

A31

A32

A33

A34

A35

A36

A37

A38

A39

A40

A41

A42

A43

A44

A45

A46

A47

A48

A49

A50

A51

A52

A53

A54

A55

A56

A57

A58

A59

A60

A61

A62

A63

A64

A65

A66

A67

A68

A69

A70

A71

A72

A73

A74

A75

A76

A77

A78

A79

A80

A81

A82

A83

A84

A85

A86

A87

A88

A89

A90

A91

A92

A93

A94

A95

A96

A97

A98

A99

A00

A01

A02

A03

A04

A05

A06

A07

A08

A09

A10

A11

A12

A13

A14

A15

A16

A17

A18

A19

A20

A21

A22

A23

A24

A25

A26

A27

A28

A29

A30

A31

A32

A33

A34

A35

A36

A37

A38

A39

A40

A41

A42

A43

A44

A45

A46

A47

A48

A49

A50

A51

A52

A53

A54

A55

A56

A57

A58

A59

A60

A61

A62

A63

A64

A65

A66

A67

A68

A69

A70

A71

A72

A73

A74

A75

A76

A77

A78

A79

A80

A81

A82

A83

A84

A85

A86

A87

A88

A89

A90

A91

A92

A93

A94

A95

A96

A97

A98

A99

A00

A01

A02

A03

A04

A05

A06

A07

A08

A09

A10

A11

A12

A13

A14

A15

A16

A17

A18

A19

A20

A21

A22

A23

A24

A25

A26

A27

A28

A29

A30

A31

A32

A33

A34

A35

A36

A37

A38

A39

A40

A41

A42

A43

A44

A45

A46

A47

A48

A49

A50

A51

A52

A53

A54

A55

A56

A57

A58

A59

A60

A61

A62

A63

A64

A65

A66

A67

A68

A69

A70

A71

A72

A73

A74

A75

A76

A77

A78

A79

A80

A81

A82

A83

A84

A85

A86

A87

A88

A89

A90

A91

A92

A93

A94

A95

A96

A97

A98

A99

A00

A01

A02

A03

A04

A05

A06

A07

A08

A09

A10

A11

A12

A13

A14

A15

A16

A17

A18

A19

A20

A21

A22

A23

A24

A25

A26

A27

A28

A29

A30

A31

A32

A33

A34

A35

A36

A37

A38

A39

A40

A41

A42

A43

A44

A45

A46

A47

A48

A49

A50

A51

A52

A53

A54

A55

A56

A57

A58

A59

A60

A61

A62

A63

A64

A65

A66

A67

A68

A69

A70

A71

A72

A73

A74

A75

A76

A77

A78

A79

A80

A81

A82

A83

A84

A85

A86

A87

A88

A89

A90

A91

A92

A93

A94

A95

A96

A97

A98

A99

A00

A01

A02

A03

A04

A05

A06

A07

A08

A09

A10

A11

A12

A13

A14

A15

A16

A17

A18

A19

A20

A21

A22

A23

A24

A25

A26

A27

A28

A29

A30

A31

A32

A33

A34

A35

A36

A37

A38

A39

A40

A41

A42

A43

A44

A45

A46

A47

A48

A49

A50

A51

A52

A53

A54

A55

A56

A57

A58

A59

A60

A61

A62

A63

A6

[illegible]

5119-40450-005-02-0-LG-0-QUKID-01-AR

Appendix I (Answer to QC-12)

Resolution 2023-02 and NLS management

NORTHERN VILLAGE OF KANGIJSUJUAQ

By-law No. 2023-02

Concerning the use of the municipal solid waste disposal site and the dumping of waste.

- WHEREAS** the Municipal Council (hereinafter the Council) has the power to secure the peace, order, good government, health and general welfare in the territory of the municipality pursuant to section 166 of *An Act respecting Northern villages and the Kativik Regional Government* (CQLR, c. V-6.1; hereinafter the Kativik Act);
- WHEREAS** the Council has the power to construct, equip and operate plants for the elimination or recycling of waste and to regulate or prohibit the use of places as dumps pursuant to subsection 174 (12) of the Kativik Act;
- WHEREAS** the Council has the power to prohibit the dumping of waste or garbage pursuant to subsection 174 (11) a) of the Kativik Act;
- WHEREAS** this by-law must be adopted and interpreted in light of the laws and regulations in effect in the Province of Québec;
- WHEREAS** a notice of motion for this by-law was duly given during the preceding sitting of the Council held on July 15th, 2023.

THEREFORE, the Council of the Northern Village of Kuujuaq, by this by-law, enacts and decrees as follow:

1. DEFINITIONS

- 1.1 **“At cost”** shall mean the equipment rental and manpower municipal rates, as adjusted from time to time, and any administrative overhead costs plus 15%.
- 1.2 **“Authorized officer”** shall mean any officer or municipal by-laws enforcement officer of the municipality whose duty is notably to be in charge of the enforcement of the present by-law within the territory under the jurisdiction of the municipality.
- 1.3 **“Construction debris and waste”** shall mean any unwanted, useless, abandoned, discarded or rejected goods or materials of any kind that are normally generated on a construction site other than hazardous materials.
- 1.4 **“Hazardous material”** shall mean a material which, by reason of its properties, is a hazard to health or to the environment and which is explosive, gaseous, flammable, poisonous, radioactive, corrosive, oxidizing or leachable or is designated as a hazardous material, and any object classed by any law or regulation as a hazardous material.
- 1.5 **“Household hazardous material”** shall mean a hazardous material generated by residential domiciles.
- 1.6 **“Household waste”** shall be used in its usual meaning and includes, without in any way limiting the generality of the foregoing, any solid residue from a house, store or building generated in or from residential domiciles other than hazardous materials.

- 1.7 **"Industrial hazardous material"** shall mean all hazardous material that are not generated by residential domiciles.
- 1.8 **"Industrial waste"** shall mean any garbage other than household waste and hazardous material and includes, without in any way limiting the generality of the foregoing, general construction debris and waste as well as industrial, commercial and institutional waste.
- 1.9 **"Person"** shall mean any physical person, whether a municipal citizen or not, a company, partnership, firm, corporation, association or public body.
- 1.10 **"Waste container"** shall mean a garbage box, garbage room or dumpster.
- 1.11 **"Waste generator"** shall mean the person, both natural and legal, that produces waste.

2. MUNICIPAL SOLID WASTE DISPOSAL SITE

- 2.1 A municipal solid waste disposal site is hereby officially created.

3. HOURS OF OPERATION

- 3.1 The hours of operation of the municipal solid waste disposal site shall be as follows:

Summer hours (from May to November)

Monday to Friday: from 9:00 a.m. to 6:00 p.m.
Saturday: from 10:00 a.m. to 4:00 p.m.
Sunday: from 10:00 a.m. to 4:00 p.m.

Winter hours (from December to April)

Monday to Friday: from 9:00 a.m. to 4:00 p.m.
Saturday: from 10:00 a.m. to 4:00 p.m.
Sunday: from 10:00 a.m. to 4:00 p.m.

- 3.2 The municipal solid waste disposal site shall be closed on Sundays and any statutory holiday.
- 3.3 Service outside regular hours shall be referred to as a recall, and each recall shall be subject to an extra charge of one hundred fifty dollars (\$150).

4. OPERATION OF THE MUNICIPAL SOLID WASTE DISPOSAL SITE

- 4.1 The municipality is in charge of the operation of the municipal solid waste disposal site and, without in any way limiting the generality of the foregoing, the only person allowed to monitor the burning of garbage.
- 4.2 Whoever wants to personally dump household waste into the municipal solid waste disposal site must obtain the prior written approval of the authorized officer.
- 4.3 Whoever wants to personally dump industrial waste at the municipal solid waste disposal site must obtain the prior written approval of the authorized officer and must pay the rate set forth in Appendix I, which forms an integral part of this by-law.
- 4.4 All recoverable or salvageable materials must be stored by type of material in the identified areas within the municipal solid waste disposal site.

- 4.5 Whoever damages the roads, signage, fencing or the infrastructures found within the municipal solid waste disposal site will be held responsible and will be charged "at cost" for work performed by or on behalf of the municipality in order to repair the damages.

5. OBLIGATIONS

- 5.1 Every waste generator shall maintain, in good condition, in each location he/she uses, sufficient covered or enclosed waste containers to contain the solid waste normally originating at that location during the course of one week.
- 5.2 All waste containers shall be accessible from the public roadway.
- 5.3 All waste deposited in a waste container must first be placed in a garbage bag.
- 5.4 Each person shall maintain, at his own expense, unimpeded access to his waste containers.

6. CONSTRUCTION DEBRIS AND WASTE

- 6.1 Any construction or building material being used or stored on private property must be stored on the said property, in a neat and orderly fashion otherwise it will be defined as construction debris and waste under the terms of this by-law.
- 6.2 All reusable construction debris and waste must be offered and advertised to the general public for a minimum period of 48 hours prior to disposal at the municipal solid waste disposal site in accordance with the following dispositions.
- 6.3 Whoever is required to dump construction debris and waste at the municipal solid waste disposal site must obtain the prior written approval of the authorized officer and must pay the rate set forth in Appendix 1, which forms an integral part of this by-law and may be modified by a resolution of the Council.
- 6.4 Except as provided under subsection 6.5, all debris and waste on a construction or work site must be segregated and placed in covered containers, on a daily basis, then hauled in a covered conveyance to the municipal solid waste disposal site within reasonable delay.
- 6.5 Where a waste container is not available, all debris and waste on a construction or demolition site shall be segregated, hauled in a covered conveyance and disposed of at the municipal solid waste disposal site on a daily basis.
- 6.6 If the waste generator fails to dispose properly of said construction debris and waste within 48 hours of a written notice from the authorized officer, the municipality may dispose of the construction debris and waste at the expense of the waste generator.

7. HAZARDOUS MATERIAL

- 7.1 No one shall indiscriminately dispose of hazardous material.
- 7.2 No one is allowed to dump hazardous material into the municipal solid waste disposal site.
- 7.3 No person shall dispose of hazardous material in any waste container or any other place without the express authority of the authorized officer who shall designate the manner and place in which it shall be disposed of.
- 7.4 Collection, transportation, handling, storage and disposal of industrial hazardous material is the sole responsibility of the waste generator and must be done in accordance with the laws and regulations in effect in the Province of Québec. Centers for collection, storage and

handling of industrial hazardous material are available in Nunavik prior to transportation and disposal south of the 55th parallel.

- 7.5 Household hazardous material shall be stored by the waste generator until the municipality holds a "household hazardous material collection" when these wastes shall be brought to an area prescribed by the authorized officer for disposal.
- 7.6 Domestic and commercial appliances must be emptied of all hazardous materials (including gases and oils) before being sent to the municipal solid waste disposal site. These hazardous materials must be contained, stored and disposed of in accordance with federal and provincial regulations.
- 7.7 If the waste generator fails to dispose properly of said hazardous material within 48 hours of a written notice from the authorized officer, the municipality may dispose of the hazardous material at the expense of the waste generator.

8. ASBESTOS

- 8.1 No one shall dispose of materials that contain asbestos at the municipal solid waste disposal site or any other place.
- 8.2 All materials that contain asbestos must be sent to an authorized disposal site south of the 55th parallel.

9. ASPHALT SHINGLES

- 9.1 No one shall dispose of asphalt shingles at the municipal solid waste disposal site or any other place.
- 9.2 All asphalt shingles must be sent to an authorized disposal site south of the 55th parallel.

10. CONTAMINATED SOIL

- 10.1 No one shall dispose of contaminated soil at the municipal solid waste disposal site.
- 10.2 All contaminated soil must be sent to a treatment center for decontamination according to the laws and regulations in effect in the Province of Quebec. Treatment centers for decontamination are available in Nunavik and south of the 55th parallel.
- 10.3 Collection, transportation, handling, storage and disposal of contaminated soil is the sole responsibility of the waste generator and must be done in accordance with the laws and regulations in effect in the Province of Québec.

11. MOTORIZED VEHICLES

- 11.1 No one shall dispose of a motorized vehicle without the prior written approval of the authorized officer.
- 11.2 All motorized vehicles must be emptied of all hazardous materials prior to disposal at the municipal solid waste disposal site.
- 11.3 No one shall keep on its lot one or several motorized vehicles which are not in working condition fabricated more than seven (7) years previously.
- 11.4 No person shall keep tires outside of a building.

12. NUISANCE CAUSED ON PUBLIC PROPERTY

- 12.1 Any person who soils public property, including, but not limited to roads or streets, laneways, alleys, or public buildings, by depositing there or throwing waste, paper, empty bottles, empty cans, foul substances, scrap metal, dirty waters, oil, contaminants, construction materials or any other object, material or substance shall constitute a nuisance.
- 12.2 Any person who soils public property must clean the said premises.
- 12.3 Cleaning must be immediately performed or, depending on circumstances, within a deadline prescribed by the authorized officer.
- 12.4 If the person who soiled public property fails to clean up the soiled public property within 48 hours of a written notice from the authorized officer, the municipality may clean up the soiled public property at the expense of the person responsible.

13. INSPECTION OF PROPERTY

- 13.1 An authorized officer has the right, if he believes on reasonable grounds that an offence against this by-law has been committed, to visit and examine all moveable and immovable property, as also the interior or exterior of any house, building or edifice, in order to ascertain whether his by-law has been contravened.
- 13.2 The owner, lessees or occupants of the property shall allow the authorized officer to make such a visit or examination within normal business hours.

14. PENALTIES

- 14.1 Every person who contravenes any of sections 5.1 to 5.4 and 10.1 of this by-law commits an offence and is liable, upon penal proceedings, to a minimum fine of fifty dollars (\$50), with costs. Each day of infringement constitutes a separate offence.
- 14.2 Every person who contravenes any of sections 4.1 to 4.4, 6.1 to 6.4, 7.1 to 7.6, 8.1 and 9.1 to 9.4 of this by-law commits an offence and is liable, upon penal proceedings, to a fine of three hundred dollars (\$300), with costs. Each day of infringement constitutes a separate offence.
- 14.3 The Court convicting a person for the breach of any section of this by-law may, in addition to any fine it may impose, issue an order to enjoin that person to refrain from committing any further such offence and/or cease to carry on any activity specified in the order and/or, if such person is the holder of a permit, license or certificate granted under this by-law, suspend such permit, license or certificate for the period that it deems appropriate, or revoke the same, or prohibit the renewal thereof during the period that it deems appropriate.
- 14.4 An authorized officer may issue a statement of offence pursuant to this by-law.
- 14.5 Delays for the payment of penalties and costs imposed by virtue of the present section and consequences of failure to pay aforementioned penalties and costs are established in accordance with the provisions of the *Code of penal procedure of Québec* (CQLR, c. C-25.1).

15. APPLICATION

- 15.1 The provisions of this by-law apply to the whole territory under the jurisdiction of the municipality.

16. REPEAL OF PREVIOUS BY-LAW

- 16.1 This by-law supersedes and replaces any previous by-law enacted by the Council, for the same purposes, and any such by-law is hereby repealed.

17. COMING INTO EFFECT

- 17.1 Should any section of this by-law be totally or partially voided by a Court, its other provisions shall remain valid and in force.
- 17.2 The present by-law shall come into effect the date of its publication in accordance with section 138 of the Kativik Act.

18. VERSIONS

- 18.1 In the event of a discrepancy between the English, French and Inuktitut versions, the English version shall prevail.

19. COPY

- 19.1 Once published, the Secretary-Treasurer shall transmit a copy of the present by-law without delay to the Kativik Regional Government as per section 160 of the Kativik Act.

IN FAVOUR:

OPPOSED:

ABSTENTIONS:

ABSENTEES:

DATE OF ADOPTION:

August 8th 2023

MAYOR'S SIGNATURE:

(S) *[Signature]*

SECRETARY-TREASURER'S SIGNATURE:

(S) *Pasatsiatanag*

DATE OF PUBLICATION:

August 14th 2023



APPENDIX I

RATES APPLICABLE TO INDUSTRIAL, COMMERCIAL, INSTITUTIONAL (ICI) AND CONSTRUCTION WASTE DUMPING UNDER SECTION 4.5, 6.2 and 7.4

RATES FOR DISPOSAL OF SEGREGATED CONSTRUCTION DEBRIS (\$100/m³)

1.	Pick-up truck (4 X 8 X 2 feet) $\pm 2\text{m}^3$	\$200/load
2.	Pick-up extension (Trailer or equivalent)	\$200/load
3.	Six-wheel truck ($\pm 6\text{m}^3$)	\$500/load
4.	Ten-wheel truck ($\pm 12\text{m}^3$)	\$1100/load
5.	Articulated truck ($\pm 24\text{m}^3$)	\$2200/load
6.	Loader (Bucket)	\$200/load
7.	Contained construction material	\$10/m ³
8.	General rate for bulky waste	\$10/m ³

OTHER RATE PER ITEM

9.	Car / Truck body	\$400
10.	Snowmobile / ATV	\$200
11.	Large Appliances (white goods including water heater tanks)	\$125
11.	Fridge/ Freezer /Air Conditioning Units (including Freon Removal)	\$200
12.	Automotive Battery	\$50
13.	Oil tank	\$100
14.	Drum (empty)	\$30
14.	Tires	\$35
15.	Oversized tires ($\geq 48.5''$)	\$500
16.	Water and sewage reservoir (empty)	\$200

OTHER INDUSTRIAL HAZARDOUS MATERIAL DISPOSAL IS THE SOLE RESPONSIBILITY OF THE WASTE GENERATOR

N.B.: The above does not include rates for equipment rental and manpower.

Contract prices available upon request.



WASTE DISPOSAL LOG SHEET

DATE	PERSON IN CHARGE	COMPANY	RATE BY #	ESTIMATE VOLUME	SIGNATURE

Rates for disposal of segregated debris (100\$/m3) 1m3= 35,31 cubic feet

1. Pick-up truck (4X8X2 feet) ±12m3	\$200/load	11. Large Appliances (white goods including water heater tanks)	\$125
2. Pick-up extension (Trailer or equivalent)	\$200/load	12. Fridge/ Freezer /Air Conditioning Units (including Freon Removal)	\$200
3. Six-wheel truck (±6m3)	\$500/load	13. Automotive Battery	\$50
4. Ten-wheel truck (±12m3)	\$1100/load	14. Oil tank	\$100
5. Articulated truck (±24m3)	\$2200/load	15. Drum (empty)	\$30
6. Loader (Bucket)	\$200/load	16. Tires	\$35
7. Contained construction material	\$100/m3	17. Oversized tires (≥48.5")	\$500
8. General rate for bulky waste	\$100/m3	18. Water and sewage reservoir (empty)	\$200
9. Car / Truck body	\$400	19.	
10. Snowmobile / ATV	\$200	20.	

Appendix J (Answer to QC-18)

Technical note – Atmospheric dispersion – OLM method (in French)

NOTE TECHNIQUE

Nouvelle centrale thermique sur le territoire du village nordique de Kangiqsujuaq Étude d'impact sur l'environnement et le milieu social (ÉIES)

DISTRIBUTION

Yannick Lafleur, Hydro-Québec

DATE

28 mai 2024

AUTEUR

Eric Delisle, AtkinsRéalis

PROJET N°

687307_EG_L08_00

OBJET

Résultats de simulation de la dispersion atmosphérique en utilisant la méthode de conversion OLM et considérant la nouvelle zone industrielle

À la suite du dépôt de l'étude mentionnée en objet, le ministère de l'Environnement, de la Lutte contre les changements climatiques, de la Faune et des Parcs (MELCCFP) a émis une série de questions et de commentaires. Pour l'étude de dispersion atmosphérique, le MELCCFP demande à la question 18 de reprendre les simulations de la dispersion atmosphérique pour le NO₂ en utilisant la méthode de conversion du NO en NO₂ « *Ozone Limiting Method (OLM)* » plutôt que la méthode « *Plume Volume Molar Ratio Method (PVMRM)* », tout en considérant des concentrations initiales de NO₂ plus faibles et des concentrations d'ozone légèrement différentes, comme suit :

Environnement	O ₃ [µg/m³]			NO ₂ [µg/m³]		
	1 heure	24 heures	Annuelle	1 heure	24 heures	Annuelle
Urbain	100	70	40	60	40	25
Rural	110	80	50	40	30	15
Nordique	110	90	50	20	15	5

Les simulations pour le NO₂ ont donc été reprises en considérant la méthode de conversion OLM pour l'estimation de la conversion du NO en NO₂ et en considérant les concentrations d'ozone et de NO₂ pour un milieu nordique du tableau précédent.

Depuis le dépôt de l'EIES, une modification au plan d'aménagement du territoire autorisée par le conseil du village de Kangiqsujuaq et qui sera intégré dans le futur plan de zonage prévoit la création d'une zone industrielle entourant le site proposé pour la nouvelle centrale. La création de cette zone a été considérée dans les nouvelles simulations, en ajoutant des récepteurs (points de calcul) aux 25 m sur son pourtour, et dans la nouvelle interprétation des résultats pour le NO₂. Rappelons que les normes de qualité de l'atmosphère ne sont pas applicables dans une zone industrielle exempte d'établissement publics ou de résidences.

NOTE TECHNIQUE

Les résultats pour le NO₂ des nouvelles simulations sont présentés en annexe sous forme de tableaux et cartes. Les tableaux 1 et 2 présentent les concentrations maximales calculées dans l'air ambiant respectivement pour les points d'impact maximum et pour les quatre récepteurs sensibles du village. Pour fin de comparaison, les résultats de l'étude de dispersion précédente sont aussi présentés. Les concentrations maximales calculées dans l'air ambiant, incluant les concentrations initiales, sont présentées aux cartes 3 à 5¹ respectivement pour les maximums horaires, journaliers et annuels sur une partie du domaine de simulation incluant le village de Kangiqsujuaq. Les limites de la nouvelle zone industrielle sont affichées sur ces cartes.

Les résultats obtenus avec la méthode OLM sont significativement plus faibles que ceux obtenus avec la méthode PVMRM pour les récepteurs près de la centrale. En excluant les résultats dans la nouvelle zone industrielle, les nouveaux résultats présentés au tableau sont beaucoup plus faibles que ceux présentés dans l'ÉIES et il n'y plus de dépassements des normes horaires ou journalières prévus par les simulations. Aux récepteurs sensibles du village (tableau 2), les nouvelles concentrations calculées dans l'air ambiant avec la méthode OLM sont légèrement supérieures à celles obtenues avec la méthode PVMRM pour la contribution de la centrale, mais les résultats en tenant compte des nouvelles concentrations initiales sont plus faibles qu'auparavant pour les moyennes journalières et annuelles. Peu importe les méthodes, les résultats au village demeurent nettement sous les normes de qualité de l'atmosphère.

Pour conclure, il n'y a plus de dépassements des normes prévus dans l'air ambiant pour le NO₂ à proximité de la centrale et l'évaluation des impacts sur la qualité de l'air du village et la santé de ses habitants demeure identique à celle de l'ÉIES.

Espérant le tout selon vos attentes, nous vous prions d'agréer, Monsieur, l'expression de nos meilleurs sentiments.

Préparée par :

Vérifiée par :



Eric Delisle, B. Sc. A.
Spécialiste senior – Qualité de l'air
Environnement

Jenny Vieira, ing
Directrice, Acoustique, air et changements climatiques
Environnement

p. j. Annexes

¹ Cette numérotation des cartes correspond aux cartes de l'étude de dispersion soumise avec l'ÉIES de juillet 2023.

Annexe – Tableaux et cartes

Tableau 1 Concentrations maximales de NO₂ calculées dans l'air ambiant

Contaminant (CAS)	Période	Concentration maximale calculée (A)			Concentration initiale (B)		Concentration maximale totale (A+B)		Nb. maximum de dépassements de la norme *	Norme (µg/m³)
		Lieu par rapport à la centrale	(µg/m³)	% Norme	(µg/m³)	% Norme	(µg/m³)	% Norme		
Résultats présentés dans l'EIES, méthode PVMRM, sans zone industrielle										
NO ₂ (10102-44-0)	1 heure	Limite sud de la plateforme	1 019	246 %	50	12 %	1 069	258 %	370	414
	24 heures	Limite sud de la plateforme	395	191 %	30	14 %	425	206 %	24	207
	1 an	75 m à l'est de la plateforme	21	20 %	10	9,7 %	31	30 %	0	103
Nouvelles simulations, méthode OLM, avec zone industrielle, nouvelles concentrations initiales										
NO ₂ (10102-44-0)	1 heure	Limite de la zone industrielle à l'est	341	82 %	20	4,8 %	361	87 %	0	414
	24 heures	Limite de la zone industrielle au SSE	133	64 %	15	7,2 %	148	71 %	0	207
	1 an	Limite de la zone industrielle à l'est	15	15 %	5	4.9 %	20	20 %	0	103

*: Nombre de dépassements au même récepteur, en heures ou en jours sur 5 ans de simulation

NOTE TECHNIQUE

Tableau 2 Concentrations maximales de NO₂ calculées dans l'air ambiant aux récepteurs sensibles du village

Contaminant (CAS)	Période	Concentration maximale calculée (A)		Concentration initiale (B)		Concentration maximale totale (A+B)		Norme (µg/m³)
		(µg/m³)	% Norme	(µg/m³)	% Norme	(µg/m³)	% Norme	
Résultats présentés dans l'EIES, méthode PVMRM, sans zone industrielle								
NO ₂ (10102-44-0)	1 heure	77	19 %	50	12 %	127	31 %	414
	24 heures	15	7,1 %	30	14 %	45	22 %	207
	1 an	0,66	0,64 %	10	9,7 %	11	10 %	103
Nouvelles simulations, méthode OLM, avec zone industrielle, nouvelles concentrations initiales								
NO ₂ (10102-44-0)	1 heure	123	30 %	20	4,8 %	143	35 %	414
	24 heures	18	8,7 %	15	7,2 %	33	16 %	207
	1 an	0,93	0,90 %	5	4,9 %	6	5,8 %	103



Composantes du projet

- Centrale thermique projetée
- Bâtiment considéré dans la modélisation
- Point d'émission (cheminée)
- Plateforme et infrastructure projetées
- Zone industrielle proposée

Qualité de l'air

- Zone construite (haut de talus)
- Récepteur sensible

Résultats de la modélisation

Contribution du projet, incluant la concentration initiale

- Concentration maximale calculée ($\mu\text{g}/\text{m}^3$)
- Concentration maximale calculée dépassant la norme horaire ($\mu\text{g}/\text{m}^3$)

Norme horaire : $414 \mu\text{g}/\text{m}^3$.
Concentration initiale : $20 \mu\text{g}/\text{m}^3$.

Infrastructures

- Centrale thermique existante
- Aéroport

Nouvelle centrale à Kangiqsujaq

Concentrations maximales horaires de NO_2 calculées (méthode OLM) dans l'air ambiant autour de la centrale ($\mu\text{g}/\text{m}^3$)

Sources :
Orthophoto, résolution 7 cm, MERN Québec, © Gouvernement du Québec, 2016
Orthophoto, résolution 15 cm, MRNF Québec, © Gouvernement du Québec, 2010
Ortho-image (RapidEye), résolution 5 m, © Gouvernement du Québec, 2013
Adresses Québec, MERN Québec, 1^{er} avril 2021
Adresses Québec réseau+, MERN Québec, 1^{er} mars 2021
BGAP, HQIESP, janvier 2020
Données de projet, Hydro-Québec, août 2023

Cartographie : AtkinsRéalis
Fichier : 5119_eic3_slq_014_NO2h_240508.mxd

0 200 400 m
MTM, fuseau 7, NAD83 (SCRS)

Mai 2024

Carte 3





- Composantes du projet**
- Centrale thermique projetée
 - Bâtiment considéré dans la modélisation
 - Point d'émission (cheminée)
 - Plateforme et infrastructure projetées
 - Zone industrielle proposée

- Qualité de l'air**
- Zone construite (haut de talus)
 - Récepteur sensible

Résultats de la modélisation

Contribution du projet, incluant la concentration initiale

—50— Concentration maximale calculée ($\mu\text{g}/\text{m}^3$)

Norme journalière : $207 \mu\text{g}/\text{m}^3$.
Concentration initiale : $15 \mu\text{g}/\text{m}^3$.

- Infrastructures**
- Centrale thermique existante
 - Aéroport

Nouvelle centrale à Kangiqsujuaq

Concentrations maximales journalières de NO_2 calculées (méthode OLM) dans l'air ambiant autour de la centrale ($\mu\text{g}/\text{m}^3$)

Sources :
Orthophoto, résolution 7 cm, MERN Québec, © Gouvernement du Québec, 2016
Orthophoto, résolution 15 cm, MRNF Québec, © Gouvernement du Québec, 2010
Ortho-image (RapidEye), résolution 5 m, © Gouvernement du Québec, 2013
Adresses Québec, MERN Québec, 1^{er} avril 2021
Adresses Québec réseau+, MERN Québec, 1^{er} mars 2021
BGAP, HQIESP, janvier 2020
Données de projet, Hydro-Québec, août 2023

Cartographie : AtkinsRéalis
Fichier : 5119_eic4_slq_015_NO2_240508.mxd

0 200 400 m
MTM, fuseau 7, NAD83 (SCRS)

Mai 2024

Carte 4





Composantes du projet

Centrale thermique projetée

Bâtiment considéré dans la modélisation

Point d'émission (cheminée)

Plateforme et infrastructure projetées

Zone industrielle proposée

Qualité de l'air

Zone construite (haut de talus)

Récepteur sensible

Résultats de la modélisation

Contribution du projet, incluant la concentration initiale

15

Concentration maximale calculée (µg/m³)

Norme annuelle : 103 µg/m³.
Concentration initiale : 5 µg/m³.

Infrastructures

Centrale thermique existante

Aéroport

Nouvelle centrale à Kangiqsujaq

Concentrations maximales annuelles de NO₂ calculées (méthode OLM) dans l'air ambiant autour de la centrale (µg/m³)

Sources :
Orthophoto, résolution 7 cm, MERN Québec, © Gouvernement du Québec, 2016
Orthophoto, résolution 15 cm, MRNF Québec, © Gouvernement du Québec, 2010
Ortho-image (RapidEye), résolution 5 m, © Gouvernement du Québec, 2013
Adresses Québec, MERN Québec, 1^{er} avril 2021
Adresses Québec réseau+, MERN Québec, 1^{er} mars 2021
BGAP, HQIESP, janvier 2020
Données de projet, Hydro-Québec, août 2023

Cartographie : AtkinsRéalis
Fichier : 5119_eic5_slq_016_NO2a_240508.mxd

0 200 400 m

MTM, fuseau 7, NAD83 (SCRS)

Carte 5

Mai 2024

Appendix K (Answer to QC-18)

Proposed master plan (confidential (under separate cover))

Appendix L (Answer to QC-18)

Municipality's resolution 2024-12

NORTHERN VILLAGE OF KANGIQSUJUAQ

Resolution No. 2024- 12

Concerning the site of Hydro-Quebec's thermal generating station.

- Whereas** Hydro-Québec is in the planning stages for the construction of a new thermal generating station within the municipality;
- Whereas** on January 25, 2024, representatives from Hydro-Quebec engaged in a meeting with the Council and Nunaturlik Landholding Corporation to provide a comprehensive project update and present the findings of the atmospheric dispersion study conducted as part of the environmental impact assessment;
- Whereas** based on simulations, the concentrations of gaseous and particulate contaminants in the air, as well as Québec criteria on odors, meet the standards outlined in the *Clean Air Regulation* (RRQ, c. Q-2, r. 4.1), except for nitrogen dioxide (NO₂);
- Whereas** potential NO₂ exceedances are identified in a context where the community's masterplan and zoning bylaw do not currently encompass industrial usage near the proposed generating station, posing challenges in obtaining necessary government approvals for the thermal generating station project;
- Whereas** Hydro-Quebec has presented a plan, a copy of which is appended to this resolution, delineating the boundaries of a future industrial area conducive to NO₂ exceedances under specific atmospheric conditions in winter, characterized by very light winds and nocturnal atmospheric stability;
- Whereas** pursuant to Section 176 of *An Act respecting Northern villages and the Kativik Regional Government* (CQLR, c. V-6.1; hereinafter the Kativik Act); and By-law No. 04-06 adopted by the Council on September 21, 2004, the Northern Village of Kangiqsujaq adopted a master plan for the municipality;
- Whereas** the Northern Village of Kangiqsujaq is presently in the process of reviewing its master plan and preparing a zoning by-law to implement its objectives;
- Whereas** the area surrounding the proposed project location is currently occupied by industrial activities and will eventually be designated for industrial or high-intensity usage in the upcoming masterplan and zoning by-law;
- Whereas** the Council has reviewed Hydro Québec's plan and confirm its intention that the proposed industrial zone that surround the projected boundaries of Hydro-Quebec's thermal generating station be incorporated into the industrial or high intensity usage in the development of the forthcoming masterplan and zoning by-law.

It is therefore resolved that:

1. the preamble be an integral part of this resolution;
2. the proposed industrial zone that surround the projected boundaries of Hydro-Quebec's thermal generating station be incorporated into the industrial or high intensity usage area in the forthcoming masterplan and zoning by-law;

3. the Mayor be authorized to sign any and all documents required to implement this resolution;
4. a copy of this resolution be sent by the Secretary-Treasurer to Hydro-Québec and the Kativik Regional Government's Landuse section;
5. this resolution come into effect on the day of its adoption.

MOVED BY:

Qiallak Nappaaluk

SECONDED BY:

Lydia Kiatainag

IN FAVOUR:

6

OPPOSED:

0

ABSTENTIONS:

0

ABSENTEES:

1

DATE OF ADOPTION:

March 5, 2024

MAYOR'S SIGNATURE:

(S)

SECRETARY-TREASURER'S SIGNATURE: (S)

Tasakiatinag





Printed on paper made in Québec from 100% post-consumer recycled fibre.

2024E0594-A

