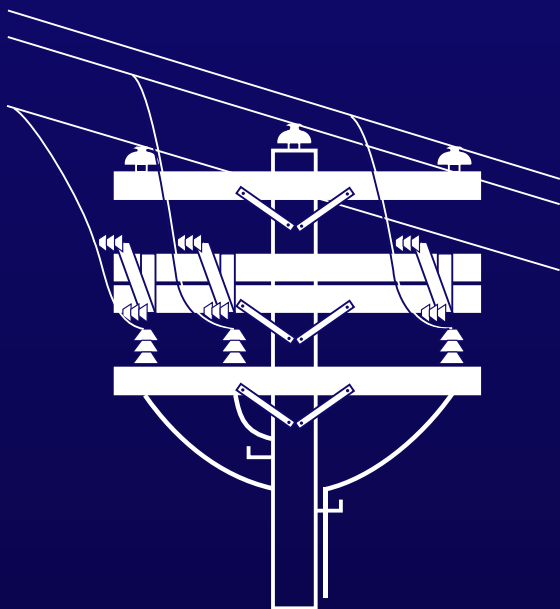




Work Safety Code

7th Edition – July 2022

Distribution



Note: To reflect circumstances in the field, some statements have been reproduced in their entirety, although they do not fully comply with the implementing regulation of the Charter of the French Language.

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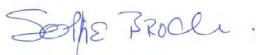
Preface

Worker safety is Hydro-Québec's key concern. We need to put the required tools and framework in place to provide all Hydro-Québec and supplier employees with a safe work environment.

The Work Safety Code establishes the safety principles for the hazards associated with energy sources found in the workplace. The Code is a corporate directive and related guidelines may clarify its application. Hydro-Québec and supplier personnel performing work on or near Hydro-Québec's facilities must comply with the principles and provisions of the Code.

Everyone's safety depends on adequate knowledge of work processes, planning, job hazard analysis and proper work supervision. Workers must have the knowledge and skills required to perform work safely. As a team, we need to work together to implement effective hazard prevention and control measures in the day-to-day performance of our work.

Let's make a commitment to pool our efforts to create such a safe workplace for all of us.



Sophie Brochu
President and Chief Executive Officer

Committee Mandate Work Safety Code

The most recent version of the mandate is available on the intranet site of the Work Safety Code.

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General

1 Introduction

1.1 Purpose

The Work Safety Code sets out the measures to be applied so that workers can perform work safely. Safety measures touch on the hazards related to power sources in Hydro-Québec generating, transmission, distribution, and telecommunications facilities.

1.2 Scope

The Work Safety Code applies to work performed by Hydro-Québec and contractor personnel on or near Hydro-Québec's energized or de-energized facilities.

In an emergency, if someone's safety is in jeopardy, full application of the Work Safety Code is not required. Once the emergency is under control, the Code applies again in full.

The Work Safety Code applies to work in areas designated as "construction sites" for facilities or parts of facilities that have already been commissioned.

The Work Safety Code does not apply to:

- Facilities or parts of facilities designated as "construction sites" that have never been commissioned.

In such cases, the *Québec Safety Code for the Construction Industry* applies up to the commissioning stage.

1.3 Sector standards

The Work Safety Code applies when work is being done on certain specific facilities with special characteristics.

The principles of the Work Safety Code apply and are described in the applicable guidelines (*A.73-03, A.73-04 and D.24-26*).

2 Training and qualification

The rules pertaining to the training and qualification of Hydro-Québec and contractor personnel are defined in the guideline entitled Work Safety Code Training and Qualification (*HQ-SST-N-1003*).

3 Inquiries

Any inquiries related to the understanding of this Work Safety Code must be submitted using the procedure set out in the guideline entitled *Mécanisme de compréhension du Code de sécurité des travaux (SST-N-100)* [Inquiries relating to the Work Safety Code].

4 Monitoring enforcement of the Work Safety Code

Hydro-Québec Distribution must implement an audit program to enforce compliance with the Work Safety Code and related guidelines in order to confirm that parties are aware of and use the prescribed guidelines.

The audit program must include the following:

- Roles and responsibilities in coordinating, planning, conducting audits and implementing corrective action
- Criteria relating to auditor qualifications and selection
- Audit scope
- Annual audit frequency
- Methods to be used and analysis of findings
- Production of reports

The audit plan must be submitted to the Work Safety Code Committee.

Audit findings and conclusions along with all action plans must be documented and communicated to the workers involved and the parties responsible for the corrective actions, and submitted annually to the Work Safety Code Committee.

Distribution

1 Application to lines

The Work Safety Code applies to overhead and underground lines from terminal box connections or at the tension insulators in a substation to a customer's connection point, as well as the customer's metering facilities.

1.1 Selection of safety regime

In accordance with the provisions of the Code and depending on the type of work being done, the safety regime is selected according to the rules set out in the guideline entitled *Choix du régime de travail pour l'exécution des travaux sous tension et hors tension sur les lignes aériennes moyenne tension (D.24-19)* [Selection of safety regime for energized and de-energized work on medium-voltage overhead lines].

1.2 Clarifications

1.2.1 Communications with operator

When there is a Hold Order, the operator and WIC must be able to communicate with one another. In areas where direct communication is difficult, a telephone, cell phone, relay or any other means of communication can be used. If no communication is possible, the Work Authorization applies.

1.2.2 Electrical isolation points

Energy-isolating device that enables separation in an electrical circuit that can be verified visually or positively

according to the applicable guideline. The procedures for performing a visual or positive check of the separation of an electrical isolation point are set out in the guideline *Critères de vérification des dispositifs d'isolement des sources d'énergie (D.24-20)* [Criteria for verifying energy-isolating devices].

1.2.3 Underground sector methods

In cases where the Work Safety Code cannot be fully applied due to specific characteristics of the facilities or parts of facilities, sector-specific methods will be developed by the affected sectors and will include the:

- temporary rules of application of the Work Safety Code
- schedule for replacing non-compliant equipment

The methods will be developed jointly with the local health and safety committees (CLSS) involved and submitted to Work Safety Code Committee for assessment.

1.2.4 Lockout Sheet

A Lockout Sheet must be drawn up when locking out an energy-isolating device is more complex. Otherwise, the lockout procedures are based on the Safety Measures Sheet, in compliance with the requirements set out in the reference document for locking out Distribution energy-isolating devices (*HQ-SST-M-1002 Élaborer et utiliser une Fiche de cadenassage [Developing and using a Lockout Sheet]*).

2 Definitions

Device

Any component in a facility (e.g., circuit breaker, transformer, disconnect switch, reactor).

Related Work Authorization

Work authorization related to the designated WIC's Work Authorization.

Telecommunications network component

Any element part of the telecommunications network.

Delegated worker

Authorized worker who performs the lockout for the WIC.

Energy-isolating device

Device that physically prevents electrical or mechanical energy from being transmitted or released.

Note: Pushbutton switches and similar controls are not energy-isolating devices.

Autonomous power

Power from an autonomous source that does not contribute to the operation of a device, apparatus or facility, for the purpose of conducting a test.

Auxiliary power

Electrical power (750 V and less), either radiant or optical, that contributes to the operation of a telecommunications network device or component.

Induced power

Electrical power generated inductively or capacitively.

Main power

Electrical power at a voltage of more than 750 V present or flowing through a facility or in a device.

Switchperson

An authorized worker who carries out or supervises switching operations under the orders of an operator.

Operator

An authorized worker from Hydro-Québec designated by an administrative unit as being in charge of operating specific facilities.

Security guard

An authorized worker from Hydro-Québec who is in charge of applying the safety measures set out in this Code. This worker may suspend work if there is a hazard that may put workers' safety at risk, and then notifies their supervisor.

Note: For the sake of readability, this term will not be repeated in the document. A security guard has the same duties as a worker in charge (WIC), with the exception of work coordination.

Facility

A group of apparatus and conductors or telecommunications network components, such as overhead or underground lines or telecommunications links, taken as a whole or in part.

Authorized worker

A worker who meets the qualification criteria specified in the Work Safety Code (HQ-SST-N-1003).

Initiated worker

A worker who has taken the introductory course on the Work Safety Code ("Initiation au Code de sécurité des travaux").

Electrical isolation point

Energy-isolating device that enables separation in an electrical circuit that can be verified visually or positively according to the applicable guideline (D.24-20).

Team leader (responsible)

Authorized worker who oversees the work and is responsible for applying the safety measures applicable to their team in the work zone.

Note: Depending on the type of job, qualification under the Work Safety Code is not required for Hydro-Québec or contractor personnel required to act as team leaders. The types of jobs concerned by the qualification can be found in the training and qualification guideline (HQ-SST-N-1003).

Worker in charge (WIC)

Hydro-Québec or contractor authorized worker who is in charge of applying the safety measures of this Code. When there is more than one team, the WIC is responsible for coordinating the work in the work zone.

Designated worker in charge

An authorized worker, appointed by a group of WICs, who is in charge of locking out the isolation points of the protected zone common to those WICs.

Underground system:

This worker is also responsible for the coordination and/or installation of the grounds defined with the WICs.

Work zone

Area established by the WIC and the team members at the site where the work is to be carried out. If the work zone involves more than one structure, these must be easily accessible between them and enable visual contact.

Protected zone

Area established by the operator by means of isolation points corresponding to a WIC's needs and within which measures taken by the operator enable the WIC to establish a work zone.

3 Equipment

Lockout box

Lockable box used by the WIC and team members designed to allow workers to check whether there are any lockout padlock keys.

Lockout padlock

A series of padlocks opened using the same key, bearing the same alphanumeric serial number and used for lockout purposes.

Individual padlock

Lock or series of locks with a single key marked with the worker's name for the duration of the work, and for which only that worker has the key.

Transfer envelope

Envelope used by the WIC to carry out an indirect change in WIC when no lockout box is used. The envelope contains at least the Safety Measures Sheet. It is designed so that the seal number, safety regime number, identification and location of the work can be seen.

Lockout Sheet

Form containing all the information related to the lockout and verification of the isolation of the energy-isolating devices (*HQ-SST-M-1002*).

Note: During the deployment period, the absence of any Lockout Sheets does not prevent work from being performed.

Safety Measures Sheet (SMS)

Form used to enter all the information concerning the lockouts and safety measures put into place for the safety regime being used.

Accord tag

Blue and white tag marked "ACCORD" used when work is to be done under the Accord regime.

Self-protection tag

Yellow and white tag that reads “NE PAS MANŒUVRER – AUTOPROTECTION” [No switching – Self-protection] displayed when work is to be done under the Self-protection regime.

Lockout tag

Red and white tag that reads “APPAREIL CONDAMNÉ – DÉFENSE DE MANŒUVRER” [Device locked out – No switching] used when work is to be done under a Work Authorization regime.

Hold Order tag

Green and white tag that reads “RETENUE” [Hold Order], used for work done under the Hold Order regime.

Note: On the operators' monitors, the Accord, Work Authorization and Hold Order tags as well as the Concession safety measure are represented by icons.

Lockout hasp

Device that allows several locks to be installed.

Transfer seal

Single-use device with unique numbering installed on a lockout box or transfer envelope to ensure lockout continuity. Used only when there is an indirect change in WIC.

4 Safety regimes

The types of safety regimes include:

- Work Authorization
- Accord
- Self-protection
- Hold Order

When the work is performed by Hydro-Québec personnel under a Work Safety Code regime, the latter are held by Hydro-Québec authorized personnel. However, support or expertise provided by Hydro-Québec personnel is permitted in a work zone for which the Work Safety Code regime is held by contractor personnel, provided the work is performed by the contractor.

4.1 Work Authorization regime

4.1.1 Application

The Work Authorization regime applies to de-energized work performed by Hydro-Québec and contractor personnel on or near Hydro-Québec facilities operating at 750 V or more under an operator's responsibility.

This regime also applies when work requires the withdrawal from service of a facility located in an area where no communication is possible between the operator and the WIC.

4.1.2 Application procedure

The work is performed in accordance with Hydro-Québec Distribution's safety standards (*D.25-05*).

No work is permitted on an energy-isolating device serving as an electrical isolation point for the protected zone (*D.24-20*).

No work is allowed that may alter the state of an energy-isolating device serving as an isolation point.

When a designated WIC is used, the operator issues Work Authorizations that are related to the designated WIC's Work Authorization.

Before starting work in a delimited work zone, there must be agreement with the WIC on the work to be done in his zone.

4.1.3 Outage request

When scheduled work has to be done under a Work Authorization, an outage request must be submitted to the operator in accordance with the operating rules (C.36-01). The outage alone is not sufficient to authorize the work.

When there is a communication gap, the withdrawal from service must first be authorized by the operator, who issues a Work Authorization number to the WIC. Through this agreement, the operator delegates the responsibility for establishing and removing the protected zone.

Relevant information regarding the protected zone as well as all other information needed to plan and carry out the work must be provided to the WIC before work begins.

4.1.4 Establishing the protected zone

The operator must establish or have established the isolation points ensuring the protected zone. The operator disables, or has someone disable, the energy-isolating devices(s) of motorized devices acting as electrical isolation points. The operator confirms, or has someone confirm, that the isolation has been verified (D.24-20).

The operator performs, or has someone perform, a zero-voltage check using an approved detector or according to the applicable guideline (D.24.21).

Protected zones must never overlap. However, different protected zones may have common isolation points.

4.1.5 Lockout of protected zone (see Table 2, Lockout)

Each worker must protect themselves by attaching a padlock to prevent any accidental re-energization of the facility, part of the facility or component on which

they are working. Lockout Sheets must be used when they have been drawn up for the work to be performed.

The energy-isolating devices serving as electrical isolation points for the protected zone must be verifiable visually or positively according to the applicable guideline (D.24-20).

Note: Before performing the work to be done, the lockout device must be installed, when it exists.

The lockout can be done once the protected zone has been established, or at the same time when performing switching operations to create the protected zone.

Lockout modes

There are two possible lockout modes: Priority mode and Delegated Worker mode.

However, at the work site, the lockout is always done in Priority mode.

When there is an interruption in customer service, the lockout mode is chosen to minimize the outage.

Note: The criteria for selecting the lockout mode are presented in the "Lockout of protected zone" table.

I Priority lockout mode

The WIC or team leader comes to an agreement with the operator on the size of the protected zone.

The WIC or designated WIC and at least one team member or their delegated worker(s) lock out the energy-isolating devices acting as isolation points for the protected zone in accordance with the Safety Measures Sheet and, where applicable, the associated Lockout Sheets. (For the designated WIC, the other WICs act as members of the team for lockout purposes.)

The use of delegated workers is allowed in Priority mode.

The entire team should participate with the WIC in the lockout process in order to become familiar with the energy-isolating devices (*HQ-SST-M-1002*).

For these lockouts, after verifying the isolation, the WIC or the designated WIC uses one or a series of lockout padlocks. Each padlock must be installed using a lock-out hasp.

When the energy-isolating device is non-lockable, lockout tags must be used, on each phase of all of the energy-isolating devices, that bear the sequential number of the Safety Measures Sheet (Guide FMS Distribution) (see Appendix II, Lockout).

In addition, the WIC or designated WIC enters the sequential number of the Safety Measures Sheet on these tags.

The WIC or designated WIC retrieves and places the key(s) used for the lockout of the isolation points in the lockout box for which they are responsible.

Note: When a designated WIC is responsible for a work area, they also acts as WIC.

a) Continuation of lockout procedure – Designated WIC and other WICs

The designated WIC forwards to the other WICs the information related to the lockout using the Safety Measures Sheet and, where applicable, the associated Lockout Sheets.

Each WIC, including the designated WIC, places an individual lock on the designated WIC's lockout box.

The operator issues the Work Authorization to the designated WIC in accordance with Section 4.1.6.

The operator and the designated WIC agree to not alter the protected zone, except as specified in Section 9.1.

All the WICs sign the Safety Measures Sheet certifying that they are in agreement with the size of the protected zone and the instructions received. The designated WIC signs the Safety Measures Sheet once all the WICs have signed it, the safety measures under the WIC's responsibility are installed, and the designated WIC has authorized the other WICs to begin their work.

Underground system:

The designated WIC coordinates the measures required for installing the grounds with the other WICs. These WICs then complete the relevant sections of the Safety Measures Sheet (see Section 5, "Establishing safety measures for the work zone").

Note: When employees are only needed to install grounds, they must use their individual padlocks to lock out the designated WIC's lockout box. They remove the lockout box once the grounds have been installed.

Each WIC places their own key, used to lock the designated WIC's lockout box, in their own lockout box. The WICs then complete their Safety Measures Sheets for their respective work zones.

b) Continuation of lockout procedure – WIC and team members

The WIC completes the Safety Measures Sheet with the members of their team.

The WIC sends the relevant information using the Safety Measures Sheet and, if applicable, the associated Lockout Sheets.

Each team member, including the WIC, places an individual lock on the WIC's lockout box.

This is done after locking out the energy-isolating devices for any energy sources that are present that may constitute a hazard for the entire team.

Note: When employees are only needed to install grounds, they must use their individual padlocks to lock out the WIC's lockout box. They remove the lockout box once the grounds have been installed.

II Lockout mode for delegated workers

a) Delegated workers

At the operator's request and for the WIC or designated WIC, two delegated workers who are not part of the team perform the lockout for the *protected zone or part of the zone as follows*:

- After verifying the isolation, they use one or a number of lockout padlocks. Each padlock must be installed using a lockout hasp.
- When the energy-isolating device is non-lockable, lockout tags must be placed on each phase of all of these energy-isolating devices that bear the sequential number of the Safety Measures Sheet (Guide FMS Distribution) while waiting for other mechanisms to be established by the lockout working group, as specified in Appendix II.
- Enter on the Safety Measures Sheet the identification of the isolation points, the numbers of the padlocks that were used, and their names.
- Place at a predetermined location the key(s) for the lockout padlocks that were used as well as the Safety Measures Sheet and, where applicable, the associated Lockout Sheets.
- Communicate the actions taken to the operator.

b) The WIC or designated WIC:

- Retrieves, at a predetermined location, the lockout key(s) as well as the Safety Measures Sheet and, where applicable, the associated Lockout Sheets.

- Makes sure that the electrical isolation points entered on the Safety Measures Sheet match those required for the protected zone according to the as-built diagram.
- Confirms the isolation points transmitted by the operator against those entered on the Safety Measures Sheet.
- Places the key(s) for the padlocks used by the delegated workers in the lockout box for which he/she is responsible.
- Continues the lockout procedure:
 - Designated WIC and other WICs; see 4.1.5 a)
 - WIC and team members; see 4.1.5 l b)

4.1.6 Work Authorization issued to the WIC or designated WIC

The operator issues the Work Authorization by providing a Work Authorization number. The operator and the WIC or designated WIC agree not to alter the protected zone, except as specified in Section 9.1.

Note: In the case of a designated WIC, the Work Authorization is issued in 4.1.5 l a).

4.2 Accord regime

4.2.1 Application

The Accord regime applies to work carried out by Hydro-Québec and contractor personnel on energized or de-energized auxiliary power at 750 V or less that may affect the operator.

The Accord regime also applies during:

- Operating checks on control boxes that may affect the Hold Order

- Tests requiring main power on facilities under the responsibility of an operator
- Work on the telecommunications network affecting the Hold Order regime
- Energized or de-energized work on automatic controls that may affect the Hold Order

4.2.2 Application procedure

The work must be performed in accordance with Hydro-Québec Distribution's safety standards (*D.25-05*).

Before starting work in a delimited work zone, there must be agreement with the WIC on the work to be done in their zone.

4.2.3 Advance request

When work has to be done under the Accord regime, an advance request must be submitted to the operator, in accordance with the operating rules (*C.36-01*).

4.2.4 Issuing the Accord regime

The operator issues the Accord regime to the WIC by providing the Accord regime number. The operator checks whether one or more safety regimes have been issued in accordance with the applicable guidelines (*C.36-04, B.72 MA 2110, TEL-GES-P-31-05-001-O*).

4.3 Self-protection regime

4.3.1 Application

The Self-protection regime applies to work performed by Hydro-Québec and contractor personnel on facilities not under operator responsibility, as well on the devices indicated in Section IV. These situations consist of:

I De-energized medium-voltage facilities

- Facilities under construction that have not been connected to the power system
- Facilities being dismantled that have been decommissioned and will not be put back in service
- De-energized medium-voltage metering facilities at the customer's premises

II Energized or de-energized low-voltage facilities

- Facilities operated at 750 V or less
- Metering facilities operates at 750 V or less

III Devices

- Transformers, associated circuit breakers and surge arresters

IV Devices under the operator's responsibility

Applies to the devices mentioned below once they are isolated from the system when the jumpers connecting them to the medium-voltage system have been disconnected (*D.25-04*):

- Condensers, surge arresters, line switches, line disconnectors, and line circuit breakers

4.3.2 Application procedure

The work is performed in accordance with Hydro-Québec Distribution's safety standards (*D.25-05*).

For this regime, no control number is issued to personnel performing the work. However, the WIC must notify the operator when customers are affected by work on the devices mentioned in 4.3.1 III or during work on the devices mentioned in 4.3.1 IV.

Before starting work in a delimited work zone, there must be agreement with the WIC on the work to be done in his zone.

4.3.3 Advance request

No advance request may be sent to the operator during work under the Self-protection regime.

4.4 Hold Order regime

4.4.1 Application

The Hold Order regime applies to energized work performed on or near facilities operated at 750 V or more.

4.4.2 Application procedure

The work is performed in accordance with Hydro-Québec Distribution's safety standards (*D.25-05*).

The Hold Order regime is a guarantee given by an operator to a WIC that (*C.36-02*):

- the apparatus supplying power to the line or device under the Hold Order regime will not be reclosed without the WIC's consent in the event the device should trip or open
- all the protection systems required to issue the Hold Order are connected
- circuit breaker and protection system maintenance is performed in accordance with applicable guidelines (*B.41.12 MM 4110, TET-APE-N0001, TET-AUT-N-1.7.1.1*)
- no work will be done on the required protections

A Hold Order may be recalled at any time at the operator's request.

4.4.3 Advance request

When work has to be done under the Hold Order regime, an advance request must be sent to the operator, in accordance with the operating rules (C.36-01).

4.4.4 Establishing the Hold Order

I For non-remotely-controlled circuit breakers

The operator:

- connects, or has someone connect, the fast neutral ground, if the device is equipped with it
- disconnects, or has someone disconnect, the reclosers, if the device has any
- makes sure that auxiliary power is present for reclosing circuit breakers
- removes, or has someone remove, the reclosing fuse for reclosing breakers, if the devices are equipped with it
- identifies, or has someone identify, the control and reclosing devices using Hold Order tags, except for line circuit breakers

II For remotely-controlled circuit breakers:

The operator:

- connects, or has someone connect, the fast neutral ground, if the device is equipped with it
- disconnects, or has someone disconnect, the reclosing devices
- identifies, or has someone identify, the reclosing and control devices using Hold Order tags

III Locking out of non-remotely-controlled line circuit breaker reclosers

The WIC or a delegated worker on the team locks the reclosing devices using a lockout padlock and hasp. There are as many lockout padlocks as there are Hold Orders.

For locations where locking out is not feasible, Hold Order tags must be used while entering the sequential number of the Safety Measures Sheet (Guide FMS Distribution).

4.4.5 Issuing the Hold Order

The operator issues the Hold Order to the WIC by giving them a Hold Order number. The WIC enters the Hold Order number on the Safety Measures Sheet.

5 Establishing safety measures for the work zone

For the Work Authorization, Accord and Hold Order regimes, the planning of the safety measures to be taken for establishing the work area begins once the WIC has the number of the safety regime issued by the operator.

I Work Authorization

There may be several work zones within a protected zone, but no work zones may overlap.

Underground system:

Note: For a designated WIC, the safety measures under their responsibility are established in 4.1.5 I a).

5.1 Planning the safety measures

The WIC and the team members plan the required measures for establishing the work zone. For instance, they must:

- A) Define the work zone based on the work to be performed

Note: The installation or replacement of conductors allows a work zone to be established that exceeds the accessibility and visual contact criteria defined in Section 2 Definitions.

- B) Identify the safety measures to apply

- 1) Control re-energization caused by induced energy, lightning or accidental re-energization.

At no time should the protection provided by the grounding devices be affected by the opening of an electrical circuit when work is being performed.

Identify, according to applicable guidelines, the location(s) chosen for installing the grounding devices that provide protection against the risk of re-energization by induced energy, lightning or accidental re-energization according to the type of work being done and the short-circuit current (*D.25-05, D.24-16, D.25-09, F.24 A 4101, F.24 A 4201, F.24 A 4202*).

- 2) Identify the energy sources

The WIC and the team members must make sure that potentially hazardous energy sources of all types have been eliminated. Some types of work require the application of an energy control method; in such a case, refer to the applicable guidelines (*B.6-01, D.25-05*).

If such energy sources constitute a hazard for the entire team, they must be eliminated at the start of the work.

If such energy sources constitute a hazard for only part of the team, they must be eliminated during the work.

- C) Enter the safety measures identified in B) on the Safety Measures Sheet.

The WIC completes, with the members of their team, the Safety Measures Sheet and, where applicable, the associated Lockout Sheets.

5.2 Applying the safety measures (see Table 2 – Lockout)

The WIC applies, or has someone apply, the safety measures determined by the team.

- A) Control re-energization caused by induced energy, lightning or accidental re-energization.

Assign a person in charge of performing a zero-voltage check using an approved voltage detector or according to the applicable guideline (D.24.21).

Assign personnel in charge of installing, at the chosen location and according to the applicable guidelines, the grounding devices that protect against the risk of re-energization due to induced power, lightning or accidental re-energization (D.24-16, F.24 A 4101, F.24 A 4201, F.24 A 4202).

Note: The zero-voltage check must be performed immediately before installing the grounds (D.24-16).

I Work Authorization

In the case of a designated WIC in an underground facility, this step is performed in 4.1.5 I a).

In the case of a designated WIC, once the work has been started and for safety reasons, no additional work zone may be established without the consent of the WIC and the designated WIC.

B) Eliminate the energy sources

All team members should take part in the lockout process in order to become familiar with the energy-isolating devices (*HQ-SST-M-1002*).

Each worker must protect themselves by attaching a padlock to avoid any accidental re-energization of the facility, part of the facility or component on which they are working. Lockout Sheets must be used when they have been drawn up for the work to be performed.

The energy-isolating devices serving as safety measures must be verifiable visually or positively according to the applicable guideline (*D.24-20*).

When the energy sources present in the work zone may constitute a hazard for the entire team, after verifying the isolation, the energy-isolating devices are locked out with a padlock and hasp using the Safety Measures Sheet and, if applicable, the associated Lockout Sheets.

1 Accord, Self-protection or Hold Order

The WIC and the team members can also use their individual padlocks and a hasp to lock out the energy-isolating devices that present a hazard for the entire team.

When a lockout box is being used, the WIC places the key(s) used to lock out the energy-isolating devices in the lockout box for which they are responsible. Each team member, including the WIC, places an individual lock on the lockout box. In the case of

a WIC who is also acting as the designated WIC, a second lockout box may be required.

For energy sources that constitute a hazard for only part of the team, each worker must lock out, using the Safety Measures Sheet and, where applicable, the associated Lockout Sheets, the energy-isolating devices with an individual padlock and a hasp. The WIC also attaches his individual lock. These lockouts are done before work begins and may be removed when no longer required.

When the energy-isolating device is non-lockable, lockout tags must be used that are identified according to the safety regime and bearing the sequential number of the Safety Measures Sheet (Guide FMS Distribution) (see Appendix II, Lockout).

5.3 Delimiting the work zone

When a work zone is established by distribution system personnel on a distribution facility located inside a substation, that work zone must be delimited with markers. Markings must be placed to comply with approach distances and so that they can be seen by workers to keep them from crossing the work zone boundaries (*HQ-SST-N-9001*).

6 Instructions to personnel

The WIC informs the team members of the area of the protected zone and of the lockout, if applicable, of the area of the work zone, along with the safety measures that have been installed. The WIC provides the instructions to personnel according to the Safety Measures Sheet application procedures.

The team members sign the Safety Measures Sheet to certify that they understand and agree with the information and the instructions that were given. The WIC signs the Safety Measures Sheet only once all the team members have signed it and he or she has authorized the start of the work.

Before entering the work zone, each worker must have been given the instructions to personnel, signed the Safety Measures Sheet and attached an individual padlock, where applicable (according to reference document D-24-12). Any worker unfamiliar with this Code must be accompanied by an authorized worker.

Note: When setting up the work station at the pole or performing energized work under the Hold Order, the ground monitoring steps must be applied as required in the work plan (B.6-01 and D.25-05).

Instructions to personnel may be provided before the temporary grounds are installed by a worker performing his work in the same structure. He signs the Safety Measures Sheet after installing the temporary grounds.

Overhead system:

When only one worker is designated to install the safety measures, they may sign the Safety Measures Sheet before accessing the structure only if all the grounding assemblies provided for the creation of the work zone are installed directly in that structure.

I Work Authorization

Note: Initial instructions to personnel are provided, in the presence of a designated WIC, with the other WICs and the required personnel. (See Section 4.1.5 I a).

7 Presence of worker in charge (WIC)

The WIC must be present in the work zone when work is being done in order to provide adequate supervision.

The WIC must not allow work to be performed in more than one work zone at a time.

I Work Authorization

The designated WIC must be present in the protected zone when work is being done. However, he may briefly leave the protected zone after notifying the other WICs if doing so is related to the purpose of the work and does not affect worker safety.

8 Change in worker in charge (WIC)

A) Direct change in WIC

When a direct change in WIC is planned, the following procedure applies:

- If a safety regime has been issued, the operator is notified of the change. The operator confirms the safety regime number. Under a Work Authorization, the operator confirms the isolation points for the protected zone to the new WIC.
- The new WIC retrieves the Safety Measures Sheet and the Lockout Sheet(s) from their predecessor. In completing the appropriate box, the new WIC certifies having been informed by their predecessor of the safety measures taken and of being in agreement with them. The new WIC must also accept the lockout that was performed or check it before accepting it (except for the isolation verification steps, which are considered as having been completed).
- The new WIC installs their individual padlock and their predecessor removes their padlock.

I Work Authorization

When there is a change in designated WIC, the group of WICs chooses a new designated WIC and the same procedure as with a direct change in WIC applies. In addition, the former designated WIC informs the new designated WIC of the lockout of the isolation points for the protected zone.

In the case of a designated WIC (underground system), they inform the new designated WIC of the safety measures that were applied.

B) Indirect change in WIC

When an indirect change in WIC is planned, meaning that the WICs do not cross paths physically, the following procedure applies:

The WIC leaving the work zone must:

- Enter the transfer seal number in the appropriate box on the Safety Measures Sheet
- If a lockout box is being used:
 - Install the transfer seal on the lockout box
 - Have the individual padlocks removed from the lockout box and remove their individual padlock
- When no lockout box is used, a transfer envelope must be used:
 - Place the Safety Measures Sheet and, where applicable, the associated Lockout Sheets inside the transfer envelope. (Position the Safety Measures Sheet so that the seal number, safety regime number, identification and location of the work can be seen)
 - Place the transfer seal on the envelope

- Place the lockout box or transfer envelope and the Safety Measures Sheet at a predetermined location and, where applicable, the associated Lockout Sheets
- If a safety regime has been issued by the operator, the WIC shall inform the latter of the measures that were taken

Note: No work may be performed when a transfer seal is placed on a lockout box or transfer envelope.

The new WIC must:

- Retrieve the lockout box or transfer envelope and the Safety Measures Sheet from the predetermined location and, where applicable, the associated Lockout Sheets
- Make sure the transfer seal number matches the number on the Safety Measures Sheet

Note: If the seal number does not match the one on the Safety Measures Sheet, or if the transfer seal has been tampered with, lockout continuity cannot be ensured.

- Place their individual padlock on the lockout box, if required
- Remove the transfer seal from the lockout box or transfer envelope
- If a safety regime has been issued by the operator, notify the latter of the change and confirm the safety regime number (under a Work Authorization, the operator confirms the isolation points for the protected zone to the new WIC)
- Check the lockout in Priority mode before accepting it (except for the isolation verification steps, which are considered as having been completed), or accept the lockout performed in Delegated Worker mode

- Complete the appropriate section on the Safety Measures Sheet. In signing, the new WIC certifies having verified the safety measures taken by their predecessor and of agreeing with them.

C) Unforeseen absence

In case of an unforeseen absence on the part of the WIC, the immediate superior designates a new WIC and notifies the operator. The absent WIC's individual padlock remains in place and the immediate superior takes the necessary action with the employee as per Appendix 1, if required.

The immediate superior and a team member inform the new WIC of the safety measures taken by the latter's predecessor and the rest of the procedure for the direct change in WIC applies.

1 Work Authorization

In case of an unforeseen absence on the part of the designated WIC, the immediate superior and the other WICs select a new designated WIC and the immediate superior informs the operator. The immediate superior and the WICs inform the new designated WIC of the status of the lockout of the isolation points for the protected zone, and the remainder of the procedure involving the direct change in WIC applies.

In the case of a designated WIC (underground system), they inform the new designated WIC of the safety measures that were applied.

9 Work interruptions

When work is stopped by the WIC, the latter must make sure that all team members have left the work zone. The WIC prohibits anyone from returning to the work zone and schedules the time and place for everyone to meet before work is resumed.

Upon returning, the WIC makes sure that safety measures are being applied, reminds workers of the instructions, enters the information on the Safety Measures Sheet, and authorizes access to the work zone.

When a lockout box is used, it must be unlocked at the end of the workday by all the team members, except for the WIC and one team member.

1 Work Authorization

When a designated WIC is used, all the lockout boxes are removed at the end of the workday, except for the designated WIC's box, which remains locked out by the designated WIC and all the WICs. When, at the end of the workday, the designated WIC no longer has any other WICs under their responsibility, they apply the procedure established for the WIC.

9.1 Modification of protected zone (Work Authorization)

When, during work under the Work Authorization regime, the protected zone has to be increased or reduced and this requires the locking out and unlocking of the isolation points in the protected zone, the following rules must be observed:

- There can only be one Work Authorization in the protected zone
- The modification applies only in Priority lockout mode

- The new isolation points must not be located in another protected zone
- The change in isolation points must be authorized by the operator and the new isolation point(s) for the protected zone are defined by the operator established under their responsibility and agreed to with the WIC involved
- The change in isolation points must be determined in accordance with the provisions of sections 4.1.4 and 4.1.5
- A modification of the protected zone may be planned to reduce the interruption in customer service

Note: In the overhead system, up to four modifications to a protected zone are allowed.

Underground system:

Unscheduled work:

- **Modifications to the protected zone may be done for generator tests, when replacing switches, or when repairing a problem that was discovered during the work and when such a repair was not included in the planning stage. In these cases, the expansion of the zone must be limited to the first isolation point that follows the current protected zone and that allows work to be performed inside the new protected zone.**
- **An energy-isolating device serving as an isolation point may be used as many times as required to complete the work without necessarily going back to the initial point.**

Chronology

- a) The WIC stops the work and makes sure that all the team members are outside of the work zone.

- b) The WIC leaves the work uncompleted in the work zone. The grounds may be kept for an expansion. When the protected zone is reduced, the grounds are removed in the reduced zone only.
- c) After performing a zero-voltage check, the new isolation point(s) are entered on the Safety Measures Sheet and, where applicable, on the associated Lockout Sheets.
- d) The new energy-isolating devices serving as isolation points are locked out before the removal of the lockout on the former energy-isolating devices.
- e) Before resuming work, the WIC and team members agree on the size of the new protected zone and make sure that all the safety principles and measures in the Code are implemented.

10 Operating checks and/or tests

10.1 Operating checks involving auxiliary power

When work is being performed under the Work Authorization, Accord or Self-protection regime and auxiliary power is required for the checks, the WIC informs the team members and then proceeds as follows:

- a) If auxiliary power is required at the start of the work, the energy-isolating devices are not locked out. Once the checks have been completed, the WIC proceeds with the lockout or removal of the lockout, if required.
- b) When new construction is done under the Self-protection regime, before conducting tests or operating checks, the WIC must:

- Provide the operator with a detailed plan and status report for the work
- Specify the location and scope of the tests

For new facilities, the tests and operating checks must be performed in accordance with Hydro-Québec Distribution's safety standards (*D.25-05*).

10.2 Tests involving autonomous power sources

When work is performed under a Work Authorization or Self-protection regime and tests must be done using autonomous power sources, the WIC:

- Makes sure that the power source does not constitute a hazard for their team and in such a case, access to the work zone must be reserved to persons whose presence is required to perform the tests, and personnel not required for the tests must be evacuated
- Makes sure that no power can be released from their work zone by electrically isolating it from all other adjacent work zones

I Work Authorization

Underground system:

- **The WIC must take a new Work Authorization for the voltage generator. A computer lockout links the concession to the Work Authorization to prevent the operator from issuing the Work Authorization when a concession has been issued (*C.36-03*).**

10.3 Checks and operation involving main power

The WIC must hand in the Work Authorization before performing operating checks involving main power.

If the checks require connecting the device to the power system, the WIC must apply the Accord regime (excluding the devices mentioned in 4.3.1 III).

Overhead system:

- During work performed under the Self-protection regime mentioned in 4.3.1 IV that require operating tests in the presence of main power, return the device to the operator and obtain an Accord regime

When main power is required from the start of the work to perform checks, the energy sources are not locked out. Once the checks have been completed, the WIC proceeds with the lockout if required.

10.4 Tests and operating checks during metering work

The tests and operating checks are performed under the Self-protection regime and Hydro-Québec Distribution's safety standards (*D.25-05*).

11 Removal of safety measures in a work zone

a) Worker in charge (WIC)

Once the work has been completed, the WIC makes sure that all safety measures they and the team members have carried out in the zone are removed as follows:

- Evacuate unrequired personnel, notify them that the work zone has been closed, and prohibit anyone from returning to or accessing the area
- Remove the individual padlocks of personnel not required for the removal of the safety measures or

have them sign the Safety Measures Sheet when no lockout box is used.

Together with the personnel required for the removal of the safety measures, the WIC:

- Removes or has someone remove the markings, if required
- Removes or has someone remove the grounds, if required
- Removes the individual padlocks with the personnel or has them sign the Safety Measures Sheet when no lockout box was used
- Makes sure that all the lockout devices they and their team have installed have been removed using the Safety Measures Sheet and, where applicable, the Lockout Sheets once the protection being provided is no longer required (*HQ-SST-M-1002*)
- If a designated WIC is present under the Work Authorization regime: They remove their individual padlock from the designated WIC's lockout box and hand over their signed Safety Measures Sheet to the designated WIC

Lockout Sheets must be used when they have been drawn up for the work to be performed.

b) Designated WIC (Work Authorization)

Once the work has been completed, the designated WIC makes sure that all safety measures implemented are removed by:

- Ensuring that the WICs have evacuated all personnel that are not required in each work zone and have prohibited anyone from returning to or accessing the area

- Ensuring that they have received the completed Safety Measures Sheet(s) from the WICs
- Removing their individual padlock from the lockout box or has the Safety Measures Sheet signed by the other WICs when no lockout box was used

Underground system:

Together with the workers required for the removal of the safety measures, the designed WIC in the underground system:

- Removes or has someone remove the grounds
- Removes, together with the workers, the individual padlocks from the lockout box or has the Safety Measures Sheet signed when no lockout box was used

Note: In the underground system, when personnel are only needed to remove the grounds, each worker must use their individual padlock to lock out the lockout box of the WIC or designated WIC and sign the Safety Measures Sheet before proceeding. Each worker removes the padlock from the lockout box once the grounds have been removed or signs the Safety Measures Sheet when no lockout box was used.

12 End of work

12.1 End-of-work notice

When a safety regime is issued by the operator, the WIC or designated WIC provides the operator with the end-of-work notice by returning the regime number and indicating the state in which the facility is being returned.

For the actions listed in 4.3.1 I and II, no end-of-work notice must be provided to the operator under this regime.

When customers are affected by the work in 4.3.1 III or when work is done on the devices listed in 4.3.1 IV, the WIC provides the operator with the end-of-work notice by indicating the state in which the facility is being returned.

The WIC or designated WIC signs the Safety Measures Sheet.

I Work Authorization

When there is a communication gap, the WIC, upon returning, provides the operator with the information required to enter the outage data.

Note: The operator cannot accept the return of the designated WIC's Work Authorization until all related Work Authorizations have been returned.

12.2 Removal of lockout devices in the protected zone Work Authorization/ Removal of Hold Order

- a) Unlocking in the protected zone under a Work Authorization regime

Lockout Sheets must be used when they have been drawn up for the work to be performed.

Removal of lockout devices may be done as successive switching operations are performed.

I Priority mode

The WIC or the designated WIC makes sure that all the lockout materials they or their team have installed have been removed using the Safety Measures Sheet and, where applicable, the associated Lockout Sheets (*HQ-SST-M-1002*).

II Delegated worker mode

The WIC or designated WIC leaves the key(s) and the Safety Measures Sheet signed in the "End of work" section at a predetermined location and, where

applicable, the associated completed Lockout Sheets, and notifies the operator.

Delegated workers:

- Retrieve the key(s), the Safety Measures Sheet and, where applicable, the associated Lockout Sheets
- Confirm the end of the work by checking for the WIC's signature on the Safety Measures Sheet and, where applicable, the associated Lockout Sheets
- Remove the lockout devices using the Safety Measures Sheet and, where applicable, the associated Lockout Sheets
- Complete the Safety Measures Sheet and, where applicable, the associated Lockout Sheets

b) Removal of Hold Order

When removing the lockout on the reclosing devices of circuit breakers on non-remotely-controlled lines, the WIC makes sure that all the lockout devices they and their teams have installed have been removed.

The operator:

- Removes, or has someone remove, the Hold Order tags on the reclosing and control devices
- Puts back, or has someone put back, the reclosing fuse for the reclosing breakers
- Reconnects, or has someone reconnect, all reclosing devices
- Disconnects, or has someone disconnect, all fast neutral grounds

13 Specific types of work

13.1 Work involving overhead distribution facilities and transmission lines

When work must be performed in a work zone that involves both distribution and transmission facilities, such work is performed by two WICs: one who is authorized for work on distribution facilities and the other for transmission facilities. However, the work must be done on one facility at a time and by one WIC, with the other WIC acting as the security guard for their facility.

Each WIC contacts their operator to obtain the regime.

However, when work is to be carried out in a structure with both transmission line and distribution facilities, and if the work to be performed on the distribution facilities does not require any safety measures involving a safety regime for the transmission facilities, then no security guard is required.

Note: Following regional agreements with the various health and safety committees, work may be performed by a single WIC if the latter is authorized for both distribution and transmission facilities. The WIC must contact the Distribution Control Center (DCC) and Regional Control Center (RCC) to obtain the safety regimes.

13.2 Electricity generating facility (EGF)

An electricity generating facility (EGF) is a group of equipment used to generate electrical power. It consists of the switchyard (if applicable), the generating units, and the instrumentation and protection equipment (E.12-01, E.12-02, E.12-05, E.12-06).

Note: Only EGFs that are not operated by HQD and that have an installed capacity of 250 kW or more are covered by this section.

13.2.1 Work Authorization regime

When the establishment of the protected zone involves opening an energy-isolating device acting as an isolation point between the work zone and the EGF, all of the procedures under the Work Safety Code shall apply.

When creating the protected zone, isolation points of less than 750 V must be considered as an isolation point for the protected zone when there is a possibility of electrical backfeed.

13.2.2 Hold Order regime

The following applies:

- *The EGF must be equipped with a remote control system at the DCC to lock out its main circuit breaker (C.42-01).*
- When the remote control system is unavailable at the DCC, the EGF operator must guarantee to the Hydro-Québec operator that the terms of Section 4.4 will be met. Otherwise, the WIC opens and locks out the energy-isolating device serving as Hydro-Québec's isolation point located as close as possible to the EGF for the duration of the work.
- Reclosing is not allowed at the EGF.
- The active setting of the EGF's overcurrent protection is coordinated with the system's fast neutral setting, if equipped with one (*E.12-02*).
- The EGF is equipped with a mechanism that prevents the circuit breaker from closing when there is no voltage on the distribution line.
- All the other terms of the Work Safety Code apply.
- EGF personnel must be trained on Hydro-Québec's guidelines (e.g., Work Safety Code, Operating Code).

13.2.3 Maintenance

The maintenance of equipment used to integrate the EGF into Hydro-Québec's power system must be performed in accordance with applicable guidelines. Maintenance monitoring must be provided to Hydro-Québec in accordance with the maintenance programs indicated in the guidelines (*E.12-03*).

For an EGF with a medium- or low-voltage connection, when maintenance is performed on the transformer or disconnecting device at the EGF delivery point, an energy-isolating device serving as an isolation point must be opened by the producer and locked out by Hydro-Québec's WIC inside the EGF to protect against accidental re-energization.

13.3 Emergency de-energization

Emergency de-energization is used when a worker's safety is at risk.

Emergency de-energization is limited to the following situations:

- To eliminate the possibility of electrification, arcing during a rescue, fire, immediate danger, etc.
- To perform a switching operation on a defective or restricted facility to eliminate the possibility of arcing.
- For any other work or equipment covered by an agreement with the provincial health and safety committee (CPSS) (e.g., guideline relating to small conductors).

Emergency de-energization must only be used for safety purposes. The work is generally of short duration and the facilities must always be considered energized.

The procedure is as follows:

- Hydro-Québec or contractor personnel contacts the operator to request that the facility be de-energized, or remain so, and not be re-energized without their consent.
- Hydro-Québec or contractor personnel check for zero voltage, if applicable, depending on the type of work.
- Hydro-Québec or contractor personnel must use insulating tools, if applicable and depending on the type of work, to completely eliminate any hazards for the persons involved.

Once the hazard has been eliminated, restoration work is done according to the safety rules and measures set out in the Work Safety Code.

13.4 Management of medium-voltage underground cables

When working in underground distribution facilities containing energized or de-energized cables (new construction, dismantling), safety measures must be in place to protect personnel from any re-energization or tests on one of the existing cables.

The Work Authorization regime applies when work is done on a cable core on the distribution system.

The Work Authorization regime applies to work in a structure where one of the cables under the responsibility of an operator is stripped.

The Work Authorization regime applies to work in a structure containing a faulty cable (not localized), except when work involves isolating the faulty cable.

Given the complexity of the underground system, the different types of structures and, in some cases, shared use of underground structures with third

parties, the concession is a way to ensure the safety of people working in these structures. The terms of application of the concession are covered by a guideline (C.36-03).

13.5 Work performed by medium-voltage customers or third parties

When maintenance work must be carried out at an industrial customer's premises that requires de-energizing a Hydro-Québec medium-voltage facility, or if such work is performed by a third party that is unable to observe the minimum approach distance of a Hydro-Québec medium-voltage facility, the procedures set out in the applicable guidelines must be applied (*D.28-01, C.36-14, E.32.1-01*).

13.6 Work in Distribution substations by TransÉnergie personnel

When work is to be performed by TransÉnergie personnel on apparatuses located in Distribution substations operated at 49 kV or less (excluding substations on the Island of Montreal), a security guard from the Distribution chapter is required. However, TransÉnergie personnel must be familiar with the Distribution chapter and a worker authorized with respect to the Substation chapter must be part of the team in order to oversee the performance of the work and enforce the safety measures in the work zone.

Appendix I

Padlock Control

A) Principles

There is only one key for lockout padlocks and individual padlocks.

No copies may be made of such keys.

The name of the worker who places their individual padlock must be clearly indicated on the padlock if no record is kept.

If the key or an individual padlock is defective or if the key has been lost, only the employee involved who is present at the work site can cut their own padlock.

At all times, before authorizing that a padlock be cut, the immediate superior must make sure that doing so does not jeopardize anyone's health, safety or physical well-being.

B) Procedure to authorize the cutting of an individual padlock

If an individual lock remained attached because it was forgotten or due to an unforeseen absence, the WIC must contact their immediate superior to notify them of the situation.

Before cutting an employee's padlock, the immediate superior should always consider waiting for the employee to return the same day or on the following days. If the operator has no other choice, they may cut the padlock only after strictly following the steps outlined below:

- 1) Make sure that the employee who owns the padlock to be removed is no longer at the work site.
- 2) Use all reasonable means to reach the employee directly.
- 3) If the employee is no longer at the work site but can be reached, the immediate superior must inform them of the situation and ask them to come back to the work site to remove their padlock, if they are reasonably able to do so.
- 4) If the employee is no longer at the work site and cannot be reached, or is not reasonably able to return to the work site, the immediate superior must complete the designated form documenting all of the following actions that have been taken:
 - a) The immediate superior contacts their superior or replacement to obtain the latter's consent to authorize the forgotten padlock to be cut.
 - b) The immediate superior confirms with the WIC that the employee has left the work zone and determines whether it is safe to cut the lock.
 - c) The immediate superior, accompanied by the WIC, cuts the individual padlock that was left in place. If the immediate superior is not reasonably capable of going on site, upon receiving their superior's approval, they authorize the WIC to cut the padlock while accompanied by a team member.
 - d) The immediate superior must meet with the owner of the padlock when the latter returns to work to notify them that their padlock has been cut. The immediate superior completes the form by documenting the notice and a copy is sent to the employee and to the health and safety committee concerned.

C) Procedure to authorize the cutting of a lockout padlock

If a lockout padlock has been forgotten, after confirming that the safety regime was handed in, the immediate superior removes the padlock, or has someone remove it, using the key.

When a lockout padlock must be cut following a defect or if the key has been lost, the WIC notifies the members of their team and contacts their immediate superior to inform them of the situation. The immediate superior may authorize that a lockout padlock be cut, but must complete the required form by documenting all the following actions that were taken:

- 1) When required, make sure that the safety regime has been given to the operator.
- 2) Contact their immediate superior or substitute to obtain the latter's consent to authorize the padlock to be cut.
- 3) The immediate superior, accompanied by the WIC, cuts the padlock that was left in place. If the immediate superior is not reasonably able to come to the site, they may authorize the WIC to cut the padlock.
- 4) Fills out the form and sends a copy to the health and safety committee concerned.

D) Padlock cutting tracking form

Each time a padlock is cut, it must be entered on the appropriate form by the immediate superior and kept for one (1) year.

Appendix II

Installation of lockable energy-isolating devices

In an effort to reduce the number of non-lockable energy-isolating devices, Hydro-Québec Distribution will continue its efforts to make lockable energy-isolating devices available.

A) Energy-isolating device at the beginning of a distribution line

The first energy-isolating device of a distribution line installed outside a substation or generating station must be lockable for any new construction or when major upgrading work is planned.

B) Efficient isolation of energy-isolating devices

Energy-isolating devices that were not designed to be locked out must be securable in an efficient isolation position. They are recognized as being secured in an efficient isolation position if:

- They are only switchable using a hot stick or the isolation is performed by applying a safety regime from the Work Safety Code
- Because of their design and location in a restricted environment, they cannot be closed inadvertently
- They are equipped with a lockout tag installed in accordance with Hydro-Québec Distribution's lockout reference document (*D.24-12*)

Any energy-isolating device that meets these criteria can be introduced and used on the distribution system.

C) Blade switches

Hydro-Québec Distribution is committed to ensuring the sustainability of a lockout method for blade disconnect switches.

D) Other lockout methods

Other methods may be developed to make devices lockable and to use them following an agreement between the parties concerned.

E) Availability of energy-isolating devices

Hydro-Québec Distribution undertakes to continue monitoring electrical apparatus manufacturers to integrate lockable energy-isolating devices into the distribution system provided that such equipment complies with HQD's certification criteria.

Lockouts

Hydro-Québec Distribution will maintain a joint working group composed of union and management members. The working group's mandate is to validate the lockout protocols for non-lockable energy-isolating devices until they are replaced with lockable devices, which will no longer require the use of lockout tags.

A mandate provides a framework for the context, purpose, method of operation and roles and responsibilities of the participants and the committee.

As part of this mandate, the working group must:

- Consider the various work-related contexts in its recommendations (e.g., scheduled work, night outages, service restoration, emergency plans with mobile crews)

- Develop realistic and viable solutions in the form of an action plan with timelines, in accordance with CSA Z460-05, Control of Hazardous Energy: Lockout and Other Methods
- When new lockout means are established, validate the chosen solutions through pilot projects with users

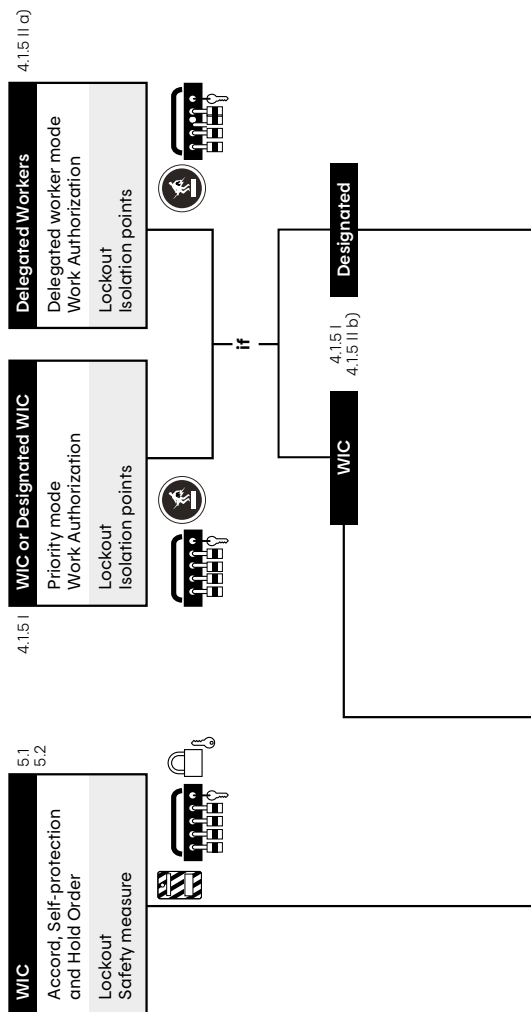
Table 1 – Lockout of protected zones

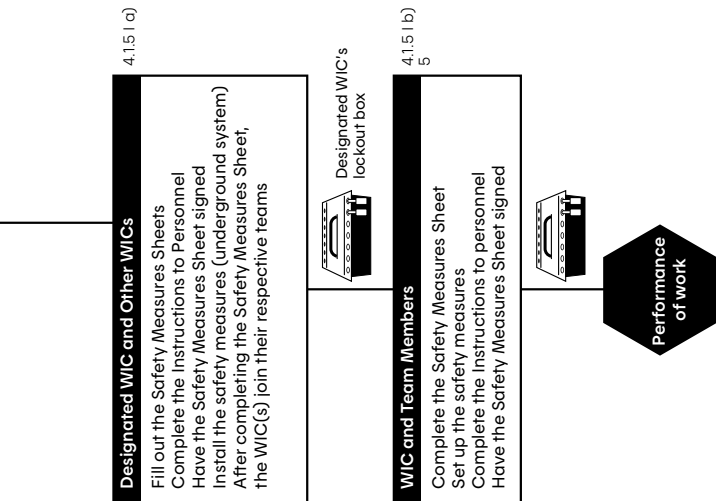
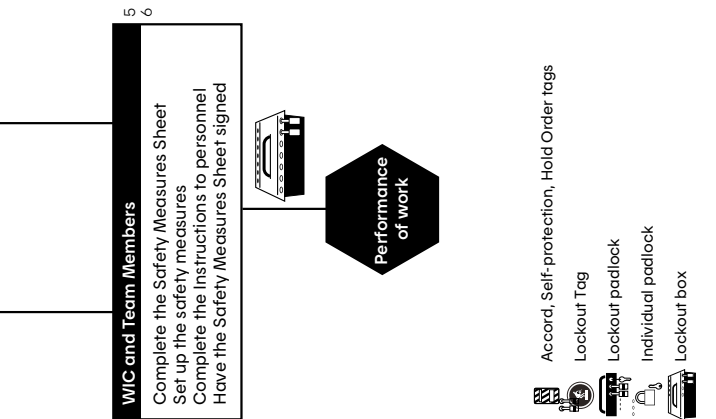
Work Site	Priority Mode	Delegated Worker Mode
Underground system Overhead system	If lockout lasts less than 60 minutes	If lockout lasts more than 60 minutes
Overhead system consisting of one or more underground system energy-isolating devices	At all times	When two trades cannot be present at the same time

Notes

- At the location where the work is being done, the lockout is always done in Priority mode.
- An agreement must be reached with the health and safety committees regarding special cases.

Table 2 – Lockout





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