Hydro Québec
Équipement et services partagés

Société d'énergie de la Baie James

STANDARD ENVIRONMENTAL CLAUSES

Environnement
Direction – Ingénierie de production

May 2016

The electronic version of this document is available on the Environnement, Direction – Ingénierie de production intranet and on the SGE [energy management system] sites of Direction principale – Projets de production and Direction principale – Projets de transport et construction, Hydro-Québec Équipement et services partagés – SEBJ.

TABLE OF CONTENTS

1 GENERAL

1.1 Communication of environmental requirements

The Contractor shall take part in a site startup meeting to learn about the applicable environmental requirements. It must then organize an information session to brief its own personnel and its subcontractors' personnel on these requirements, and must also brief any new employee. Upon request by Hydro-Québec, the Contractor shall prove that these sessions have been organized.

The Contractor shall incorporate an environmental component into its health and safety breaks and upon request, must prove that it has done so.

1.2 Environment officer

The Contractor shall designate an on-site environment officer to ensure that all contractual standards and provisions are complied with throughout the term of the contract. The environment officer must have the necessary competence, autonomy, availability, knowledge of legislation, and authority to carry out his/her functions.

1.3 Temporary facilities

Before installing its temporary facilities, the Contractor shall submit a file to Hydro-Québec for compliance verification, containing the plans for the facilities, copies of all required permits and any other relevant documents, including all correspondence concerning the facilities. The planned temporary facilities include wastewater treatment and drinking water supply systems, fuel depots, concrete plants, stone crushers and residual hazardous material (RHM) storage areas.

1.4 Exception request

Any request for an exception to these environmental clauses must be submitted sufficiently far in advance to enable Hydro-Québec to analyze it and, if need be, obtain the necessary government authorizations.

Acceptance or approval by Hydro-Québec of an exception to these clauses does not relieve the Contractor of its legal obligations concerning the environment.

1.5 Environmental non-compliance

Hydro-Québec shall notify the Contractor in writing when it finds evidence of a breach of the environmental causes. The non-compliance notice will indicate the nature of the breach, as well as the corrective work required and the time allowed to complete it. Should the contractor fail to carry out the corrective measures requested within the time allowed, Hydro-Québec reserves the right to perform the work itself, or to have the work carried out by a third party, at the Contractor's expense.

1.6 Use of maintenance products

The Contractor shall use biodegradable maintenance products in the site buildings.

1.7 Correspondence with government authorities

The Contractor shall submit to Hydro-Québec all correspondence it has had with the government authorities.

2 NOISE

2.1 General principles

The Contractor shall comply with all municipal regulations relating to permissible work schedules and noise. In all cases, the Contractor shall give priority to reducing noise at the source. The Contractor shall not authorize or tolerate any noise-emitting activities or operations that are not required to complete the job.

2.2 Plant maintenance

The Contractor shall ensure that mechanical hammers, drills, compressors, pile drivers, crushers and any other plant that could constitute a substantial source of noise are maintained regularly. It shall also make sure that the plant's exhaust mufflers are always in good condition.

2.3 Construction site noise levels

The following provisions shall apply only when there are no other more restrictive requirements or requirements that have priority stated in municipal regulations.

The Contractor shall take all necessary measures to ensure that the site is quiet and that residents can sleep, both in the evening (between 7 and 10 p.m.) and at night (between 10 p.m. and 7 a.m.). The one-hour assessment noise level, as defined in Instruction Note 98-01 on noise by the Ministère du Développement durable, de l'Environnement et de la Lutte contre les changements climatiques (MDDELCC) [Québec Department of Sustainable Development, Environment and the Fight against climate change], must be 45 dBA or less, or must be equivalent to the ambient noise level if the construction site were not there, if the site's noise level is higher than 45 dBA. This noise limit shall be complied with at all locations used for residential or equivalent purposes (i.e., hospital, institution, school, etc.).

In the case of evening work (i.e., work carried out between 7 and 10 p.m.), should constraints be such that the Contractor cannot perform the work in compliance with the set noise limits, the Contractor must submit an exception request to Hydro-Québec. Despite approval of the exception, the assessment noise level over one hour shall not exceed 55 dBA. No exceptions shall be granted for night work (between 10 p.m. and 7 a.m.), except in emergencies or absolute necessity.

3 QUARRIES AND SANDPITS

3.1 General principles

The Contractor shall take all necessary measures to comply with the *Regulation respecting pits and quarries* and, where required, with the *Regulation respecting standards of forest management for forests in the domain of the State (RNI)*. Before crushing or screening any materials in a quarry or increasing production in a quarry or sandpit, the Contractor shall obtain authorization from the MDDELCC.

The Contractor shall operate existing quarries or sandpits that have been authorized by the MDDELCC, or quarries or sandpits whose opening is provided for in the Contract under a certificate of authorization granted by the MDDELCC. To open or expand a quarry or sandpit, the Contractor must submit a written request to Hydro-Québec. If it considers the request justified, Hydro-Québec will either take the necessary steps to obtain the required certificate or will ask the Contractor to do so. Hydro-Québec cannot be held responsible for the time taken to issue the certificate of authorization, or for any refusal on the part of the competent authorities to issue it.

The Contractor shall strip the quarries and sandpits in a progressive manner, in order to minimize the area disturbed. The topsoil shall be stored in piles at the edge of the site or clearing.

During operation of a quarry or sandpit, the Contractor shall take measures to limit erosion caused by runoff and prevent sediment in runoff water from reaching a lake or watercourse.

3.2 Access to operating area

The Contractor may build one or two access roads per operating area, in accordance with the routes indicated by Hydro-Québec. The width of the access roads shall be no greater than 2.5 times the width of the largest vehicle used to transport materials. Insofar as possible, the road routes (curved, diagonal, etc.) must hide the presence of the operation.

3.3 Operating area boundaries

At the start of the work, the Contractor shall clearly indicate the boundaries of the operating area using markers (i.e., pegs, ribbons attached to trees or any other visual mark on trees). These markers shall remain in place and be visible until the site is restored.

In quarries and sandpits that will not be flooded, the Contractor shall preserve a strip of land around the periphery of the operating area (inside the authorized perimeter), or at any other location designated by Hydro-Québec, for the purpose of stockpiling stripped topsoil. The topsoil shall be used to restore the site. Dumping stripped soil in the wooded area around a quarry or sandpit is prohibited.

3.4 Site restoration

The Contractor is responsible for restoring quarries and sandpits after operation. Residual and unusable materials, machine parts and any other items brought to the site shall be removed. The land shall then be covered with the topsoil stockpiled at the site for this purpose. In addition, the worksite roads and machine-compacted areas shall be scarified to a minimum depth of 25 cm to encourage vegetation growth.

In sandpits that will be flooded, the Contractor shall grade the slopes at a maximum angle of 30° down to the pit's lowest operating level. The bottom of the sandpit shall be levelled only if it lies above the minimum level of the planned bay or reservoir or less than 1 m beneath it.

4 LAND CLEARING

4.1 General principles

On public lands, the Contractor must take all necessary measures to comply with the *Forest Occupancy Act* and related regulations, particularly the *Regulation respecting standards of forest management for forests in the domain of the State* (RNI), the *Forest Protection Regulation* and the *Clean Air Regulation*. Moreover, the Contractor shall comply with the provisions set out in the forest management permit issued by the Ministère de l'Énergie et des Ressources naturelles [Québec Department of Energy and Natural Resources].

On private lands, the Contractor shall comply with section 1 of the *Tree Protection Act*. Consequently, the Contractor shall ask Hydro-Québec to obtain the consent of the owner before felling or pruning a tree, shrub, tall shrub or coppice. If it is unable to obtain the owner's consent, Hydro-Québec shall provide instructions to the Contractor.

Unless Hydro-Québec has already done so, the Contractor shall use markers to clearly delimit the areas to be cleared that are indicated in the Contract. It shall then request authorization from Hydro-Québec to begin felling trees.

Should it be necessary to secure the area to be cleared, the Contractor shall install temporary barriers and make sure they are maintained. It shall also take measures to protect sensitive elements (i.e., wells, archaeological sites, etc.) that are indicated in the Contract or pointed out by Hydro-Québec.

During land clearing, the Contractor shall take care not to damage the edge of the forest and shall avoid felling trees outside the boundary of the clearing area or near a watercourse. Where necessary, the Contractor shall clear watercourses and riverbanks of cutting residues.

The Contractor is required to preserve one third of the treetops that must be pruned due to damage caused by its land-clearing work.

The Contractor shall not tear out or uproot trees, unless otherwise indicated in the Contract. Felled trees shall be laid on the ground and processed in accordance with the Contract provisions.

4.2 Reservoir clearing

When clearing a future reservoir, the Contractor shall comply with the special technical conditions set out in the Contract and with the applicable land-clearing plans, special plan and forest management permit.

4.3 Plant and traffic standards

For work outside flooding zones, the Contractor shall choose construction machinery suited to the characteristics of the land (i.e., type of soil, time of year, environmental sensitivity, etc.) in order to limit the impact on the environment.

The Contractor shall restrict traffic of its plant on the roads and work areas indicated in the Contract or authorized by Hydro-Québec.

Road construction is prohibited on erosion-prone ground with a slope in excess of 30%, unless prior authorization has been provided by Hydro-Québec.

The Contractor shall fill ruts as the work progresses.

4.4 Work near wooded areas on farmland or in urban areas

The Contractor must preserve the root system of trees and shrubs located in riparian strips and in approaches to watercourse crossings.

It is prohibited to compact soil, backfill or store heavy equipment directly under the dripline of the tree crowns.

If work requires the ground level to be raised or lowered, the Contractor shall do so outside the minimum 3-m strip surrounding the dripline of the tree crowns.

4.5 Recovery of merchantable timber

The Contractor shall recover all trees of merchantable dimensions where required under the Contract. A tree of merchantable dimensions is one that has a diameter at chest height (1.3 m above the ground) equal to or greater than 9.1 cm.

Trees shall be felled, skidded, lopped, polled and then stacked in the same direction, arranged on stringers, on sites that the Contractor has selected beforehand jointly with Hydro-Québec.

4.6 Management of wood waste

Unless Hydro-Québec specifies otherwise, wood waste shall not be buried on site or removed to anywhere other than a site authorized by the MDDELCC and by Hydro-Québec.

In the rights-of-way of access and bypass roads, the Contractor shall dispose of trees of non-merchantable dimensions and cutting residues by one of the following methods approved beforehand by Hydro-Québec:

- Chipping or shredding
- Lopping, crosscutting into 1.2-m logs and storing in a location designated by Hydro-Québec
- Removal to burning areas authorized by Hydro-Québec

4.7 Burning of wood waste

If the Contract provides for the burning of wood waste, the Contractor must proceed in a manner that complies with municipal regulations, the *Forest Occupancy Act* and with the conditions imposed by Québec's forest fire prevention agency, the Société de protection des forêts contre le feu (SOPFEU). If it has to obtain a burning permit, the Contractor must submit it to Hydro-Québec before starting work.

Combustion of stacks of wood waste must be complete.

Under the *Clean Air Act*, the use of tires or oil to assist the combustion of wood waste is prohibited.

4.8 Chipping of wood waste

If the Contract provides for the chipping of wood waste, the Contractor must spread the chips uniformly over the site, without forming heaps, unless another use or disposal method is planned, such as the use of biomass for energy purposes or composting.

The spreading of chips inside the 20-metre-wide strip at the edge of permanent lakes and watercourses and inside the 15-metre-wide strip at the edge of intermittent watercourses is prohibited. The spreading of chips around the perimeter of a future reservoir or bay is also prohibited.

4.9 Vegetation clearing method

Vegetation shall be cleared in accordance with the following guidelines:

- The methods used shall allow for the preservation of topsoil and root systems.
- An area 5 m wide in the middle of the right-of-way shall be completely cleared to enable personnel and equipment to circulate freely within it. This strip shall be kept free of all residues to allow for the unreeling of cables and operation of the line.
- The height of tree stumps within the cleared area shall not exceed 10 cm above the highest root.
- All trees shall be felled so that they fall inside the boundaries of the area to be cleared and do not damage trees adjacent to the right-of-way.

During the work, ruts more than 20 cm deep caused by repeated machinery passes shall be levelled.

In addition, to minimize environmental impacts, vegetation clearing methods will be adapted to each type of environment encountered, especially in sensitive areas.

Method A

Clearing method A shall be used in areas with no sensitive components and on land where forestry equipment can operate without causing erosion. This method consists in the manual or mechanical cutting, for disposal or commercial or other purposes, of all trees, shrubs, tall shrubs and debris more than 30 cm high.

Method A with soil protection (WSP)

This clearing method shall be used to protect wetlands that have sufficient load-bearing capacity to withstand machinery traffic. Work at such sites shall comply with the following:

- Only machinery that exerts little pressure when in contact with the ground shall be used.
- The footprint of the machinery shall occupy no more than 25% of the area where this method is used, with the exception of the main clearing trail.
- All machinery shall use the same trails.
- The creation of ruts shall be strictly limited to the main trail.
- If ruts are forming in the clearing trails, the Contractor shall propose a method to avoid creating them. Should the chosen method fail to work, all machinery shall be stopped, the ruts shall be filled and vegetation shall be cleared using method B.
- No merchantable timber shall be stacked for recovery purposes, other than at sites indicated in the clearing plans, where applicable.

Methods B and B2

Method B is used to protect sensitive elements of the environment and minimize the risk of erosion during land-clearing work. This method consists in felling trees by hand only and recovering them for commercial or other purposes, or disposing of them. Shrubs and brush less than 2.5 m high at maturity shall be preserved, along with the stumps and root systems of felled trees. Method B applies to poor load-bearing terrain, steep slopes and areas near sensitive elements such as erodible soil, peatlands, swamps and other types of wetlands, the shores of lakes and watercourses, and special wildlife habitat areas and their protective vegetation strips.

Areas to be cleared using method B are also subject to the following special requirements:

- The layer of shrubs and tall shrubs made up of all species up to 2.5 m high at maturity shall be preserved within 20 m of permanent watercourses and 5 m of intermittent watercourses, as well as in erosion zones. Machinery traffic is prohibited within this riparian strip, except on a road to a river or stream crossing.
- No recovered merchantable timber shall be stacked inside the cleared areas, but logs to be used to make fascines may be stacked inside the cleared areas.
- Wood waste shall not be burned on site. However, in cases where moving wood waste is likely to cause more damage than burning it on site, Hydro-Québec may mark out burning areas inside the clearing zone.
- Machinery may only be used if Hydro-Québec deems it to have no significant impact on the environment.
- Should mechanical skidding be required, it shall be done using machinery that exerts little pressure when in contact with the ground. Where bearing capacity permits, the machinery shall operate on a single trail no more than 5 m wide.
- Wood waste may be removed by burning or chipping. If the latter method is used, the chips must be spread evenly, without forming heaps.
- In areas with erodible soil and in peatlands and swamps (wetlands), wood waste may be left inside the cleared area as long as Hydro-Québec considers that there is no disadvantage in doing so. The trees may be felled, crosscut into logs up to 1.2 m long, lopped and left in place. An area 5 m wide in the centre of the right-of-way shall be kept clear of all residues. This variant of method B is also referred to as **method B2**.

Method C

Clearing method C applies to sensitive areas. It is used only where conductor clearance over vegetation so permits, along the edges of watercourses and main roads, on steep slopes, or near sensitive elements.

This method consists in the manual cutting of trees that hamper grid operations and the total clearing of a strip 5 m wide to allow for conductor stringing and machinery traffic.

Areas cleared using method C are also subject to the following special requirements:

- Machinery is prohibited in the clearing area, except inside the 5-m-wide centre strip.
- Felled trees shall be recovered or crosscut into logs up to 1.2 m long, lopped and left in place without forming piles.
- A strip 5 m wide in the centre of the right-of-way shall remain clear of all residues.

5 SNOW REMOVAL

5.1 General principles

The Contractor shall take all necessary measures to comply with the *Regulation respecting snow elimination sites* and the Politique sur l'élimination des neiges usées [policy on snow disposal].

The Contractor shall use a minimum amount of de-icing materials and abrasives to ensure worker and public safety. However, abrasives must not be spread on private property, farmland or in any sensitive area designated by Hydro-Québec.

The Contractor shall ensure that its snow removal machinery does not strip the soil.

5.2 Snow dumping sites

The Contractor shall submit its choice of snow dumping sites to Hydro-Québec. As needed, Hydro-Québec will request the necessary authorizations from the regional branch of the MDDELCC.

All snow dumping sites shall be located at least 30 m from any watercourse and any source of drinking water.

The Contractor shall clean up snow dumping sites, either at the end of the work or at snowmelt, as instructed by Hydro-Québec.

5.3 Snow disposal

The Contractor shall use a disposal site authorized by the MDDELCC whenever it is required to remove snow outside the worksite.

6 ACCIDENTAL CONTAMINANT SPILLS

6.1 Response plan

At the start of work, Hydro-Québec will provide a response plan that the Contractor is required to implement in the event of accidental contaminant spills. The Contractor shall display the response plan in a place where it can be seen by all its employees.

The Contractor shall inform its employees of what they must do in the event of a spill and make them aware of the importance of rapid action that complies with the response plan.

6.2 Spill kit

From the start of work, the Contractor shall ensure that it has at least one spill kit available at the worksite. The kit must contain products suited to the worksite characteristics. The number and content of spill kits must be approved by Hydro-Québec. As a minimum, a spill kit must contain the following items:

- 1 barrel or 1 sealed box to store the spill response equipment
- 10 absorbent polypropylene pads (430-cm^3)
- 200 absorbent polypropylene sheets
- 10 absorbent polypropylene socks
- 2 neoprene lids (1 m^2) for sewer manholes
- 5 ten-L bags of treated peat fibre to absorb hydrocarbons
- 10 polythene bags 6 mm thick with a capacity of 205 L for storing contaminated absorbent materials

6.3 Report and procedure

The Contractor shall immediately notify Hydro-Québec of any spill of contaminants, regardless of the quantities spilled, and implement the response plan. Unless otherwise instructed, the Contractor shall also inform the environmental emergency service (Urgence-Environnement line) immediately.

In the event of an accidental contaminant spill, the Contractor shall immediately take the following measures at its own expense:

- Launch the alert procedure
- Secure the area
- Identify the contaminant and take the necessary protection measures before initiating response action
- Stop the leak
- Assess the extent of the spill
- Contain the contaminant
- Recover the contaminant
- Excavate any contaminated soil
- Manage the contaminated soil in accordance with the provisions of the Contaminated Soils clause
- Manage contaminated waste in accordance with the provisions of the Hazardous Materials clause

- Before filling in the excavation, take samples of the soil, if necessary, to ensure that all contaminated materials have been removed and submit the analysis results to Hydro-Québec
- Prepare a spill report and submit it to Hydro-Québec within 24 hours

If the Contractor does not have the required expertise to respond effectively to contaminant spills, it shall contract a company specialized in this type of operation to do so.

If Hydro-Québec considers that the measures implemented by the Contractor are insufficient or inappropriate, it may take management of the spill out of the Contractor's hands, in accordance with the Default – Cancellation section of the general conditions.

7 DRAINAGE

7.1 General principles

During the work, the Contractor shall take the area's natural drainage into account and take all measures necessary to allow for normal water runoff in order to prevent water from accumulating and forming ponds.

If it must build a road, the Contractor shall install a sufficient number of culverts to allow water to flow normally.

If it must create a temporary ditch, the Contractor shall reduce the slope as needed by placing obstacles at regular intervals to prevent erosion.

Where soil drainage or snowmelt may carry sediment into a watercourse, the Contractor shall implement measures to contain or divert the sediment.

7.2 Underground drainage

In areas where there is underground drainage, the Contractor shall comply with the provisions of the Farmland clause.

8 RAW WATER AND DRINKING WATER

8.1 General principles

The contractor responsible for water supply on a site must comply with the *Environment Quality Act*, the *Regulation respecting the quality of drinking water*, the *Regulation respecting bottled water*, the *Water Withdrawals and Protection Regulation* and the *Regulation respecting occupational health and safety.*

Before installing a groundwater catchment facility, the Contractor shall obtain the necessary authorizations from the competent authorities.

8.2 Drinking water quality control

The Contractor shall periodically test the quality of drinking water to ensure that it complies with the standards set out in Schedule I of the *Regulation respecting the quality of drinking water*. The Contractor shall have these tests carried out by qualified or trained personnel and shall forward the analysis results to Hydro-Québec.

In the event of non-compliance with quality standards applicable to drinking water, the Contractor shall notify users and take the necessary steps to correct the situation. The Contractor shall also immediately notify the Hydro-Québec representative, the representatives of the Ministère du Développement durable, de l'Environnement et de la Lute contre les changements climatiques, and the Directeur de la Santé publique [director of public safety] of the region concerned.

The Contractor may post temporary "non-potable water" notices. These notices must be removed once the water becomes fit for drinking again.

9 WASTEWATER

9.1 General principles

The Contractor shall recover wastewater from drilling, rock or overburden excavation, stripping, sawing, grinding, machining, spraying, cleaning, demolition, torch-cutting or welding work. The wastewater shall be filtered, clarified, or treated using any other method approved by Hydro-Québec to ensure its quality.

The Contractor shall also manage the water pumped to dry out the work area.

Before starting work, the Contractor shall inform Hydro-Québec of the wastewater management method it intends to use (i.e., transportation, disposal or treatment of wastewater), indicating the locations of the discharge outlets and storage sites and the name of the companies contracted.

As required, the Contractor shall obtain the necessary authorizations for water treatment or disposal.

9.2 Wastewater management

The Contractor may discharge wastewater into a municipal sewer system, provided that the discharge standards for the municipality concerned are met. It may also discharge wastewater into the river system, provided that the discharge standards for the municipality concerned regarding stormwater drainage are met. In the absence of municipal standards or regulations, the Contractor shall comply with the provisions set out in the Contract, or obtain information from Hydro-Québec concerning the standards to be met.

At the request of Hydro-Québec, the Contractor shall implement a sampling program, indicating sampling frequency, duration, parameters and locations, to demonstrate that wastewater discharges comply with the applicable discharge standards. Sampling shall be conducted by qualified personnel and approved by Hydro-Québec.

If the quality of wastewater does not meet the applicable discharge standards, the Contractor shall either modify its wastewater treatment procedure or its work methods, or discharge the water into a treatment or disposal site authorized by the Ministère du Développement durable, de l'Environnement et de la Lutte contre les changements climatiques. In the latter case, the Contractor shall provide proof that wastewater has been discharged into an authorized treatment or disposal site.

In the case of properties belonging to Hydro-Québec, the Contractor may discharge wastewater directly onto the property, to be filtered by the soil. The Contractor may discharge the wastewater into a watercourse directly or by runoff, if it has proven that the quality of the water meets applicable discharge standards.

10 EXCAVATION AND EARTHWORK

10.1 General principles

The Contractor shall keep stripping, clearing, excavation, filling and levelling of the work areas to a strict minimum to mitigate the impact on the environment. As much as possible, the Contractor shall conform to the terrain's natural topography and prevent erosion.

The Contractor shall ask for and comply with instructions from Hydro-Québec regarding the management of excavated material.

10.2 Service and storage areas

The Contractor shall strip a sufficient surface area of the service and storage sites of fill and excavated material. It shall set the topsoil layer aside and use it to restore the site at the end of the work. The thickness of the topsoil layer to be stripped shall either be stipulated in the Contract or determined on site by Hydro-Québec. The Contractor shall not carry out any earthwork or excavation within a 3-m-wide strip around the dripline of a tree or within a 30-m-wide strip along lakes and watercourses.

After the work, the Contractor shall level service and storage sites in accordance with the topography of the surrounding terrain. In addition, the Contractor shall re-establish drainage and stabilize soil that is sensitive to erosion.

If the Contractor discovers archaeological remains at the site, it shall suspend work and notify Hydro-Québec without delay. The Contractor shall avoid any intervention that could compromise the integrity of the remains discovered.

11 DRILLING AND BORING

11.1 General principles

The Contractor shall set aside the topsoil covering drilling or boring points and put it back in place at the end of the work.

For drilling and boring in wooded areas, the Contractor shall limit the surface area affected by the work as much as possible. The Contractor shall clear the land, crosscut the felled trees into logs 1.2 m long and stack them at the edge of the site, taking care to protect the topsoil.

At the end of the work, if drilling has reached the water table, the Contractor shall fill the hole with gravel or clean sand and plug it with impermeable material to prevent the infiltration of contaminants.

The Contractor shall notify Hydro-Québec without delay if it detects signs of contamination (odor, color, etc.) in a drill hole or borehole.

At the end of the work, the Contractor shall fill bore holes with excavated material, taking care to reconstitute the original geological conditions.

11.2 Drilling residues

If Hydro-Québec determines that drilling residues (drill cores, mud, etc.) are contaminated, the Contractor shall dispose of such residues in accordance with the conditions stipulated for their level of contamination (see the Management options for excavated contaminated soil clause).

The Contractor shall confine the drilling mud discharge area and take the necessary measures to ensure that runoff water is dispersed into the soil or is filtered before reaching a drainage structure, watercourse or lake.

11.3 Work in water and on shores

During work in water and on shores, the Contractor shall continuously monitor the contaminating products it uses. These products shall be kept in sealed containers or, failing this, in a place approved by Hydro-Québec. The Contractor shall make containers or absorbent pads available at the drilling site for the purpose of collecting any leakage of oil or other contaminants.

For work in water and on shores, all lubricants used shall be biodegradable, even at low temperatures. In addition, all casings used for drilling in water must be removed or cut level with the bed of the watercourse.

12 WATERCOURSE CROSSINGS

The Contractor shall comply with the *Politique de protection des rives, du littoral et des plaines inondables* [protection policy for lakeshores, riverbanks, littoral zones and floodplains], the *Forest Occupancy Act,* the *Regulation respecting standards of forest management for forests in the domain of the State (RNI)* and the *Regulation respecting wildlife habitats*.

12.1 Fording

Fording is prohibited unless Hydro-Québec has obtained the required authorizations from the competent government departments.

12.2 Bridges and culverts

The Contractor shall use existing bridges and culverts, making improvements at its own expense if necessary, or build new ones in compliance with the Contract and with applicable laws and regulations.

If the Contractor must install a new bridge or culvert, the location and type of structure shall be determined jointly with Hydro-Québec.

The Contractor shall ensure that the installation of its bridges and culverts creates no ponds, waterfalls or substantial changes in elevation, does not cause flooding and does not hinder the movement of fish.

The Contractor is required to limit fine particulates in the water when it installs or removes abutments, jetties and foundations for its bridges and culverts. Its work method must be submitted to Hydro-Québec for approval.

Bridges must be cleaned regularly to prevent sedimentation in the watercourses.

12.3 Modification of the bed and banks of a watercourse

Modifying the topography of the banks of a watercourse without prior authorization from Hydro-Québec is prohibited. Backfilling of permanent or intermittent watercourses is prohibited.

If there is a risk that the banks will be damaged by the work, the Contractor shall install protection using logs or planks, or use any other protection method approved by Hydro-Québec. The Contractor shall ask Hydro-Québec whether it may use trees cut down near the site to make log protection structures.

Any work requiring intervention in the bed of a watercourse must be carried out as quickly as possible.

12.4 Removal of bridges and culverts

All bridges and culverts used to create temporary access roads shall be removed, unless otherwise specified by Hydro-Québec.

After removal of the bridges and culverts, the Contractor shall re-establish the original profile of the bed and banks of watercourses across the entire riparian strip, stabilize damaged banks in order to counteract erosion and drain water from the mires created by its machinery into areas of vegetation outside the riparian strip. The Contractor must also foster plant regrowth on the banks affected by the work using a method approved by Hydro-Québec (seeding with a mix suited to the environment or moss).

13 HALOCARBONS

13.1 General principles

The Contractor shall comply with provincial and federal regulations governing halocarbons when working with equipment containing halocarbons such as refrigeration, air conditioning and fire protection systems.

It is prohibited to release halocarbons (CFCs, HCFCs, halon, HFCs, etc.) into the air or to allow or cause such a release, either directly or indirectly. The Contractor shall not put a halocarbon into a container that is defective or is past the end of its service life.

Installing refrigeration or air conditioning equipment containing a CFC or filling such equipment with a CFC is prohibited. Installing or refilling a halon fire extinguisher is also prohibited.

The Contractor shall store recovered halocarbons in appropriate, clearly-labelled containers. The label shall indicate the type and quantity of halocarbons in the container, the name of the service company and its representative, and the date the halocarbon was recovered.

13.2 Equipment inventory and maintenance log

Any Contractor that owns, supplies or uses equipment containing halocarbons shall provide Hydro-Québec with a list indicating the type of equipment used and the quantity of halocarbon used in each piece of equipment.

Whenever the Contractor works on (i.e., installs, repairs or dismantles) equipment containing halocarbons, it shall provide Hydro-Québec with a maintenance log detailing the following: description and location of the work performed, type of halocarbon used, quantity of halocarbon recovered, lost or put back into the equipment, name of the person who performed the work, leak tightness test results and date the work was performed. The log shall be kept and maintained in compliance with regulations.

13.3 Accidental release

Hydro-Québec shall be notified without delay of any accidental release of halocarbons into the air.

14 SULPHUR HEXAFLUORIDE (SF_6) AND CARBON TETRAFLUORIDE (CF_4)

14.1 Installation of new equipment

The Contractor shall be responsible for installing new sealed or unsealed equipment (circuit breakers, etc.). Unsealed equipment shall be filled with SF_6 or CF_4 by a specialized supplier.

14.2 Dismantling of equipment

The Contractor shall be responsible for dismantling sealed or unsealed equipment.

In the case of unsealed equipment, the Contractor shall notify Hydro-Québec two weeks in advance of the planned start of dismantling. Hydro-Québec or a specialized company shall collect the gas in orange-colored bottles.

The Contractor shall keep the number of each piece of equipment for shipping identification purposes and shall ship the equipment no later than one month after dismantling it. The Contractor shall ask the Hydro-Québec representative about shipping requirements (identification by serial number, packaging, etc.) and comply with them.

The Contractor shall then supply the labor and materials required to transport the dismantled equipment and bottles to the residual hazardous materials recycling centre in Saint-Hyacinthe (CRMD Saint-Hyacinthe).

14.3 SF_6 or CF_4 leaks

It is prohibited to release SF_6, or CF_4, or any mixture of these gases contained in the equipment and bottles. In the event of the accidental release of these gases, the Contractor shall follow the communication flowchart provided by Hydro-Québec for cases of accidental spills.

15 PLANT AND TRAFFIC

15.1 Plant selection and maintenance

To avoid creating ruts, the Contractor shall choose site plant based on the nature of the terrain. If it is unable to comply with this guideline for technical reasons, the Contractor shall prepare a plan for the restoration of the soil specific to the work area and submit it to Hydro-Québec.

The Contractor shall maintain its plant in perfect working order and must be able to demonstrate this on request from Hydro-Québec. The Contractor must inspect its plant every day in order to ensure that there is no leak of contaminants. If a leak is detected, the necessary repairs shall be carried out immediately.

The handling (refueling, transfer, etc.) of fuel, oil or other contaminants must be carried out farther than 60 m from any watercourse and other sensitive elements indicated in the Contract. However, if the Contractor is unable to respect this 60-m distance, it must prepare a spill prevention plan and submit it to Hydro-Québec.

If it is located less than 60 m from a watercourse or other sensitive elements, stationary plant that contains hydrocarbons shall be fitted with a leak-tight recovery system that has received prior approval from Hydro-Québec. The recovery system shall be inspected and emptied on a regular basis to prevent overflow.

At the worksite, fuel cans with a capacity of about 20 L shall be fitted with a non-return valve.

The Contractor shall carry out all maintenance work on its plant in a location where contaminants can be contained in the event of a spill and make the necessary emergency response equipment available on site.

The Contractor shall equip its plant with the absorbents necessary to respond effectively in the event of an accidental contaminant spill.

If there is a risk of water contamination, the Contractor shall store its contaminating products and plant containing hydrocarbons or other contaminants in leak-tight containers. These containers must be placed in a location that is laid out and maintained in such a way that it remains accessible to emergency teams at all times.

Any plant used by divers under water shall operate with biodegradable oil and its use must receive prior approval from Hydro-Québec.

Hydro-Québec recommends using biodegradable oil throughout the worksite.

15.2 Cleaning of plant

The Contractor shall wash plant used for transporting and laying concrete in an area set aside for this purpose and must ensure that overflows are prevented. The location of the washing area shall be approved by Hydro-Québec. The washing area may consist of a settling pond dug out of the ground. The Contractor shall ensure that there is no visible seepage near the settling pond.

If required, the Contractor shall remove solid segmented residues at the end of the work and place them in a container of dry materials or at an authorized site. It must then fill the settling pond with the original soil, taking care to replace the topsoil layer on the surface.

The Contractor shall clean its plant at a site specifically designed for the recovery of hydrocarbons. The washing area shall be located more than 60 m from any water body. The Contractor shall be responsible for recovering all cleaning materials (water, rags, etc.) soiled by hydrocarbons and

disposing of them in accordance with the provisions of the Hazardous Materials clause. The Contractor shall have its washing area location and work method approved by Hydro-Québec.

15.3 Traffic

The use of any road not indicated in the Contract without prior authorization from Hydro-Québec is prohibited.

When building a road on public land, the Contractor shall comply with the *Regulation respecting standards of forest management for forests in the domain of the State (RNI).*

The Contractor shall ensure that there is no traffic beneath tree crowns. The Contractor may protect certain trees or shrubs using snow fences, collars of planks, or any other means considered effective by Hydro-Québec.

To reduce the risk of erosion on sloping ground, the Contractor shall use methods such as building retaining embankments, berms, trenches or diversion ditches perpendicular to the gradient.

Upon request from Hydro-Québec, the Contractor shall stop heavy plant traffic in areas such as those sensitive to erosion during periods of heavy rainfall, or those with poor load-bearing capacity during periods of light frost or thaw.

15.4 Traffic in the right-of-way of a power line

To operate its plant in the right-of-way of a power line, the Contractor shall use an existing road or build a roadway no more than 8 metres wide. Any deviation from this procedure must be authorized by Hydro-Québec.

At the start of work, the Contractor shall determine the path of a worksite road in the power line right-of-way and establish a baseline for the public and private roads it plans to use during the work, with the understanding that it shall be responsible for maintaining these roads. The path determined must be submitted to Hydro-Québec for approval.

Unless prior authorization has been obtained from Hydro-Québec, it is prohibited to modify the path of an access or bypass road indicated in the Contract, or a worksite road built within the right-of-way of a power line.

The Contractor shall request authorization from Hydro-Québec at least ten days before using any access road in the right-of-way of a power line that is not indicated in the Contract.

The Contractor’s worksite road must not prevent landowners in the area from accessing neighboring fields.

If its plant is creating ruts more than 20 cm deep or causing erosion, the Contractor shall propose mitigation measures to Hydro-Québec and restore damaged soil.

The Contractor shall maintain an efficient drainage system on either side of the roads crossed by its worksite road. If required, the Contractor shall install culverts to prevent blockage of the drainage system, leaching, erosion, or any other deterioration of the roads crossed.

The Contractor shall protect the edges and surfaces of paved roads and keep them clean.

The Contractor shall use access roads during regular working hours only, unless it has obtained special authorization from Hydro-Québec.

Unless otherwise indicated by the Hydro-Québec representative, once the work is completed the Contractor shall restore the terrain to its original condition. For example, the Contractor shall level the ground and fill ruts and excavations using materials other than the topsoil stripped off the site. The Contractor shall also restore the roads it has used to their original condition or better. In addition, the Contractor shall scarify the worksite roads, work areas, heavy equipment parking areas and any other area designated by Hydro-Québec to a depth of at least 25 cm to encourage vegetation growth.

15.5 Roadway maintenance and protection

Throughout the work, the Contractor shall ensure that the roadways it uses are maintained and kept clean and shall take the necessary measures to avoid hindering other traffic.

The Contractor shall take measures to protect paved or concreted roadways during operation of its tracked vehicles. The Contractor shall minimize airborne dust generated by its plant traffic, using dust-control agents that comply with the BNQ NQ 2410-300 standard. If it is unable to use a product that meets this standard, the Contractor shall request instructions from the Hydro-Québec representative.

16 HAZARDOUS MATERIALS

16.1 General principles

Depositing, releasing or discharging a hazardous substance into the natural environment or a sewer system is prohibited.

The Contractor shall store hazardous materials in a place approved by Hydro-Québec. This storage site must be located far from any roadway and at a reasonable distance from drainage ditches, sumps and any other sensitive element indicated by Hydro-Québec.

The Contractor shall have the emergency equipment necessary to deal with contaminant spills available on site, in accordance with the Accidental Contaminant Spills clause.

The Contractor shall not mix or dilute residual hazardous materials (RHM) with other substances, whether hazardous or not, unless they are compatible substances and the result of the mixture is a hazardous substance.

When transporting RHM and any other hazardous substance, the Contractor shall comply with the *Transportation of Dangerous Goods Regulations* and the *Transportation of Dangerous Substances Regulation*. As needed, the Contractor shall supply signs to identify substances (plates or labels warning of danger).

16.2 Residual hazardous materials (RHM)

RHM shall be managed in accordance with the *Regulation respecting hazardous materials*. The Contractor shall be responsible for the recovery, storage and transport of RHM generated in the execution of its Contract.

The temporary storage site installed by the Contractor shall include a shelter with roof, closed on at least three sides and fitted with a liquid-tight floor forming a basin with a retention capacity equal to the higher of the following volumes: 125% of the largest container or 25% of the total volume of all containers filled with liquid RHM. The Contractor shall secure the liquid-tight containers with covers and identify each of them with the name of the material and the last date the container was filled. Absorbents shall be kept near all liquid material storage sites. The communication flowchart to be followed for a spill must be posted nearby.

The Contractor shall, at its own expense, remove RHM to a place authorized by the Ministère du Développement durable, de l'Environnement et de la Lutte contre les changements climatiques and shall inform Hydro-Québec of this location at the site startup meeting. The Contractor shall provide the Hydro-Québec representative with proof that RHM have been eliminated for every shipment to the disposal site.

16.3 Residual hazardous materials belonging to Hydro-Québec

Residual hazardous materials belonging to Hydro-Québec constitute all materials or equipment present at the site before the arrival of the Contractor.

If the Contractor suspects that solid waste not covered by the Contract and belonging to Hydro-Québec may be contaminated, it shall immediately notify Hydro-Québec, which shall identify these substances.

RHM belonging to Hydro-Québec shall be stored in an RHM recovery area that has been delineated, identified and previously approved by Hydro-Québec. As an example, a recovery area might consist of a series of liquid-tight containers covered by a shelter, construction site trailer or maritime container.

The Contractor shall provide the labor and materials required to set up the recovery area, recover the RHM belonging to Hydro-Québec and transport them to the Hydro-Québec staging area nearest the worksite.

Hydro-Québec shall supply the recovery containers (i.e., barrels), the labels to identify the container contents, the posters to identify the RHM categories and the merchandise shipping orders.

17 WASTE MATERIALS

17.1 General principles

The Contractor shall collect site waste on a daily basis and sort it into recyclable residual materials and residual materials for disposal, as defined in the *Regulation respecting the landfilling and incineration of residual materials*.

17.2 Recyclable waste

Recyclables include construction lumber, paper, cardboard, plastic and glass. The Contractor shall recover and sort all recyclable waste if the site is equipped with a sorting centre.

If there is no on-site sorting centre, Hydro-Québec recommends that contractors recover all recyclables and transport them to the nearest sorting centre or use the community's recycling services [http://www.recyc-quebec.gouv.qc.ca/client/fr/repertoires/rep-recuperateurs.asp].

Metals, tires and blast-protection mats shall be stored at a site approved by Hydro-Québec pending their removal to a recovery or recycling centre. The Contractor shall deposit iron, copper, aluminum and other metals belonging to Hydro-Québec in containers provided by Hydro-Québec so that the latter can recover them.

Treated wood, such as wood used for utility poles, shall be stored in compliance with the MDDELCC *Lignes directrices relatives à la gestion du bois traité* [guidelines on management of treated wood].

17.3 Concrete, brick and asphalt waste

The Contractor shall encourage the recovery of concrete, brick and asphalt waste by complying with the *Lignes directrices relatives à la gestion de béton, de brique et d'asphalte issus des travaux de construction et de démolition et des résidus du secteur de la pierre de taille* [guidelines on the management of concrete, brick and asphalt waste from construction and demolition work and of stone rubble from quarry operations] from the Ministère du Développement durable, de l'Environnement, de la Faune et de la Lutte contre les changements climatiques.

Before starting the work, the Contractor shall present the options it has chosen for managing concrete waste and supply a list of proposed sites for disposal or recovery. The Contractor shall support waste reclamation. If there are no facilities for this purpose at or near the site, the Contractor shall remove concrete waste to authorized sites.

When the Contractor must remove concrete that shows signs of contamination (e.g., an oily surface), it shall first clean or scarify it. Soiled absorbent fabric must then be disposed of in accordance with the methods applicable to hazardous materials.

If the Contractor scarifies the concrete, it must dispose of flakes with oily surfaces in accordance with the methods applicable to hazardous materials.

Once the cleaning or scarification work has been completed to Hydro-Québec's satisfaction, the concrete may be broken up and loaded for removal.

17.4 Blasting waste

The Contractor shall recover all blasting waste such as rust, paint, coatings, slag and abrasive along with wastewater by immediate vacuum suction, or by carrying out the work under a shelter, or by using any system that meets current applicable efficiency standards and requirements. The recovery facilities shall be approved by Hydro-Québec.

Hydro-Québec shall analyze the blasting waste and dispose of the portion defined as hazardous material under the *Regulation respecting hazardous materials*. The Contractor shall remove the rest of the waste to a site authorized by the MDDELCC and provide Hydro-Québec with proof that this has been done.

If needed, the Contractor shall place dry and wet waste in sealed, covered containers to prevent any release of residues into the air.

When performing waterblasting work, the Contractor shall recover residues and wastewater in order to prevent any contaminants from being released into the environment. Its recovery system must have undergone a prior inspection by Hydro-Québec.

The use of abrasives containing silica is prohibited. The Contractor shall transmit the datasheet for the abrasive it uses to Hydro-Québec.

17.5 Waste destined for disposal

The Contractor shall be responsible for collecting, storing, transporting and disposing of waste generated by its activities. Such waste shall be disposed of at the Contractor's expense, in a location authorized by the MDDELCC. At Hydro-Québec's request, the Contractor shall provide proof that the waste has been removed to an authorized site.

18 FARMLAND

18.1 Underground drainage

At the start of the work, the Contractor and Hydro-Québec shall jointly survey drained areas and if possible, install markers to identify the locations of the drains.

Worksite roads running parallel to the underground drainage system shall be built between the drains. These worksite roads shall not hinder the proper functioning of the drains.

If the Contractor damages a drain, it shall take the necessary measures to ensure that water flows freely through the drain upstream of the excavation and shall plug the drain downstream of the excavation, install a marker at the site of the drain to be repaired and notify Hydro-Québec.

The Contractor shall hire a specialized company to repair a damaged drain and submit all plans to modify or repair an underground drain to Hydro-Québec prior to final backfilling.

18.2 Surface drainage

At the start of work, the Contractor and Hydro-Québec shall jointly verify the condition of the bridges or culverts the Contractor intends to use and shall establish the locations where it plans to cross drainage structures and install bridges or culverts.

The Contractor shall maintain the bridges and culverts it uses in good working order and shall take the necessary measures to stabilize the banks.

Any modifications to the surface drainage system shall be approved by Hydro-Québec throughout the duration of the work.

The Contractor and Hydro-Québec shall jointly mark out the locations of the wells and any other drinking-water supply sources that could be affected by the Contractor's work. The Contractor shall inform Hydro-Québec of the measures it plans to take to protect water catchment structures. If a drinking water well is found within a 30-m radius of any work (including roads used by traffic), Hydro-Québec must be informed immediately so the water can be sampled and analyzed.

Upon completion of the work or upon notice from Hydro-Québec, the Contractor shall remove any equipment it has installed. In addition, the Contractor shall re-establish the profile of the affected banks and drainage structures before stabilizing them.

18.3 Barriers and fences

At the start of work, the Contractor shall check the condition of any fences present in the right-of-way with Hydro-Québec and determine the types of barriers to be installed and their locations.

When building a rigid or temporary barrier or an arcade for an electric fence, the Contractor shall do the following:

- Shore up the posts on either side of the gap to maintain mechanical tension in the rest of the fence.
- Use the same type of pin and the same number of strands as in the adjacent fence.
- Ensure that the strands are taut enough to keep livestock in.

When taking down stone or pole fences to allow for plant traffic, the Contractor shall store the materials from the dismantled fences in such a way as to be able to rebuild them when the work is completed.

The Contractor shall install and maintain all temporary fences and any other structure required to protect crops, livestock and property.

The Contractor shall ensure that fence gates are closed immediately after the passage of vehicles or site plant.

If an opening is made in a fence that would allow the passage of all-terrain vehicles or snowmobiles, the Contractor shall install signs at each opening prohibiting all traffic.

Any barrier or fence cut, damaged or destroyed by the Contractor shall be repaired using materials of equal or better quality, or shall be replaced with a product of equal or better quality.

Upon completion of the work, the Contractor shall remove any temporary barriers it has installed, unless otherwise indicated by Hydro-Québec. The Contractor shall restore any fences it has modified to good working order using materials of original or better quality. Lastly, the Contractor shall strengthen the props of the posts planted on either side of the closed gap.

18.4 Traffic

Depending on the season and the nature of the soil, Hydro-Québec shall restrict access by vehicles and machinery that may disturb the soil. The Contractor shall take care to avoid mixing topsoil with mineral soil.

Whenever the ground cannot bear the weight of machinery or vehicles due to the season or the nature of the soil, the Contractor shall strip and set aside the topsoil, which shall be used to restore the site at the end of the work. If granular material has been added to the site, the Contractor shall deposit it on geotextile. When the site is restored, the Contractor shall remove the granular material and geotextile and replace the topsoil.

18.5 Performance of work

All excavation areas, stockpiling areas for excavated material and fill, and all areas requiring leveling shall be stripped. The Contractor shall store stripped topsoil for reuse during site restoration. The thickness of the layer to be stripped shall either be stipulated in the Contract or indicated by Hydro-Québec. In all cases, the layer to be stripped shall be no more than 30 cm thick.

If the stripped layer consists of a mixture of inert soil and topsoil, the Contractor shall replace it with topsoil from an area approved by Hydro-Québec.

All excess fill shall be removed from the site. The fill shall not be spread on the surface of the soil.

Spreading gravel on farmland is prohibited without prior authorization from Hydro-Québec.

The Contractor shall fence off all unsupervised excavation areas, in accordance with the terms of the compliance verification carried out by Hydro-Québec.

The Contractor shall take the necessary measures to avoid frightening livestock during the work.

In winter, the Contractor shall clear the area of snow before performing any backfilling or using any work or storage areas. The Contractor shall strip the soil in order to deposit granular material on geotextile.

Burying or leaving metallic or other debris at the worksite is prohibited.

Discharging sediment from pumping in excavation areas into watercourses or nearby ditches is prohibited.

In the event of an accidental contaminant spill, the Contractor shall fence off the contaminated site if it is left unsupervised and shall initiate emergency spill response in accordance with the Accidental Contaminant Spills clause.

The Contractor shall clean all plant used to transport and lay concrete in an area set aside for this purpose. The location of the washing area shall be determined by Hydro-Québec. The washing area may consist of a settling pond dug out of the ground and lined with a geotextile membrane. Upon completion of the work, the Contractor shall remove solid segmented residues and the geotextile membrane, place them in a container of dry materials and provide proof that they have been removed to a suitable storage site. The Contractor shall then fill the settling pond with the original soil, taking care to replace the topsoil layer on the surface.

When backfilling an excavation or dismantling a power line, the Contractor shall restore the terrain to its original profile. To do so, the Contractor shall use the excavated material stockpiled on site and, if there is not enough material, shall obtain material that is similar to the original soil. Stripping the surrounding land to compensate for the lack of material is prohibited.

The Contractor shall set up arrange areas for unreeling cables in locations that have the least impact and have been previously approved by Hydro-Québec.

If the Contractor leaves any of its plant, materials or debris on the site after work hours, it shall install the necessary protective structures to prevent farm machinery or animals from coming into contact with the plant or materials. Protection must be provided until the final restoration of the site.

The Contractor shall be responsible for minimizing airborne dust generated by its plant traffic, using only dust-control agents approved by Hydro-Québec.

19 HERITAGE AND ARCHAEOLOGY

19.1 Heritage

It is prohibited to dismantle equipment that bears a plaque or any other sign indicating its heritage value before obtaining instructions from Hydro-Québec regarding the conditions governing its dismantling and management.

A Hydro-Québec representative shall be present to record the dismantling operations and recover the identification plaque, if applicable.

19.2 Archaeology

If the Contractor discovers archaeological remains on the site, it shall suspend work and notify Hydro-Québec without delay. The Contractor shall avoid any intervention liable to compromise the integrity of the site or the remains discovered.

20 AIR QUALITY

20.1 General principles

The Contractor shall comply with the provisions of the *Clean Air Act*, the *Forest Occupancy Act*, the *Regulation respecting pits and quarries* and applicable municipal regulations regarding airborne dust and air pollutants.

Before carrying out work liable to cause the dispersion of dust or fine contaminant particles, the Contractor shall submit its work method and the planned measures to protect air quality to Hydro-Québec for approval.

The Contractor shall limit idling of plant.

20.2 Open-air burning

The burning of waste in the open air is prohibited except for branches, dead leaves, explosives and empty explosives containers. Any products that may contain explosives must be burned in a container. This prohibition does not cover northern landfill sites as defined in the *Regulation respecting the landfilling and incineration of residual materials*.

Between April 1 and November 15, lighting a fire in or near a forest is prohibited unless a permit has been issued by SOPFEU. If the Contractor wishes to burn explosives or empty explosives containers, it shall have its burning method approved by Hydro-Québec and, if necessary, provide proof that it holds the required permit.

21 SITE RESTORATION

21.1 General principles

The Contractor shall restore the site in accordance with the provisions of the *Forest Occupancy Act*, the *Regulation respecting standards of forest management for forests in the domain of the State (RNI)* and, if applicable, the *Regulation respecting pits and quarries*.

The Contractor is responsible for soil, groundwater or surface water contamination caused by its operations and shall restore the sites made available to it to an environmental condition that is at least equal to what existed before the work began.

As work progresses, the Contractor shall clear the site (i.e., remove plant, materials and temporary facilities, and remove waste, debris and excavated material to authorized storage or disposal sites).

The topsoil set aside at the start of work shall be spread over the entire surface of the worksite or, if there is insufficient topsoil, shall be placed in the form of islands.

Damaged trees designated by Hydro-Québec must be felled, lopped and crosscut into logs 1.2 m long.

Any felled tree of merchantable dimensions shall be recovered if the Contract so requires, whereas any felled tree not of merchantable dimensions shall be disposed of in accordance with the methods specified by Hydro-Québec.

21.2 Drainage and leveling

The Contractor shall level the terrain in order to restore it to its original profile or to a profile that is in balance with the surroundings. In addition, it shall reduce the gradient of slopes on the terrain, in particular in service and storage areas, using a maximum ratio of 2 H:1 V for bedrock, and 3 H:1 V for other types of materials, unless otherwise indicated in the Contract.

The Contractor shall restore natural drainage, which may involve digging ditches.

To minimize the risk of erosion on sloping ground, the Contractor shall build retaining embankments, berms, trenches or diversion ditches perpendicular to the slope.

The Contractor shall restore the roads it has used to their original condition or better. In addition, the Contractor shall scarify worksite roads, heavy vehicle parking areas and any other area designated by Hydro-Québec to a minimum depth of 25 cm to encourage vegetation growth.

21.3 Farmland

The Contractor shall restore farmland in accordance with the Contract and the Farmland clause.

21.4 Site characterization

If the Contractor has performed an activity covered by one of the categories in Schedule III of the *Land Protection and Rehabilitation Regulation*, it shall comply with the requirements set out in section IV.2.1 of the *Environment Quality Act*.

22 PETROLEUM PRODUCT TANKS AND STORAGE FACILITIES

22.1 General principles

The Contractor shall manage its plant and petroleum products in compliance with the requirements of the *Petroleum Products Act*, the *Petroleum Products Regulation,* the *Building Act*, the *Safety Code* and the *Construction Code* of Québec.

The Contractor shall use containers, portable tanks and mobile tanks that meet the manufacturing standards stipulated in the Québec *Construction Code*. It shall install above-ground and underground tanks on sites and using methods that comply with applicable standards.

High-risk petroleum facilities shall be inspected by a certified inspector at the time of installation, replacement and removal. The Contractor shall also have its petroleum facilities inspected in accordance with the frequency and methods stipulated in the *Safety Code*.

Upon request by Hydro-Québec, the Contractor shall submit the certificate of inspection issued by the certified inspector, along with the results of all inspections carried out under the terms of the *Construction Code* and *Safety Code* of Québec.

The Contractor shall hold a permit for the use of high-risk petroleum facilities in order to install or use an above-ground tank containing 10,000 L or more of diesel fuel, or 2,500 L or more of gasoline. The Contractor shall also hold a permit for an underground tank (partially or completely buried) containing 500 L or more of diesel fuel or gasoline. A copy of the permit shall be submitted to Hydro-Québec upon request.

The Contractor shall monitor petroleum product delivery and transshipment operations.

22.2 Contained storage area

Generally, a contractor who installs one or more above-ground tanks with a capacity of 5,000 L or more must ensure that they are fitted with a double wall or surrounded by an impermeable dike to form a contained storage area. If the contained storage area is only protecting one tank, it must be of a sufficient capacity to contain a volume of liquid at least 10% greater than the tank capacity. A contained storage area that protects more than one tank must have a capacity sufficient to contain a volume of liquid equal to or greater than the higher of the following values: the capacity of the largest tank plus 10% of the total capacity of all other tanks, or the capacity of the largest tank plus 10%.

22.3 Procedure in the event of spills

The Contractor shall handle petroleum products in such a way as to prevent and control leaks and spills. Accordingly, it shall at all times keep hydrocarbon absorbents at sites where petroleum products are stored or used. In the event of a contaminant spill, the Contractor shall immediately implement the response plan for accidental spills in accordance with the Accidental Contaminant Spills clause, regardless of the amount of contaminant spilled.

23 BLASTING

23.1 General principles

The Contractor shall take all necessary measures to comply with the *Act respecting explosives* and the *Regulation under the Act respecting explosives*, with sections V and VI of the *Regulation respecting pits and quarries* and with the *Safety Code for the Construction Industry*.

23.2 Blasting methods

The Contractor shall use blasting methods that do not risk causing damage or nuisances such as:

- Meander cracks or crevices in civil engineering structures, underground pipes or building foundations
- Cracks in well casings or changes in the groundwater drainage system that could reduce the flow of a well or even dry it out or allow contaminants to infiltrate it
- Noise that disturbs area residents, wildlife or certain types of operations, such as livestock production

The Contractor shall take the necessary precautions to limit the projection of stones and debris inside the authorized work area. The projection of stones and debris into a watercourse or wetlands is prohibited.

23.3 Blasting in or near water

The Contractor shall abide by the *Guidelines for the Use of Explosives In or Near Canadian Fisheries Waters (1998)*. No blasting may be performed in water without prior approval from Hydro-Québec, which shall obtain the necessary authorizations.

Before blasting in or near water, the Contractor shall use mechanical or electronic methods to drive fish away. The blasting must take place as soon as possible after this operation to prevent fish from returning to the area.

23.4 Damage

Any damage caused to elements outside the authorized work area shall be repaired to Hydro-Québec's satisfaction and at the Contractor's expense.

24 CONTAMINATED SOIL

24.1 General principles

General principles

The Contractor shall manage contaminated soil in accordance with the *Politique de protection des sols et de réhabilitation des terrains contaminés* [policy on soil protection and remediation of contaminated soil] (the "Policy"), the *Regulation respecting the burial of contaminated soils* (RBCS) *and the Règlement sur le stockage et les centres de transfert de sols contaminés* [Québec regulation respecting contaminated soil storage and transfer centres].

The Contractor shall supply the manpower and plant necessary for the excavation, storage, handling and disposal of contaminated soil.

With Hydro-Québec's approval, the Contractor shall reuse range < A and A-B excavated material on the original terrain provided the following conditions are met:

- The excavated material complies with the provisions of the civil specifications
- The excavated material shows no sign of contamination

24.2 Inspection of excavation work

Hydro-Québec may at any time access the excavation sites, issue special instructions regarding the segregation and management of soil, or interrupt the excavation work to carry out an inspection or take samples.

The Contractor shall notify Hydro-Québec at least three days in advance of any planned excavation work in an area where contamination levels are higher than those stipulated in generic criteria C of the MDDELCC Policy.

24.3 On-site traffic

The Contractor shall clean the machinery and motor vehicles it uses at the contaminated site on a daily basis in order to reduce the risk of contaminant dispersion.

24.4 Discovery of contaminated soil

If soil showing signs of contamination (staining, odor, debris, etc.) is discovered in an area presumed to be uncontaminated, the Contractor shall suspend its work and immediately request instructions from Hydro-Québec. Unless otherwise specified in the Contract, Hydro-Québec shall assume the costs of managing contaminated soil.

24.5 Management options for excavated contaminated soil

Before starting decontamination work, the Contractor shall present the management options it has selected and provide a list of proposed soil disposal sites.

Contamination level	Management options
Range < A	• Unrestricted use
A ≤ Range ≤ B	• Use as fill on contaminated residential land undergoing rehabilitation[a] or on any commercial or industrial land, provided that its use does not increase the contamination[b] of the receiving land and, for residential land, that the soil does not emit any perceptible hydrocarbon odors. • Disposal at: – a treatment site – a technical landfill site (TLS) – a trench landfill site – a construction or demolition debris landfill site (CDD)
B < Range ≤ C	• Use as fill at the site of origin provided that its use does not increase the contamination[b] of the land and that the land is to be used for commercial or industrial purposes. • Disposal at: – a treatment site – a technical landfill site (TLS) (unless volatile organic compounds (VOCs) are involved)
C < Range < RBCS[c]	• Disposal at a treatment centre • Disposal at a contaminated soil landfill site
Range ≥ RBCS[c]	• Disposal at a treatment centre

a. Contaminated residential land undergoing rehabilitation is land to be used for residential purposes whose level of contamination has been shown by a characterization study to be higher than criterion B and where the addition of soil from outside is required for rehabilitation work.

b. Contamination is dependent on the nature of the contaminants and their concentration.

c. Maximum values as stipulated in the *Regulation respecting the burial of contaminated soils (RBCS)*.

All disposal sites chosen by the Contractor shall be authorized by the Ministère du Développement durable, de l'Environnement et de la Lutte contre les changements climatiques and approved by Hydro-Québec.

The Contractor shall ensure that soil meets the eligibility conditions for the chosen sites.

On request from the Contractor, Hydro-Québec shall provide information on the type of soil and contaminants discovered as well as the chemical analysis certificates necessary to obtain disposal authorizations.

Copies of weight tickets and manifests issued by the various disposal or treatment centres shall be returned to the Hydro-Québec representative without delay.

24.6 Temporary storage of excavated material

Where required, excavated material shall be stored temporarily on a leak-tight surface (asphalt, concrete or membrane) located on property belonging to Hydro-Québec. The excavated material shall be covered with an impermeable membrane at the end of each workday. The membrane shall be attached using appropriate ballasting equipment.

The Contractor shall supply the plant required to store the soil, as well as the labor required to place and remove the membrane each day.

Soil showing signs of contamination shall not be piled with soils that show no sign of contamination.

Excavated surface soil (0 to 300 mm depth) shall be piled separately. The Contractor shall avoid putting soil from different stratigraphic horizons in the same pile.

24.7 Transportation of contaminated soil

Contaminated soil shall be transported in compliance with the *Transportation of Dangerous Substances Regulation* (provincial) and the *Transportation of Dangerous Goods Regulations* (federal).

25 WORK IN WATER AND ON SHORES

25.1 General principles

Work in water consists of any work performed in a watercourse or along its shores. The Contractor shall develop its work methods and plan its activities in such a way as to do the following:

- Limit the duration of work in water
- Limit dispersion of suspended solids
- Avoid creating erosion zones
- Restrict the intervention area to the required minimum

If the Contractor must pump water from a stream or lake, it must have obtained all the necessary authorizations beforehand.

25.2 Performance of work

Among other items, the Contractor shall specify the following:

- Work sequence
- Duration of work
- Choice of materials (if not specified in the Special Technical Conditions)
- Choice of plant
- Methods to be used to confine the work areas, if applicable

When working in water, the Contractor shall take measures that include the following:

- Use materials that are free from fine particles and contaminants.
- Clean all plant before submerging it in water.
- Use biodegradable oil (i.e., more than 60% degradation in under 28 days) certified in accordance with standard OCDE-301B or ASTM-5864, or certified oil recommended by the MDDELCC (ÉcoLogo – Choix environnemental, the European Union's Ecolabel, The Blue Angel, Good Environmental Choice Australia), or any other equivalent product approved by Hydro-Québec. The Contractor shall provide proof that it is using such products. Hydro-Québec reserves the right to take oil samples from the plant.
- Have competent personnel catch live fish In the area to be dewatered and release them into open water using a method previously submitted to Hydro-Québec for compliance verification
- Take the necessary measures to avoid any unauthorized contamination, which includes allowing solid debris to fall into the water.

25.3 Shore restoration

The Contractor shall use a method approved by Hydro-Québec (seeding with a mix suited to the environment or moss) to restore vegetation on shores affected by the work.

26. WORK IN WETLANDS

26.1 General principles

When working in wetlands, the Contractor shall develop its work method to ensure the following:

- Limit the duration of the work
- Avoid creating ruts more than 20 cm deep
- Restrict the intervention area to the required minimum
- Preserve natural drainage as much as possible
- Keep the topsoil for later use in site restoration
- Dispose of excess excavated mineral soil outside the wetland

Before starting work in a wetland, the Contractor shall submit its work method to the Hydro-Québec representative for approval. The Contractor's work method shall include:

- Creation of access roads
- Type of marking used
- Setting up of work and temporary storage areas if they cannot be created outside the wetland
- Dewatering of the worksite and drainage area
- Establishment of the work sequence and schedule
- Management of excavated material, drilling mud, waste grout, etc. and disposal sites

At the start of work, the Contractor shall use visual markers to clearly indicate the boundaries of the worksites. The markers shall remain in place until the sites are restored and must be visible at all times. Machinery traffic outside the boundaries of the worksites is prohibited.

If a wetland not indicated in the documents provided by Hydro-Québec is discovered at the worksite, the Contractor shall suspend work at this location and notify the Hydro-Québec representative without delay. The Contractor shall submit its work method to Hydro-Québec for approval. Hydro-Québec shall give permission to resume work.

26.2 Plant and traffic

The Contractor shall use the existing roads indicated in the Contract.

If there are no existing roads, the Contractor shall establish a single traffic route, avoiding sensitive areas marked out or indicated by Hydro-Québec. The Contractor shall restrict all machinery traffic to this route.

Whenever possible, the Contractor shall use heavy machinery that exerts little pressure on the ground, such as machinery equipped with tracks or oversized tires.

In wetlands, the Contractor shall use methods that protect the environment (log platforms, fascines, etc.).

26.3 Wetland restoration

The Contractor shall submit its wetland restoration plan to the Hydro-Québec representative for approval.

As part of its restoration plan, the Contractor shall do the following:

- Remove granular material and fill to a location outside the wetlands and other sensitive areas
- Re-establish the site's natural drainage and original topography
- Fill ruts more than 20 cm deep and level the areas used
- Cover disturbed soil with the topsoil previously stockpiled on site at the start of work
- Avoid compacting the topsoil during placement and avoid traffic on it
- Scarify compacted areas to encourage vegetation growth
- Replant all disturbed soil as soon as work in the wetland concerned is completed
- Use a replanting method adapted to the wetland and approved by Hydro-Québec (i.e., seeding, spreading of sphagnum moss, planting, etc.)
- Comply with the seeding rates stipulated by the manufacturer