

Province of Alberta

# SAFETY CODES ACT

# **ADMINISTRATIVE ITEMS REGULATION**

# Alberta Regulation 16/2004

With amendments up to and including Alberta Regulation 261/2020 Current as of March 15, 2021

# Office Consolidation

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Alberta Queen's Printer Suite 700, Park Plaza 10611 - 98 Avenue Edmonton, AB T5K 2P7 Phone: 780-427-4952 Fax: 780-452-0668

E-mail: qp@gov.ab.ca Shop on-line at www.qp.alberta.ca

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## (Consolidated up to 261/2020)

## ALBERTA REGULATION 16/2004

### Safety Codes Act

### ADMINISTRATIVE ITEMS REGULATION

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### Interpretation

- 1 In this Regulation,
  - (a) "Act" means the *Safety Codes Act*;

- (b) repealed AR 53/2016 s2;
- (c) repealed AR 261/2020 s2;
- (d) repealed AR 261/2020 s2;
- (e) "Fire Commissioner" means the Fire Commissioner employed by the Government within the Department of Municipal Affairs;
- (e.1) "fire service organization" means a fire service organization as defined in the *Municipal Government Act*;
  - (f) "plans" include drawings;
- (g) repealed AR 53/2016 s2;
- (h) repealed AR 53/2016 s2. AR 16/2004 s1;35/2007;68/2008;170/2012;53/2016;261/2020

#### General

**2** Repealed AR 53/2016 s3.

### Safety codes officer identification

**3** For the purposes of section 34(3) of the Act, the Administrator shall, in a form satisfactory to the Administrator, provide an identification card to every safety codes officer designated under section 31 of the Act.

AR 16/2004 s3;261/2020

### Safety codes officer probationary certification

**4(1)** On receipt of an application for designation as a safety codes officer, an Administrator who is authorized to issue certificates of competency and to designate the powers that a safety codes officer may exercise may issue a probationary certificate of competency to the applicant if

- (a) the Administrator believes that the applicant's training and experience are adequate to enable the applicant to function adequately as a safety codes officer in a specific discipline, or
- (b) the applicant has partial qualifications and is diligently undertaking the process of completing qualifications to permit a certificate of competency to be issued.

(2) The Administrator shall not include authorization to exercise the powers under section 49 of the Act in a designation of powers for a safety codes officer who holds a probationary certificate of competency.

(3) A probationary certificate of competency must contain an expiry date.

### Service of orders and notices

**5(1)** An order issued, confirmed, revoked or varied under the Act and a written notice required by the Act to be issued must be served

- (a) in the case of an individual,
  - (i) by personal service,
  - (ii) by leaving it for the individual with a person apparently at least 18 years of age at the individual's current or most usual dwelling place,
  - (iii) by sending it by registered mail to the individual's last known address, or
  - (iv) by sending it by facsimile or other form of electronic transmission to the individual's last known facsimile number or electronic address, if there is a record of so sending it,

and

- (b) in the case of a corporation,
  - (i) by leaving it with a director, manager or officer of the corporation, or the president, chairperson or other head officer, by whatever name that person is known, of the corporation,
  - (ii) by leaving it at the corporation's registered office,
  - (iii) by sending it by registered mail to the corporation's registered office, or
  - (iv) in the case of an extra-provincial corporation, by leaving it with, at the address of, or by sending it by registered mail to the address of, the corporation's attorney for service appointed as required by the *Business Corporations Act.*

(2) The Safety Codes Council, a sub-council of the Safety Codes Council, an Administrator or a safety codes officer may request the assistance of a peace officer in the service of an order.

### Format and content of orders

6 An order issued under the Act must

- (a) be in a written, printed or electronic form,
- (b) state that it is an order,
- (c) identify the section in the Act providing the authority under which the order is issued,
- (d) identify the safety codes officer who is issuing the order and the employer of the safety codes officer,
- (e) identify the contravention, if that is the subject-matter of the order, including the section of the code, standard or body of rules that has been contravened, if applicable, and
- (f) include
  - (i) the name of the person or persons to whom the order is issued,
  - (ii) the personal or business address of the person or persons to whom the order is issued,
  - (iii) the municipal address or legal description of the property on which the thing, process or activity that is the subject-matter of the order is located,
  - (iv) instructions and information regarding the procedure for requesting a review of the order by an Administrator,
  - (v) the contact information of the Administrator,
  - (vi) instructions and information regarding the procedure for starting an appeal of the order,
  - (vii) the contact information of the Safety Codes Council, and
  - (viii) notice that non-compliance with the instructions of the order is an offence under the Act.

AR 16/2004 s6;261/2020

### Determining the date when a code is published

**6.1(1)** For the purposes of section 65(4) of the Act, the date on which an amendment or a replacement of a code, standard or body of rules is published is,

- (a) the day, month and year of publication printed or included in the amendment or replacement, if any,
- (b) if only a month and year of publication are printed or included in the amendment or replacement, the last day of that month, and
- (c) if only the year of publication is printed or included in the amendment or replacement or if no date is printed or included in the amendment or replacement, the date, assigned by the Administrator, by order, that the Administrator considers to be appropriate, considering the date when the code became available to the public.

(2) An order referred to in subsection (1)(c) shall be published or posted on an information system as the Administrator considers to be appropriate.

AR 53/2016 s4

### Information system

7(1) Repealed AR 261/2020 s5.

(2) Entries may be made to the information system by an Administrator or the Safety Codes Council.

(3) When a person requests a search of an information system for variances or outstanding orders pursuant to section 63(3) of the Act, the information must be issued if all the applicable fees have been paid.

AR 16/2004 s7;261/2020

### Reporting Fires, Accidents and Unsafe Conditions

### **Reporting and investigating fires**

8(1) Subject to subsection (2), if the responding officer of a fire service organization knows of a fire within the jurisdiction of the fire service organization in which a person dies or suffers an injury that requires professional medical attention or in which property is damaged or destroyed, the reporting officer must report the fire to a safety codes officer for the fire discipline.

(2) A safety codes officer for the fire discipline must investigate the cause, origin and circumstances of every fire within the safety codes officer's jurisdiction in which a person dies or suffers injury that requires professional medical attention or in which property is damaged or destroyed.

(3) This section does not apply to forest fires.

AR 16/2004 s8;53/2016

### Fire investigation report

**9** A safety codes officer for the fire discipline who investigates the causes and circumstances of a fire must

- (a) within 30 days after the date of the fire started prepare and submit to the Fire Commissioner a report in a form satisfactory to the Fire Commissioner, and
- (b) immediately notify the Fire Commissioner if the safety codes officer has information that indicates the fire,
  - (i) is or may be of incendiary origin, or
  - (ii) has resulted in loss of life,

and

(c) provide to the Fire Commissioner any further information respecting the investigation that the Fire Commissioner requests.

### No fire insurance

**10** A person, firm or corporation that sustains a loss by fire of property in Alberta on which no insurance is in effect must, within 10 days after the occurrence of the fire, submit to the Fire Commissioner a report in a form satisfactory to the Fire Commissioner.

### Insurance companies reporting fires

**11(1)** An insurance company licensed to undertake contracts for fire insurance in Alberta must, within 7 days after the end of every month, submit to the Fire Commissioner a report in a form satisfactory to the Fire Commissioner regarding every fire that occurred in Alberta in the previous month and in which that company is interested as insurer.

(2) A person who sustains loss by fire of property in Alberta that is insured wholly or partially with an insurance company not licensed or registered under the *Insurance Act* must, within 10 days after complete proofs of the loss are submitted to the company with which the insurance is placed, submit a report to the Fire Commissioner in a form satisfactory to the Fire Commissioner.

(3) A person engaged in making adjustments of a loss or damage by fire in Alberta must, within 7 days after the end of every month, submit to the Fire Commissioner a report in a form satisfactory to the Fire Commissioner showing the adjustments made by the adjuster in the previous month.

- (4) A person engaged in
  - (a) making adjustments of a loss or damage by fire, or
  - (b) investigating a fire, other than a peace officer or a person making an investigation under section 34 of the Act,

must immediately notify the Fire Commissioner if that person has information that indicates the fire is or may be of incendiary origin.

### Reporting in the gas discipline

12(1) Subject to subsection (2), a person who knows of

- (a) a fatality involving a gas installation or gas equipment,
- (b) property damage estimated to exceed \$250, if it is caused by a fire or explosion, or
- (c) an accident involving a gas installation or gas equipment where the accident results in injury to a person that requires professional medical attention,

must notify a safety codes officer for the gas discipline of the circumstances and details of the accident and provide the safety codes officer with any other information that the safety codes officer requests and the safety codes officer must notify an Administrator for the gas discipline of the accident.

(2) Subsection (1) does not apply to a person who knows or has reasonable grounds to believe that the accident has been reported to a safety codes officer for the gas discipline.

### Reporting in the plumbing discipline

**13** An operator of a public water supply system who knows of an accident or an unsafe condition related to the supply or use of the public water supply system must, as soon as practicable, notify an Administrator for the plumbing discipline.

### Reporting in the private sewage disposal discipline

**14** A person who knows of an accident or unsafe condition related to the use of a private sewage disposal system must, as soon as practicable, notify an Administrator for the plumbing discipline.

### Reporting in the electrical discipline

**15(1)** Subject to subsection (2), any person who knows of

- (a) an accident to a person, a fatal accident to livestock or a power line contact involving an electrical installation or electrical equipment, or
- (b) a fire of electrical origin or suspected electrical origin

must, as soon as practicable, report the accident, contact or fire to an Administrator for the electrical discipline or to a safety codes officer and the safety codes officer must notify an Administrator for the electrical discipline.

(2) Subsection (1) does not apply to a person who knows or has reasonable grounds to believe that the accident, contact or fire has already been reported to a safety codes officer or an Administrator for the electrical discipline.

(3) After an accident described in subsection (1), no person shall remove or interfere with anything in, on or about the place where the accident occurred until permission has been granted by a safety codes officer for the electrical discipline, unless it is necessary to do so to prevent death or injury, to protect property or to restore service.

### Reporting in the elevating devices discipline

**16** An owner of an elevating device or an owner's agent must

- (a) notify an Administrator for the elevating devices discipline or a safety codes officer and the safety codes officer must notify an Administrator for the elevating devices discipline as soon as practicable after an accident involving the elevating device that results in death or serious injury to a person or damage to equipment, and
- (b) if requested by an Administrator for the elevating devices discipline, submit, as soon as practicable, a full written report of any accident involving the elevating device that results in death or serious injury to a person or damage to equipment.
- **17** Repealed AR 49/2006 s47.

### Seals and Stamps

### **Complex projects**

**18(1)** If, in the opinion of a safety codes officer, the size or complexity of a project may give rise to safety concerns, the safety codes officer may require that all plans and specifications, or any part of them, for the project's

- (a) buildings,
- (b) electrical systems,
- (c) elevating devices,
- (d) gas systems,
- (e) plumbing and private sewage disposal systems, or
- (f) repealed AR 49/2006 s47;
- (g) fire protection systems and equipment,

be imprinted with a seal or stamp affixed in accordance with the *Engineering and Geoscience Professions Act* for engineering work, or the *Architects Act* for architectural work.

(2) If, in the opinion of a safety codes officer, the size or complexity of a project may give rise to safety concerns, the safety codes officer may require that the construction of any or all of the project's

- (a) buildings,
- (b) electrical systems,
- (c) elevating devices,
- (d) gas systems,
- (e) plumbing and private sewage disposal systems, or
- (f) fire protection systems and equipment,

be reviewed during construction in accordance with the Engineering and Geoscience Professions Act or the Architects Act. AR 16/2004 s18;49/2006;53/2016;261/2020

**19** Repealed AR 49/2006 s47.

### Design of amusement rides

**20** A safety codes officer may accept plans for the design of amusement rides with a seal affixed by an engineer who is registered in any jurisdiction.

**21** to **24** Repealed AR 53/2016 s7.

# Repeals and Coming into Force

### Repeals

**25** The following regulations are repealed:

- (a) the Administrative Items Regulation (AR 83/94);
- (b) the *Administration and Information Systems Regulation* (AR 55/95).
- **26** Repealed AR 53/2016 s9.

### Coming into force

**27** This Regulation comes into force on April 1, 2004.





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Province of Alberta

# APPRENTICESHIP AND INDUSTRY TRAINING ACT

# APPRENTICESHIP PROGRAM REGULATION

# Alberta Regulation 258/2000

With amendments up to and including Alberta Regulation 119/2018 Current as of June 20, 2018

# Office Consolidation

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Alberta Queen's Printer Suite 700, Park Plaza 10611 - 98 Avenue Edmonton, AB T5K 2P7 Phone: 780-427-4952 Fax: 780-452-0668

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## (Consolidated up to 119/2018)

# ALBERTA REGULATION 258/2000

# Apprenticeship and Industry Training Act

## APPRENTICESHIP PROGRAM REGULATION

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### Definitions

- **1** In this Regulation,
  - (a) "Act" means the *Apprenticeship and Industry Training Act*;
  - (b) "Board" means the Alberta Apprenticeship and Industry Training Board;
  - (c) "certified journeyperson" means a person who holds a trade certificate under the Act;

- (d) "Executive Director" means the Executive Director appointed under the Act;
- (e) "on the job training" means the training provided to an apprentice by the apprentice's employer or supervisor and includes those circumstances under which an apprentice acquires skill and knowledge by means of work experience gained during the apprentice's apprenticeship program;
- (f) "record book" means a record book issued in respect of an apprenticeship program in which the progress of an apprentice is to be documented and includes the material or documentation known as the "blue book";
- (g) "supervisor" means,
  - (i) in the case of a compulsory certification trade, a person who is
    - (A) a certified journeyperson in that compulsory certification trade, or
    - (B) a certified journeyperson or an uncertified journeyperson in another designated trade where the task, activity or function that is being carried out by an apprentice in that compulsory certification trade is the same task, activity or function that is also carried out by a certified journeyperson or uncertified journeyperson in that other designated trade;
  - (ii) in the case of an optional certification trade, a person who is
    - (A) a certified journeyperson or an uncertified journeyperson in that optional certification trade, or
    - (B) a certified journeyperson or an uncertified journeyperson in another designated trade where the task, activity or function that is being carried out by an apprentice in that optional certification trade is the same task, activity or function that is also carried out by a certified journeyperson or uncertified journeyperson in that other designated trade;
- (h) "technical training" means the formal instruction and technical courses, or any combination of them, that are part of an apprenticeship program;

- (i) "trade regulation" means, in respect of a designated trade, the regulation under the Act that prescribes the undertakings and the tasks, activities and functions that come within that designated trade;
- (j) "uncertified journeyperson" means a person who is not a certified journeyperson but
  - who, in the opinion of that person's employer, possesses the skills and knowledge in an optional certification trade that are expected of a certified journeyperson in that trade, or
  - (ii) who
    - (A) is self-employed, and
    - (B) in respect of that self-employment primarily works in or performs one or more tasks, activities or functions in an optional certification trade.

AR 258/2000 s1;270/2006

**2** Repealed AR 46/2009 s2.

### Content of an apprenticeship program

**3(1)** An apprenticeship program in a designated trade consists of the technical training and the on the job training provided for under the applicable trade regulation.

(2) The content of the technical training and of the on the job training of an apprenticeship program consists of those matters approved by the Board after consulting with the applicable provincial apprenticeship committee.

### Term of apprenticeship

**4(1)** The term of an apprenticeship program consists of the number of periods that are prescribed for that program by the applicable trade regulation.

(2) The length of each period of an apprenticeship program is the length of time that is set out in the applicable trade regulation during which the prescribed number of hours of on the job training and the required technical training are to be completed.

### Requirements to become an apprentice

**5** To be an apprentice a person and that person's employer must have entered a contract of apprenticeship that is registered with the Executive Director under the *Apprenticeship and Industry Training Administration Regulation*.

### Requirements of employer re compulsory certification trade

**6** A person shall not employ an apprentice in a compulsory certification trade, unless

- (a) that person is a certified journeyperson or employs a certified journeyperson in that trade, and
- (b) subject to section 16, that person is able to provide to the apprentice supervision and training in the tasks, activities and functions that are carried out in that trade. AR 258/2000 s6;270/2006

### Requirements of employer re optional certification trade

**7** A person shall not employ an apprentice in an optional certification trade, unless

- (a) that person
  - (i) is a certified journeyperson or employs a certified journeyperson in that trade, or
  - (ii) is an uncertified journeyperson or employs an uncertified journeyperson in that trade,
  - and
- (b) subject to section 16, that person is able to provide to the apprentice supervision and training in the tasks, activities and functions that are carried out in that trade.

AR 258/2000 s7;270/2006

### Application for apprenticeship

**8(1)** If a person is working in a designated trade in circumstances under which that person

- (a) is receiving training, instruction, guidance or direction, or
- (b) is engaging in some other form of a learning process not referred to in clause (a)

with respect to the carrying out of tasks, activities or functions in that trade, that person and that person's employer must without delay apply to the Executive Director to enter an apprenticeship program in that trade and pursuant to that application enter into a contract of apprenticeship.

(2) During the time that a person is working in a designated trade pursuant to a subsisting application made under subsection (1), that person is to work under the same conditions and be subject to the same supervision as that of an apprentice in that trade.

(3) This section does not apply in those circumstances where a person who is carrying out work in a designated trade is doing so in accordance with Part 2, Division 1 of the Act.

### **Apprenticeship re Executive Director**

9(1) Where

- (a) a prospective apprentice is eligible to be granted or has been granted credit for previous training or experience,
- (b) the prospective apprentice is unemployed, and
- (c) in the opinion of the Executive Director, entering into a contract of apprenticeship between the Executive Director and the prospective apprentice will be of benefit to the prospective apprentice,

the Executive Director may at the request of the prospective apprentice enter into a contract of apprenticeship with the prospective apprentice.

(2) A contract of apprenticeship that is entered into under subsection (1) may not remain in force for more than one year from the day that the contract of apprenticeship is entered into unless within that year the contract of apprenticeship is transferred from the Executive Director to a person who is eligible to employ an apprentice.

### Apprenticeship re self- employment

**10** Notwithstanding section 8, where

- (a) a prospective apprentice is self-employed, and
- (b) the prospective apprentice's self-employment primarily involves working in or performing tasks, activities or functions in an optional certification or compulsory certification trade,

the prospective apprentice may, with respect to that optional certification or compulsory certification trade, enter into a contract

of apprenticeship with another person if the prospective apprentice has made arrangements for supervision and training under section 16.

AR 258/2000 s10;46/2009

### Employee's responsibilities re granting of credit

**11(1)** Where a person who is an apprentice or a prospective apprentice advises that person's employer that the person has had previous experience with respect to tasks, activities or functions in a designated trade, it is the responsibility of the employer to recommend to the Executive Director that credit for some or all of the previous experience be granted to that person if

- (a) the employer is satisfied that the person has had previous experience in respect of tasks, activities or functions that are carried out in that trade, and
- (b) in the opinion of the employer, that person is able to carry out those tasks, activities or functions in a satisfactory manner.

### (2) If

- (a) at a time that a person is granted credit for previous experience that person is not working in a designated trade,
- (b) subsequent to the granting of credit for the previous experience, that person became employed to work as an apprentice in the designated trade,
- (c) the apprentice's employer is of the opinion that the amount of credit that was granted for the previous experience is greater than the apprentice's skills actually warrant, and
- (d) the employer referred in clause (c) is the first person to employ the apprentice to work in the designated trade subsequent to the credit being granted for the previous experience,

it is the responsibility of that employer to advise the Executive Director that the amount of credit granted to that person for the previous experience should be reduced to an amount that the employer considers appropriate.

### Responsibilities of an employer

**12** It is the responsibility of a person who employs one or more apprentices in a designated trade to do the following with respect to each apprentice:

- (a) to provide for on the job training for the apprentice in those tasks, activities and functions in that trade that are carried out by the person employing the apprentice;
- (b) to ensure supervision of the apprentice as required by section 16;
- (c) to pay wages to the apprentice in accordance with section 13;
- (d) to encourage and enable the apprentice to regularly attend the technical training that is required under the apprentice's apprenticeship program;
- (e) to ensure that the appropriate entries are made in an apprentice's record book;
- (f) to submit to the Executive Director the forms and other documents that are required by the Executive Director. AR 258/2000 s12;46/2009

### Wages

**13(1)** Where a trade regulation prescribes the percentage of wages to be paid to apprentices in a trade, a person employing an apprentice in that trade must, subject to the *Employment Standards Code*,

- (a) pay wages to the apprentice at a rate that is not less than the percentage prescribed by the trade regulation, and
- (b) ensure that the apprentice is paid the required increment commencing on the date that the apprentice's record book is approved by the Executive Director.

(2) Nothing in this Regulation is to be construed so as to require a person to pay wages or prohibit a person from paying wages to an apprentice during the period of time that the apprentice is attending the technical training.

AR 258/2000 s13;46/2009

### Wages re approved programs

**14(1)** In this section, "approved program" means a program approved by the Board under which persons are provided with an opportunity to engage in apprenticeship programs who may not

otherwise have an opportunity or be able to engage in an apprenticeship program.

(2) Notwithstanding sections 12(c) and 13 but subject to the *Employment Standards Code*, where an apprentice is employed in a designated trade under an approved program, an employer employing that apprentice may, while the apprentice is participating in the approved program, pay to that apprentice wages at a rate approved by the Board that are less than the rate provided for under the applicable trade regulation.

### **Employment of apprentices**

**15(1)** Except where the applicable trade regulation does not provide for the number of apprentices that may be employed by a person in a designated trade, the number of apprentices that a person may employ in a designated trade is that number as determined in accordance with the applicable trade regulation.

- (2) Subject to subsection (2.1), where
  - (a) a person who is a certified journeyperson or an uncertified journeyperson or who employs a certified journeyperson or an uncertified journeyperson in a designated trade is eligible to employ an apprentice in the trade, and
  - (b) the number of additional apprentices that the person may employ is based on the number of additional certified journeypersons or uncertified journeypersons employed by that person,

that person, in determining the number of additional apprentices that may be employed, is to take into account only those certified journeypersons or uncertified journeypersons who will be providing supervision with respect to the work of the apprentices.

(2.1) Subsection (2) does not apply to an apprentice who is engaged in an apprenticeship program that has 3 or more periods and has completed all the requirements required or approved by the Board for advancement into the final period of the apprenticeship program.

- (3) Notwithstanding subsections (1) and (2), if
  - (a) a person carries on business in respect of which the person must use the services of, as the case may be, a certified journeyperson or an uncertified journeyperson in a designated trade,
  - (b) at a location at which the person carries on that business there is an insufficient number of, as the case may be,

certified journeypersons or uncertified journeypersons in that trade to provide those services, and

(c) due to that lack of a sufficient number of certified journeypersons or uncertified journeypersons in the trade the person is unable to carry out the work to which the person is committed,

the Executive Director may, subject to any conditions that the Executive Director considers appropriate, permit the person to employ, in addition to the number of apprentices authorized under the applicable trade regulation, extra apprentices so as to enable the person to carry out the work to which the person is committed.

(4) A person shall not employ an apprentice except in accordance with the applicable trade regulation and this Regulation. AR 258/2000 s15;102/2006;270/2006

### Supervision and training

**16** In order for a person to be able to provide to an apprentice the supervision and training for the purposes of this or an applicable trade regulation,

- (a) the supervision must be provided by a supervisor who
  - (i) is the employer of the apprentice,
  - (ii) is an employee of the employer of the apprentice, or
  - (iii) if not employed by the employer of the apprentice, is a person with whom that employer has made arrangements for the supervision of the apprentice,
- (b) the supervision must, to the satisfaction of the Executive Director, be of such a nature that
  - (i) the apprentice being supervised has access to the supervisor and is able to communicate with the supervisor in respect of the task, activity or function being supervised, and
  - (ii) the supervision provided to the apprentice by the supervisor is sufficient so that the supervisor supplies to the apprentice the technical information, knowledge and guidance that is necessary for the apprentice to develop skills in the task, activity or function that is being supervised to a standard of skill and competence that is expected of a journeyperson in the trade or of a person who has reached the

apprentice's level in the apprenticeship program, as the case may be,

### and

- (c) the training must, to the satisfaction of the Executive Director, be provided to the apprentice in such a manner that the apprentice is able to
  - (i) acquire the technical information and knowledge, and
  - (ii) develop the skills

in the tasks, activities and functions that are expected of a journeyperson in the trade or of a person who has reached the apprentice's level in the apprenticeship program, as the case may be.

AR 258/2000 s16;270/2006

### Entries in record book

**17** To the extent possible in the circumstances, the apprentice's direct supervisor is to make the appropriate entries in the apprentice's record book

- (a) on the completion by the apprentice of each period of the apprenticeship program;
- (b) in the case where the apprentice's contract of apprenticeship is transferred, at the time of the transfer;
- (c) in the case where the supervision has been provided by someone other than the apprentice's employer or an employee of the apprentice's employer, on completion of the training in the tasks, activities and functions for the trade.

### Responsibilities of an apprentice

**18** It is the responsibility of an apprentice to do the following:

- (a) to complete the required on the job training in the tasks, activities and functions for the trade as assigned by the person employing the apprentice;
- (b) to meet any additional training requirements relating to the trade that the person employing the apprentice or the applicable local apprenticeship committee or, where there is not a local apprenticeship committee, the applicable

provincial apprenticeship committee considers appropriate;

- (c) to attend regularly the technical training that is required in order for the contract of apprenticeship to be completed;
- (d) to plan for and make any necessary arrangements to meet financial needs while attending the technical training;
- (e) to acquire the text books and other supplies that are required for the apprentice to engage in the technical training;
- (f) to successfully complete in a timely manner all requirements required pursuant to the technical training and all the examinations required by the Board;
- (g) to successfully complete the term of apprenticeship;
- (h) to review with the apprentice's direct supervisor, at the completion of each period of apprenticeship, the hours worked and the on the job training completed during that period;
- (i) to ensure that the apprentice's record book is kept up to date;
- (j) to send the apprentice's record book, or otherwise ensure that it is sent, to the Executive Director on the successful completion of the requirements set out in clauses (a) to (c) and (f) to (i);
- (k) to complete the documentation required to transfer the contract of apprenticeship should the apprentice become unemployed or employed by another person;
- (l) to immediately notify the Executive Director of any change in address or in employment;
- (m) to carry the apprentice's identification card at all times while at work and to produce it on request. AR 258/2000 s18;46/2009

### **Resolution of disagreement**

**19(1)** Where a disagreement arises between an employer and an employee in respect of an apprenticeship program or a contract of apprenticeship and the parties to the disagreement are unable to settle the matter, both or either of the parties may refer the matter to the presiding officer of the applicable local apprenticeship committee for settlement.

(2) Notwithstanding subsection (1), in the event that a local apprenticeship committee does not exist to which a disagreement may be referred under subsection (1), both or either of the parties to the disagreement may refer the matter to the presiding officer of the applicable provincial apprenticeship committee for settlement.

(3) If the presiding officer of the local apprenticeship committee is unable to effect a settlement of the matter,

- (a) the presiding officer of the local apprenticeship committee, or
- (b) both or either of the parties to the disagreement,

may refer the matter to the presiding officer of the applicable provincial apprenticeship committee for settlement.

(4) If a matter is referred to the presiding officer of a provincial apprenticeship committee under subsection (2) or (3) and the presiding officer is unable to effect a settlement of the matter,

- (a) the presiding officer of the provincial apprenticeship committee, or
- (b) both or either of the parties to the disagreement,

may refer the matter to the presiding officer of the Board for settlement.

(5) Where the presiding officer of the Board renders a decision on a matter referred to the presiding officer under subsection (4), the decision is binding on the parties to the disagreement.

(6) Where the subject-matter of the disagreement or the contents of the decision of the presiding officer of the Board is a matter that may be appealed under Part 4 of the Act, an appeal of that matter under Part 4 of the Act is not to be commenced until the process provided for by subsections (1) to (4) of this section is completed and the presiding officer of the Board has rendered a decision.

(7) For the purposes of Part 4 of the Act, the 30-day appeal period commences on the day after the day that the decision of the presiding officer of the Board is served on the party wishing to appeal that decision.

(8) Where a matter is referred to a presiding officer under subsection (1), (2), (3) or (4), the following apply:

 (a) the presiding officer must, unless the parties to the disagreement otherwise agree, convene one or more meetings between the parties and the presiding officer for the purpose of resolving the disagreement;

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- (b) with the consent of the parties to a disagreement, a meeting convened under clause (a) may be conducted by means of electronic communications equipment if that equipment enables all the persons attending the meeting to communicate with each other;
- (c) the presiding officer may proceed to review the matter and consider representations made, if any, notwithstanding that a party to the disagreement fails to attend a meeting convened under clause (a);
- (d) the presiding officer must commence the review of the matter within 21 days from the day that the matter was referred to the presiding officer;
- (e) if a matter referred to the presiding officer of a committee is not resolved within 45 days from the day that the matter was referred to the presiding officer, the matter may be treated by the presiding officer or a party to the disagreement as if the presiding officer was unable to effect a settlement of the matter;
- (f) for the purposes of subsection (6), if the presiding officer of the Board does not render a decision within 45 days from the day the matter was referred to the presiding officer, a party to the disagreement may proceed as if the process provided for by subsections (1) to (4) had been completed and a decision had been rendered;
- (g) the presiding officer of the local apprenticeship committee may authorize a member of that committee to act under this section in the place of the presiding officer;
- (h) the presiding officer of the provincial apprenticeship committee may authorize a member of that committee to act under this section in the place of the presiding officer;
- (i) the presiding officer of the Board may authorize a member of the Board to act under this section in place of the presiding officer.

### Repeal

**20** The *Apprenticeship Program and Certification Regulation* (AR 1/92) is repealed.

**21** Repealed AR 119/2018 s1.

## Coming into force

**22** This Regulation comes into force on January 1, 2001.





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Province of Alberta

SAFETY CODES ACT

# CERTIFICATION AND PERMIT REGULATION

#### Alberta Regulation 295/2009

With amendments up to and including Alberta Regulation 229/2018 Current as of December 12, 2018

#### Office Consolidation

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#### (Consolidated up to 229/2018)

#### ALBERTA REGULATION 295/2009

#### Safety Codes Act

#### **CERTIFICATION AND PERMIT REGULATION**

#### Table of Contents

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- 2 Purpose
- 3 Private sewage installer
- 4 Master electrician
- 5 Restricted master electrician, rural wireman grandfathering
- 6 ID card
- 7 Certificates to be displayed
- 8 Duplicate certificates
- **9** Consequential amendment
- 10 Repeal
- 11 Expiry

#### Interpretation

**1** The definitions in the *Permit Regulation* (AR 204/2007) apply to this Regulation.

#### Purpose

**2** The certificates of competency issued under this Regulation are for the purpose of obtaining a permit under the *Permit Regulation* (AR 204/2007).

AR 295/2009 s2;39/2012

#### Private sewage installer

**3(1)** The Administrator may issue or renew a private sewage installer certificate of competency to a person who has

- (a) training in private sewage systems or in water and sewer service piping, satisfactory to the Administrator, and
- (b) paid the appropriate fee.
- (2) The Administrator shall

- (a) state the type of private sewage system or water and sewer service piping for which the holder of the certificate may obtain a permit based on the training of the holder of the certificate, and
- (b) state the term of the certificate of competency.

#### Master electrician

**4(1)** The Administrator may issue a master electrician certificate of competency to an applicant who

- (a) holds a trade certificate as defined in section 1(o)(i) or (ii) of the *Apprenticeship and Industry Training Act* in the trade of electrician,
- (b) has, in the 5 years preceding the application,
  - (i) obtained a minimum of 3 years of relevant experience in the electrical industry satisfactory to the Administrator, or
  - been actively engaged in electrical contracting for a minimum of 3 years under a restricted master electrician certificate,
- (c) has paid the appropriate fee, and
- (d) has attained a mark of at least 75% in a master electrician examination approved by the Administrator.

(2) The Administrator may issue a master electrician certificate of competency to an applicant who

- (a) satisfies the Administrator that the applicant holds a certificate that was issued in a Canadian jurisdiction and that is substantively equivalent to a master electrician certificate of competency,
- (b) has paid the appropriate fee, and
- (c) has attained a mark of at least 75% in an examination approved by the Administrator respecting the legislation applicable to electricians in Alberta.

(3) An examination fee may be refunded if, for any reason satisfactory to the Administrator, a person is unable to take the examination after having paid the examination fee.

(4) The Administrator may renew a master electrician certificate of competency issued under subsection (1) or (2) if the holder of the certificate

- - (a) has paid the appropriate fee, and
  - (b) has completed, to the satisfaction of the Administrator, any code update training that the Administrator requires the holder to complete.

(5) The Administrator may, in a master electrician certificate of competency issued under subsection (2), specify that the maximum voltage between conductors and the maximum capacity of the electrical systems for which the holder of the certificate may obtain a permit are the same as the maximums that are authorized by the certificate referred to in subsection (2)(a).

(6) The term of a master electrician certificate of competency issued or renewed under this section is one year from the date of the issuance or renewal unless the Administrator specifies a longer term.

AR 295/2009 s4;39/2012;193/2014

#### Restricted master electrician, rural wireman - grandfathering

**5(1)** The Administrator may renew a restricted master electrician certificate of competency or a rural wireman certificate of competency originally issued or renewed under the *Certification and Permit Regulation* (AR 168/2002).

(2) In the case of a restricted master electrician certificate, the holder of the certificate may obtain a permit with respect to electrical installations of not more than 300 volts between conductors with an ampacity of not more than 200 amperes.

(3) In the case of a rural wireman certificate, the Administrator shall state the areas of Alberta where the rural wireman is permitted to perform electrical work, but the Administrator may adjust these areas at any time.

(3.1) The term of a certificate renewed under this section is one year from the date of the renewal unless the Administrator specifies a longer term.

- (4) The term of the certificate of competency is
  - (a) one year from the date of issue, or
  - (b) for a period of not less than one year as specified by the Administrator.

AR 295/2009 s5;39/2012

#### ID card

**6(1)** The Administrator shall issue an identification card to a holder of a certificate of competency under this Regulation identifying the status of the holder in a form satisfactory to the Administrator.

(2) In the case of an ID card with respect to a rural wireman's certificate of competency, the card must indicate the area in which the holder may do electrical work.

#### Certificates to be displayed

**7** The holder of a certificate of competency issued under this Regulation shall

- (a) prominently display it at the holder's place of business or employment, or
- (b) have it available to be produced immediately on the request of the Administrator or a safety codes officer.

#### **Duplicate certificates**

**8** The Administrator may issue a duplicate certificate of competency under this Regulation if the Administrator is satisfied that the original has been lost, destroyed or mutilated or the name of the certificate holder has been legally changed.

#### **Consequential amendment**

**9** The *Permit Regulation* (AR 204/2007) is amended in section **9(1)(a) by adding** "within the scope of the master electrician's certification" after "system".

#### Repeal

**10** The *Certification and Permit Regulation* (AR 168/2002) is repealed.

#### Expiry

**11** For the purpose of ensuring that this Regulation is reviewed for ongoing relevancy and necessity, with the option that it may be repassed in its present or an amended form following a review, this Regulation expires on October 31, 2024.

AR 295/2009 s11;193/2014;229/2018





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Province of Alberta

SAFETY CODES ACT

# **ELECTRICAL CODE REGULATION**

#### Alberta Regulation 209/2006

With amendments up to and including Alberta Regulation 186/2018 Current as of February 1, 2019

#### Office Consolidation

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#### (Consolidated up to 186/2018)

#### ALBERTA REGULATION 209/2006

#### Safety Codes Act

#### **ELECTRICAL CODE REGULATION**

#### Table of Contents

- 1 Definitions
- 2 Electrical systems equipment
- 3 Codes declared in force
- 4 Repeal
- 5 Coming into force

#### Definitions

**1(1)** In this Regulation,

- (a) "Act" means the *Safety Codes Act*;
- (b) "certification body" means an organization accredited by the Standards Council of Canada as a certification body;
- (c) "inspection body" means an organization accredited by the Standards Council of Canada as an inspection body.

(2) The definitions in the Act and a code declared in force by this Regulation apply to the words used in this Regulation.

#### **Electrical systems equipment**

**2(1)** If a code, standard or body of rules declared in force under the Act with respect to electrical systems requires approved equipment, that equipment must meet the requirements of this section.

(2) No person shall manufacture, install, sell or offer for sale any equipment related to electrical systems for use in Alberta unless the equipment has been

(a) certified by a certification body in accordance with the certification body's terms of accreditation with the Standards Council of Canada, or

(b) inspected by an inspection body in accordance with the inspection body's terms of accreditation with the Standards Council of Canada.

(3) Subsection (2) does not apply to electrical equipment of an electric distribution system or a transmission line as defined in the *Hydro and Electric Energy Act*.

#### Codes declared in force

**3** The following codes, as amended or replaced from time to time, are declared in force in respect of electrical systems:

- (a) the CSA Standard C22.1-18 2018 Canadian Electrical Code, Part 1 (24th edition), Safety Standard for Electrical Installations, published by the CSA Group;
- (b) the Alberta Electrical Utility Code 5th Edition, April 2016, published by the Safety Codes Council. AR 209/2006 s3;14/2008;178/2009;176/2013; 126/2015;186/2018

#### Repeal

4 The *Electrical Code Regulation* (AR 145/2002) is repealed.

#### Coming into force

**5** This Regulation comes into force on September 1, 2006.

Schedule Repealed AR 126/2015 s3.



Province of Alberta

# APPRENTICESHIP AND INDUSTRY TRAINING ACT

# **ELECTRICIAN TRADE REGULATION**

### Alberta Regulation 274/2000

With amendments up to and including Alberta Regulation 233/2020 Current as of November 23, 2020

#### Office Consolidation

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#### (Consolidated up to 233/2020)

#### ALBERTA REGULATION 274/2000

#### Apprenticeship and Industry Training Act

#### **ELECTRICIAN TRADE REGULATION**

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- 3 Tasks, activities and functions

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- 5 Employment of apprentices
- 6 Wages

# Transitional Provisions, Repeals, and Coming into Force

- 7 Apprenticeship continues
- 8 Repeal
- 10 Coming into force

#### Definitions

- **1** In this Regulation,
  - (a) "apprentice" means a person who is an apprentice in the trade;
  - (b) "certified journeyperson" means a certified journeyperson as defined in the *Apprenticeship Program Regulation*;
  - (c) "electrical systems" means any type of residential, commercial, institutional or industrial building or structural electrical system and without limiting the generality of the foregoing includes
    - (i) fire alarm systems;
    - (ii) signal systems;
    - (iii) control systems;

- (iv) lighting systems;
- (v) heating and cooling systems;
- (vi) systems providing power;
- (vii) data systems;
- (viii) communication systems;
- (ix) fibre optic systems;
- (x) lightning protection systems;
- (xi) cathodic protection systems;
- (xii) grounding and bonding systems;
- (d) "technical training" means technical training as defined in the *Apprenticeship Program Regulation*;
- (e) "trade" means the occupation of electrician that is designated as a compulsory certification trade pursuant to the Apprenticeship and Industry Training Act. AR 274/2000 s1;392/2003;270/2006

#### General Matters Respecting the Trade

#### Constitution of the trade

**2** The undertakings that constitute the trade are the installation, alteration, repair, inspection, verification, commissioning, maintenance and operation of electrical systems.

#### Tasks, activities and functions

**3** When practising or otherwise carrying out work in the trade, the following tasks, activities and functions come within the trade:

- (a) interpreting electrical industry codes, including the Canadian Electrical Code;
- (a.1) erecting, assembling, removing, repairing, replacing and using scaffolding, handling devices, hoists, slings, ropes, rigging equipment and related hardware;
- (b) using hand tools, power tools, testing equipment and specialty tools required by the trade;
- (c) preparation of holes and openings for conductors, cables, raceways, boxes and fittings, fasteners and devices and making panel backboards, box supports and similar items;

Section 3		El	ECTRICIAN TRADE REGULATION	AR 274/2000		
	(d)	) selecting and specifying location and planning layout of electrical systems, components and controls from drawings, specifications, contract documents and related information;				
	(e)	sche worl	duling labour and material requirements k;	for electrical		
	(f)	testi com resis	ng electrical and electronic equipment an ponents for continuity, current, voltage a stance;	.d nd		
	(g)	insta repla ener	alling, repairing, examining, operating, re acing, altering, maintaining, connecting, r gizing and cleaning	moving, testing,		
		(i)	electric surface or flush mounted recepta junction, outlet and device boxes and co	acles, mponents;		
( (i		(ii)	feeder and distribution busways and bus	ducts;		
	(iii)	lighting fixtures and related electrical eq components;	uipment and			
	(iv)		dry cell and storage batteries and storage systems;	e battery		
		(v)	consumer's service entrance distribution metering equipment for connection to ov underground supply;	and verhead and		
		(vi)	loadcentres, panelboards, fused switch a assemblies, switchboards, switchgear, pr relays, associated circuitry and other dev power distribution;	nd breaker rotective vices for		
	(	(vii)	power transformers, regulators, capacito converters and reactors;	rs, phase		
	(	viii)	generator sets including auto start and tr systems for standby use and synchronize and their controls;	ansfer ed systems		
		(ix)	alternating current to direct current conv devices and power inverters for converse current to alternating current;	ersion ion of direct		
		()		1.1.4		

(x) electrical appliances, electrical heating, solar heating, ventilation and air-conditioning units, components and controls;

Section 3	E	LECTRICIAN TRADE REGULATION AR 274/2000
	(xi)	oil, gas, coal, electric or wood burner control systems, or any combination of them, and associated wiring;
	(xii)	infra-red heating units and other types of infra-red units, controls and components;
	(xiii)	fire alarm systems;
	(xiv)	security systems, intrusion alarms, access control, card key lock systems or similar equipment;
	(xv)	clock systems, including self-correcting or synchronized master-slave equipment and programmable time devices for signals, energy management, lighting control and similar installations;
	(xvi)	sound and visual communications systems;
	(xvii)	fibre optic systems and components;
	(xviii)	electronic devices, discrete devices, manual or automatic devices, control devices, limit switches, pilot or sensing devices, signal devices, circuits and indication lamps, panels or similar equipment and components;
	(xix)	relay, static logic or programmable control components and systems;
	(xx)	servo-mechanisms and associated circuitry, robotic systems and numerically controlled and computerized numerically controlled systems;
	(xxi)	electric motors, generators, controls, other electromechanical devices and auxiliary equipment;
	(xxii)	motor starters, motor speed controllers and braking systems, direct current solid state drives, alternating current adjustable frequency drives, magnetic drive assemblies and controls;
	(xxiii)	recording instruments and metering instruments;
	(xxiv)	grid-connected solar photovoltaic systems, including systems using storage;
	(xxv)	grid-isolated solar photovoltaic systems;

ELECTRICIAN TRADE REGULATION AR 274/2000					
(h)	insta alter testi	alling, repairing, examining, removing, re ring, maintaining, terminating, splicing, o ing, energizing and cleaning	eplacing, connecting,		
	(i)	cable assemblies;			
	(ii)	underground and overhead wiring instal	llations;		
	(iii)	high voltage conductors, cables, termina insulation materials;	ations and		
	(iv)	lighting fixtures and related electrical ecomponents;	quipment and		
	(v)	dry cell and storage batteries and storag systems;	e battery		
	(vi)	electric heat tracing cable assemblies an	id controls;		
(i) installing, repairing, examining, removing, replacing, altering, maintaining, connecting, testing and cleaning					
	(i)	raceway systems, including fittings;			
	(ii)	mechanical supports and protection for systems;	electrical		

- (iii) grounding and bonding systems;
- (j) terminating and splicing
  - (i) feeder and distribution busways and busducts;
  - (ii) fibre optic systems and components;
- (k) terminating
  - (i) electric surface or flush mounted receptacles, junction, outlet and device boxes and components;
  - (ii) lighting fixtures and related electrical equipment and components;
  - (iii) dry cell and storage batteries and storage battery systems;
  - (iv) consumer's service entrance distribution and metering equipment for connection to overhead and underground supply;
  - (v) loadcentres, panelboards, fused switch and breaker assemblies, switchboards, switchgear, protective

Section 3

relays, associated circuitry and other devices for power distribution;

- (l) programming and calibrating
  - generator sets, including auto start and transfer systems for standby use and synchronized systems and their controls;
  - (ii) relay, static logic or programmable control components and systems;
  - (iii) servo-mechanisms and associated circuitry, robotic systems and numerically controlled and computerized numerically controlled systems;
- (m) calibrating

(i)	loadcentres, panelboards, fused switch and breaker
	assemblies, switchboards, switchgear, protective
	relays, associated circuitry and other devices for
	power distribution;

- (ii) electrical heating, solar heating, ventilation and air-conditioning units, components and controls;
- (iii) oil, gas, coal, electric or wood burner control systems, or any combination of them, and associated wiring;
- (iv) electric motors, generators, controls, other electromechanical devices and auxiliary equipment;
- (v) motor starters, motor speed controllers and braking systems, direct current solid state drives, alternating current adjustable frequency drives, magnetic drive assemblies and controls;
- (vi) recording instruments;
- (n) lubricating
  - (i) loadcentres, panelboards, fused switch and breaker assemblies, switchboards, switchgear, protective relays, associated circuitry and other devices for power distribution;
  - (ii) generator sets, including auto start and transfer systems for standby use and synchronized systems and their controls;

 (iii) electric motors, generators, controls, other electromechanical devices and auxiliary equipment. AR 274/2000 s3;392/2003;108/2004;122/2014; 150/2016

#### Apprenticeship

#### Term of the apprenticeship program

**4(1)** Subject to credit for previous training or experience being granted pursuant to an order of the Board the term of an apprenticeship program for the trade is 4 periods of not less than 12 months each.

(2) In the first period of the apprenticeship program an apprentice must acquire not less than 1560 hours of on the job training and successfully complete the technical training that is required or approved by the Board.

(3) In the 2nd period of the apprenticeship program an apprentice must acquire not less than 1560 hours of on the job training and successfully complete the technical training that is required or approved by the Board.

(4) In the 3rd period of the apprenticeship program an apprentice must acquire not less than 1560 hours of on the job training and successfully complete the technical training that is required or approved by the Board.

(5) In the 4th period of the apprenticeship program an apprentice must acquire not less than 1440 hours of on the job training and successfully complete the technical training that is required or approved by the Board.

(6) Despite subsections (2) to (4), an apprentice who began the first, 2nd or 3rd period of the apprenticeship program on or after September 1, 2017 is deemed to have acquired the hours of on the job training required in the period if the apprentice acquired not less than 1500 hours of on the job training before May 14, 2020.

(7) Despite subsection (5), an apprentice who began the 4th period of the apprenticeship program on or after September 1, 2017 is deemed to have acquired the hours of on the job training required in the period if the apprentice acquired not less than 1350 hours of on the job training before May 14, 2020.

AR 274/2000 s4;165/2017;233/2020

#### **Employment of apprentices**

**5(1)** Where a person employs an apprentice, that employment must be carried out in accordance with this section.

(2) Subject to subsection (3), a person who is a certified journeyperson in the trade or employs a certified journeyperson in the trade may employ 2 apprentices and 2 additional apprentices for each additional certified journeyperson in the trade that is employed by that person at the job site.

(3) Subsection (2) does not apply to an apprentice who is engaged in an apprenticeship program in the trade and has completed all the requirements required or approved by the Board for advancement into the 4th period of that apprenticeship program. AR 274/2000 \$5;48/2003;203/2003;392/2003;114/2004;102/2006;270/2006;1/2011

#### Wages

**6(1)** Subject to the *Apprenticeship Program Regulation*, a person shall not pay wages to an apprentice that are less than those provided for under subsection (2).

(2) Subject to the *Employment Standards Code*, a person employing an apprentice must pay wages to the apprentice that are at least equal to the following percentages of the wages paid to employees who are certified journeypersons in the trade:

- (a) 50% in the first period of the apprenticeship program;
- (b) 60% in the 2nd period of the apprenticeship program;
- (c) 70% in the 3rd period of the apprenticeship program;
- (d) 80% in the 4th period of the apprenticeship program. AR 274/2000 s6;270/2006

#### Transitional Provisions, Repeals, and Coming into Force

#### Apprenticeship continues

**7** A person who immediately prior to January 1, 2001 was an apprentice in an apprenticeship program under the *Electrician Trade Regulation* (AR 98/95), continues as an apprenticeship in that apprenticeship program under this Regulation.

#### Repeal

8 The Electrician Trade Regulation (AR 98/95) is repealed.

**9** Repealed AR 165/2017 s3.

8

#### Coming into force

**10** This Regulation comes into force on January 1, 2001.





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# Employer's guide to occupational health and safety

OHS information for employers

The purpose of this guide is to help you understand Alberta's occupational health and safety (OHS) legislation and your role - as an employer - in ensuring health and safety at the work site. This guide introduces what you need to do to comply with legislation and make your work site a healthier and safer place.

## **Key information**

- The internal responsibility system is the foundation of Alberta's OHS legislation.
- It is the employer's responsibility to protect the health and safety of their workers.
- A joint work site health and safety committee (HSC) or health and safety (HS) representative, a health and safety program, and hazard assessments are fundamental employer responsibilities.
- OHS officers have authorities that enable them to enforce OHS legislation.

# Our goal - health and safety

The internal responsibility system is a foundational principle of OHS legislation. Its core premise is that everyone – including employers and workers – is accountable for workplace health and safety, each according to their authority and level of control.

Alberta's *OHS Act* is an important piece of legislation that affects you. It outlines your responsibilities as an employer, as well as the rights and responsibilities of others working at or involved with the work site. The *OHS Act* sets minimum standards to protect and promote the health and safety of workers throughout Alberta. OHS legislation also includes regulations made under the *OHS Act*. These regulations set specific rules and work together with the OHS Act.

# Does Alberta's OHS legislation apply to me?

The *OHS Act*, Regulations and Code apply to most workers and employers in Alberta, unless you are:

- under federal jurisdiction (for example, Canadian chartered banks, interprovincial transportation companies, television and radio broadcasters), or
- a farm and ranch operations owner, family member of the owner or non-waged individual.

You are an employer if:

- you employ or engage one or more workers, including workers from a temporary staffing agency,
- you are designated to represent an employer, or
- you are responsible for overseeing workers' health and safety for your corporation or employer.

An employer, along with other work site parties, has OHS responsibilities. Part 1 of the *OHS Act* defines the roles and responsibilities of each work site party, including supervisors, workers, suppliers, service providers, owners, contractors, prime contractors, self-employed persons, and temporary staffing agencies. While each work site party may have a different role, health and safety is a shared responsibility.

If you employ waged, non-family workers in a farm and ranch operation, you have employer obligations. You must follow the basic health and safety standards set out in the *OHS Act*. If you employ a domestic worker (such as nanny or housekeeper), you must also comply with the *OHS Act* and its regulations.

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# The OHS Act, Regulations and Code

The *OHS Act*, Regulations and Code provide rules to help keep your work site healthy and safe.

The OHS Act gives the government authority to make regulations and codes (or rules) about health and safety in the workplace.

The regulations address requirements related to general administrative matters and broad health and safety rules.

The OHS Code specifies detailed technical standards and health and safety rules that work site parties must comply with to fulfill their obligations. Technical requirements cover areas such as chemical hazards, equipment safety, first aid, harassment, violence and noise, to name a few.

# Role of Alberta OHS

OHS administers and enforces the Alberta government's OHS legislation. Alberta OHS has resources available to help you:

- understand work site parties' rights and responsibilities,
- meet the requirements of the legislation, and
- prevent injuries, illnesses and fatalities.

If you have questions related to OHS legislation or workplace health and safety, call the Alberta OHS Contact Centre.

- 1-866-415-8690 anywhere in Alberta
- 780-415-8690 in Edmonton and surrounding area

#### Alberta WCB

Sometimes people mistake Alberta OHS for the Workers' Compensation Board (WCB). While both report to the Minister responsible for Labour and Immigration, Alberta OHS is separate from the WCB.

The WCB's role is to see that the *Workers' Compensation Act* is followed, provide rehabilitation programs for workers suffering from job-related injuries and illnesses, and work with Alberta OHS, industry and labour to help reduce the number of workers getting hurt or sick. The WCB oversees the insurance plan funded by employers that pays workers who are injured on the job or develop illness caused by their work.

#### **OHS officers**

OHS officers conduct inspections and investigations to enforce the OHS legislation. The officers are authorized to:

- enter your work site,
- · look at and copy relevant documents,
- require you or others to provide reasonable assistance or produce information,
- inspect or take samples of any material, product or equipment or other thing being produced,
- bring along any equipment, materials or persons with expert knowledge to assist the officer,
- conduct tests, take pictures, measurements or recordings,
- require you or your designate to demonstrate the use of machinery, equipment, appliance, or other thing at the work site, and
- interview and take statements from any person at the work site or others who are not present at the work site.

If an officer believes a work site is unhealthy or unsafe, they can take steps (including issuing compliance orders, stop use orders, stop work orders), where appropriate, to monitor compliance with the legislation.

Read more in <u>Role and duties of</u> <u>government occupational health</u> <u>and safety officers</u>.



## Your responsibilities

The *OHS Act* states that you, as an employer, must do everything you reasonably can to:

- protect the health, safety and welfare of your workers, other workers at your work site and other persons at or in the vicinity of the work site,
- make your workers aware of their rights and responsibilities under the OHS legislation and of any workplace health and safety issues,
- protect your workers from harassment or violence at the work site and ensure that workers do not participate in harassment or violence,
- ensure workers are supervised by supervisors who are competent and familiar with relevant

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OHS legislation that applies to the work performed,

- ensure workers are properly trained,
- work with an HSC or an HS representative, as applicable, to share health and safety information and resolve issues in a timely manner,
- resolve health and safety concerns in a timely manner,
- provide a prime contractor, if one is required at the work site, names of all the supervisors,
- cooperate with any person exercising a duty under the OHS legislation, and
- comply with the OHS legislation.

In addition to the obligations in the *OHS Act*, an employer has other responsibilities. Some examples of these are:

- Maintaining equipment at your work site in safe working order.
- Ensuring hazardous products (such as dangerous substance or chemicals) are properly labeled and stored, and safety data sheets are readily available to workers.
- Ensuring workers have the skills and training they need to do their jobs safely, including but not limited to training on:
  - work practices and procedures,
  - how to safely use equipment, and
  - how to select and use personal protective equipment that they require.



According to the OHS Act, to 'train' means to give information and explanation to a worker with respect to a particular subject matter and to

require a practical demonstration that the worker has acquired knowledge or skill related to the subject matter.

You must also provide health and safety information. This is information that may affect the health and safety of a person at a work site. It includes information about hazards at the work site, hazard controls and work practices and procedures. Health and safety information does not include personal information about an identifiable individual, confidential proprietary information or trade secrets.

You have the duty to:

- make OHS information readily available to the HSC or HS representative, workers and the prime contractor,
- make OHS legislation readily available,
- ensure OHS reports, plans or procedures are in writing and readily available,
- ensure OHS orders or notices are posted or readily available, and
- ensure HSC minutes are posted or readily available.



Employers must address harassment or violence at the work site to ensure workers are not subject to, or do not participate in, harassment or violence at the work site.

Note that the above represents only some highlighted responsibilities of the employer. There are many other employer obligations found throughout the *OHS Act*, Regulations and Code. As an employer, you must ensure compliance with all such obligations.

# Workers' rights and responsibilities

Employers need to be aware of workers' rights and responsibilities under the internal responsibility system. Under the *OHS Act*, workers have three fundamental rights:

- the right to know
- the right to participate
- the right to refuse dangerous work

Workers also have duties under the *OHS Act*. These include but are not limited to, the following:

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- work in a manner that ensures the health and safety of themselves and others,
- cooperate with you, the supervisor or any other person to protect their health and safety,
- use safety devices and wear personal protective equipment,
- refrain from causing or participating in harassment or violence,
- report concerns about unsafe or harmful work site acts or conditions,
- cooperate with any person exercising a duty under the OHS legislation, and
- comply with the OHS legislation.



Learn more about workers' rights and responsibilities in <u>Worker's</u> <u>guide to occupational health and</u> <u>safety</u>.

# HSCs and HS representatives

The purpose of the HSC or HS representative is to ensure worker participation in health and safety, and encourage worker and employer cooperation. HSCs and HS representatives help serve as internal monitoring to ensure ongoing effectiveness of OHS at the work site.

Larger employers (with 20 or more full-time and parttime workers) must establish an HSC for work lasting 90 days or more. HSCs consist of worker and employer representatives who meet on a regular basis to discuss and resolve work site health and safety issues.

If you're a smaller employer (with five to 19 full-time and part-time workers), you must designate an HS representative for work lasting 90 days or more.

HSCs and HS representatives have similar duties. These include inspecting the work site at regular intervals, participating in hazard identification and incident investigations, and making recommendations respecting the health and safety of workers. HSC and HS representative duties are set out in the OHS legislation, including but not limited to sections 19 and 20 of the OHS Act.



As an employer, you are required to ensure the cochairs of the HSC or the HS representative receive appropriate training.

During an Alberta OHS work site inspection, an OHS officer will request the HSC co-chair who represents the workers or the co-chair's designates, or the HS representative to be present.

Find more about HSCs and HS representatives in the publication <u>Health and safety committees and</u> <u>representatives.</u>



# Health and safety program

If you have 20 or more workers, you must set up a health and safety program in consultation with the HSC, and implement the program. A health and safety program is a coordinated system of procedures, processes and other measures that is designed to be implemented in order to promote continuous improvement in workplace health and safety and reduce injuries and illnesses.

The OHS Act requires the program to include certain elements and the program must be reviewed and updated at least every three years. The required elements are:

- a health and safety policy,
- hazard assessment and control,
- an emergency response plan,
- a statement of OHS responsibilities of the employer, supervisors and workers at the work site,
- a schedule and procedures for inspection of the work site,
- procedures for when another employer or selfemployed person is working at the work site,
- health and safety orientation and training for workers and supervisors,
- procedures for investigating incidents, injuries and refusals to work,
- procedures for worker participation in work site health and safety, including inspections and

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investigation of incidents, injuries and refusals to work,

- procedures for reviewing and revising the health and safety program, and
- any other elements required by the regulations.

If you employ fewer than 20 workers, no program is required. However, you must still have documentation in place that meets the requirements established by the legislation. This includes but is not limited to, hazard assessment and control and an emergency response plan.

Learn more in the publications Health and safety programs and Participation in health and safety for small business owners and workers.



### Hazard assessment

You must conduct a hazard assessment of your work site and implement measures to eliminate or control the hazards identified, even when you're not required to set up a health and safety program.

Every workplace has situations, conditions or things that may be dangerous to health and safety of workers. The hazard assessment and control process is a documented approach to prevent work-related injury or illness.

A team approach is necessary when doing hazard assessments. If you have an HSC or an HS representative, they must get involved. You must also involve workers affected by the hazards.

In addition, you must ensure that all workers who may be affected by the hazards are familiar with the necessary health and safety measures or procedures to keep themselves and others healthy and safe on the job.

Read more and find customizable hazard assessment templates in <u>Hazard Assessment and Control: a</u> <u>handbook for Alberta employers</u> <u>and workers</u>.



## Right to refuse dangerous work

A worker has a right to refuse work if they believe on reasonable grounds that there is a dangerous condition at the work site, or that the work is a danger to themselves or others. OHS considers that dangerous conditions include health and safety hazards that are not normal for the job, or normal hazards that are not properly controlled.

A work refusal is a last resort to address work site dangers. Employer and worker obligations in the OHS legislation should make work refusals unnecessary. As an employer, you have an obligation under the OHS Act to address health and safety concerns raised by workers and other work site parties, and under the OHS Code, to control any hazards at the work site. You must ensure your workers understand the hazards at the workplace, know what needs to be reported and have the support to exercise their right.

If a worker determines that they need to refuse to do particular work, they must promptly report the refusal and the reasons for it to the employer, supervisor or another designated person. As an employer, you are required to look into and eliminate the danger if it exists.

The worker is entitled to the same wages and benefits that they would have received had the refusal not taken place. You may temporarily reassign the worker to alternate work while the work refusal situation is being resolved.

You may reassign the work to other workers after you determine that no dangerous condition exists. When reassigning the work, you must advise the other workers (in writing) of the refusal and the reason for it, and make them aware of their own right to refuse the work.

Unless the dangerous condition is remedied immediately, you must prepare a written report of the worker's refusal to work, the employer's investigation into the refusal and any actions taken. A copy of the report must be given to the worker who refused the work and the HSC or HS representative, if one exists. The report cannot contain any personal information about the worker who refused to work.

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If they are not satisfied that the employer has addressed the dangerous condition, workers or other persons present during an inspection of the dangerous conditions may file a complaint with Alberta OHS. An OHS officer will investigate the complaint and issue a written report to the worker, the employer, the HSC or HS representative if one exists, and any other person who

filed the complaint.



For more information on work refusals, read <u>*Right to refuse</u></u> dangerous work*.</u>

# Discriminatory action complaints



An employer cannot take discriminatory action (such as termination, layoff, demotion, transfer, change in job location, etc.) against a worker for exercising their

rights and duties under OHS legislation.

Workers may file a complaint with Alberta OHS if they have been subjected to discriminatory action.



For more on this topic, read *Discriminatory action complaints*.

# Reporting injuries and incidents



You must report an injury or incident to Alberta OHS if it falls into any of the following categories:

- reportable serious injury or incident,
- potentially serious incident (PSI), or
- incident at a mine or mine site.

You must call reportable serious injuries or incidents in to the OHS Contact Centre as soon as possible.

1-866-415-8690 anywhere in Alberta

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• 780-415-8690 in Edmonton and surrounding area

Reportable serious injuries or incidents include:

- an injury or incident that results in the death of a worker,
- an injury or incident that results in a worker being admitted to a hospital,
- an unplanned or uncontrolled explosion, fire or flood that causes or may cause a serious injury,
- the collapse or upset of a crane, derrick or hoist,
- the collapse or failure of any component of a building or structure necessary for structural integrity, or
- an injury or incident or a class of injuries or incidents specified in the regulations.

You must report potentially serious incidents (PSIs) using the <u>online incident reporting</u> service. A PSI is any event where a reasonable and informed person would determine that under slightly different circumstances, there would be a high likelihood for a serious injury to a person.

A PSI is not limited to workers and it does not require the occurrence of an injury.

When determining whether an incident is a PSI, consider the following factors:

- actual circumstances of the incident (person, place, time, work practices being followed),
- hazards present at the time of the incident,
- appropriate controls in place at the time of the incident,
- slightly different circumstances (timing, distance, body position, etc.) that may have resulted in a serious injury, and
- similar incidents that have occurred within the employer or prime contractor's operations in the past two years that resulted in a serious injury.

If you are an employer at a mine or mine site, you must report certain incidents. To learn more, visit the <u>Report mine or mine site incidents</u> web page.



An OHS officer may investigate. The

officer may conduct interviews and gather evidence to determine what happened. The *OHS Act* defines the powers of the officers. You, your workers and

other work site parties are required to cooperate with the officer. The officer will prepare an investigation report summarizing the circumstances of the incident.

You are also required to carry out your own independent investigation of the incident with the participation of the HSC or HS representative, as applicable. Once the investigation is complete, you must provide a copy of the report to the HSC or HS representative. If there is no HSC or HS representative, you must share the report with your workers.

You must ensure the investigation report of serious injuries or incidents is readily available and provided to Alberta OHS upon request. For PSIs, the employer must submit the investigation report to Alberta OHS using the online reporting service.

Notification to Alberta OHS is separate from any notice you are required to give to the WCB or other local authorities, like the police.

For more information, see the publications: <u>Reporting and</u> investigating injuries and incidents and <u>Reporting and investigating</u> potentially serious incidents.



# Acceptances and approvals

The OHS legislation may specify mandatory procedures, processes, standards, requirements, substance control, service, first aid service, first aid equipment and equipment. If you want to do things in a different way, you may apply for an acceptance requesting permission to use alternative approaches. If you can satisfy Alberta OHS that your choice offers equal or greater protection to workers than the requirements specified in the legislation, an acceptance may be issued. Acceptance applications must be in writing and provide specific details for Alberta OHS to make a decision.

Acceptance applications process must include the results of consultations with the HSC, HS representative and/or other affected workers, as applicable. You must also make your workers and

other parties aware of the acceptance. This includes posting a copy of the application at the work site and sharing a copy of the application with the HSC or HS representative, if one exists. Once you receive the acceptance, you must post it at the work site or inform the workers who are affected by the acceptance.

Some specific provisions of OHS legislation require Alberta OHS to approve a process, equipment, standard, course or training agency, among other things. Practices or procedures for HSCs that differ from those listed in the *OHS Act* also require an approval. Approval applications must be in writing and provide specific details for Alberta OHS to make a decision.

When considering an approval request, Alberta OHS can require you to consult with the HSC or the HS representative, individual workers and other parties about the application.

For more information, read Applying for an OHS acceptance or approval.



### Non-compliance

It is in everyone's best interests to provide healthy and safe work sites and proper training, and to make sure that your workers follow safe and healthy practices. However, if you, your workers or other work site parties don't take the necessary steps to do so, the *OHS Act* can be used to compel all parties to follow the rules.

#### **OHS orders**

The OHS Act gives OHS officers authority to issue orders, which require work site parties to take measures that result in compliance with the OHS legislation. Types of orders include:

- Compliance orders note instances of observed non-compliance and the actions required to be taken to achieve compliance by a specified date.
- Stop use orders require equipment be shut down or taken out of service if it appears unhealthy or unsafe to operate.
- Stop work orders stop work that is being done in an unhealthy or unsafe manner and can apply

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to an entire work site, multiple work sites of a single employer or to a certain activities or areas of work site.



The person who receives a compliance order must report back to Alberta OHS on the corrective measures taken. They must also provide a copy of the report

to their HSC or HS representative and post the report at the work site.

#### Ticketing and administrative penalties

OHS officers have authority to write immediate, on-the-spot tickets for specific contraventions of OHS legislation against employers, workers, supervisors and self-employed persons who put their own or others' health and safety at risk. Ticket amounts range from \$100 to \$500 per violation. A 15% victim surcharge is applied to each ticket.

Preventive in nature, administrative penalties encourage compliance and are issued by Alberta OHS for serious or repeat non-compliance with OHS legislation. An officer may refer a regulated work site party for an administrative penalty when the OHS officer is of the opinion that a person has contravened the OHS legislation, has failed to comply with an order, acceptance or approval, or makes a false statement or gives false or misleading information to an officer.

Administrative penalty amounts are a maximum of \$10,000 per day, per contravention, and are determined on a case-by-case basis.

Some of the factors that are considered in deciding an administrative penalty are:

- the severity of the contravention,
- risk of harm resulting from the contravention,
- the regulated party's compliance history, including orders, violation tickets, other interactions with OHS, and
- whether there is a demonstrated commitment to health and safety.

For more information, see <u>OHS</u> orders, <u>OHS violation tickets</u> and <u>OHS administrative penalties</u> on the <u>OHS Compliance and</u> <u>enforcement</u> web page.



#### Prosecutions

If you, your workers or other work site parties (for example, supervisors) break the rules of the *OHS Act*, the regulations or the OHS Code, or ignore what an OHS officer says, charges can be laid. Problems may be resolved in court if people ignore the law or do not cooperate and fix workplace health and safety problems. Conviction on a first offense can lead to a fine up to \$500,000, plus \$30,000 each day an offence continues and/or a jail term of up to six months per violation. A second conviction can result in a fine of up to \$1,000,000 plus \$60,000 each day an offense continues and/or a jail term of up to one year per violation.

In certain cases involving serious injury or death, criminal negligence charges can be laid. In such cases, the maximum jail penalties are 10 years for each person injured and life imprisonment for each person killed. Federal legislation amended the Canadian Criminal Code that established legal duties for workplace health and safety and imposed serious penalties for

violations that result in injuries or death.



For more information, see the OHS investigations web page.

# Review and appeal an OHS order, decision or action

If you receive an order from OHS or disagree with an OHS decision, you can take steps to have the matter reviewed.

#### **Director review**

A person receiving an order or decision from an OHS officer may request a review by a Director of Inspection (with exception of discriminatory action orders.)

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A Director of Inspection has the authority to:

- confirm, vary or revoke an order or decision,
- make any other order the director considers reasonable, and
- refer the matter to the Alberta Labour Relations Board (ALRB).



If you want to have an order reviewed, you must file a request for a director review within 30 days of receiving the order.

#### Alberta Labour Relations Board appeals

The ALRB hears appeals of various matters including orders or decisions by a Director of Inspection, discriminatory action orders, administrative penalties, decisions from director reviews, etc.

The ALRB has the authority to:

- confirm, vary or revoke an order or decision, and
- reject to hear an appeal when it determines the matter is without merit.

For more information, see <u>Request a review of an OHS</u> <u>order or decision</u> and <u>Appeal an</u> <u>OHS action</u> on the <u>OHS</u> <u>Compliance and enforcement</u> web page.




# Contact us

# **OHS Contact Centre**

Report serious incidents, make immediate danger complaints, ask OHS questions Anywhere in Alberta

• 1-866-415-8690

- Edmonton and surrounding area
- 780-415-8690
- Deaf or hearing impaired
- 1-800-232-7215 (Alberta)
- 780-427-9999 (Edmonton)

# File a complaint online ohsComplaintsPortal.labour.alberta.ca

Online incident reporting Potentially serious, mine or mine site incidents oir.labour.alberta.ca

Website alberta.ca/OHS

# Get copies of the OHS Act, Regulations and Code

Alberta Queen's Printer gp.gov.ab.ca

Occupational Health and Safety alberta.ca/ohs-act-regulation-code.aspx

# For more information

Applying for an OHS acceptance or approval (LI030-3) ohs-pubstore.labour.alberta.ca/li030-3

Discriminatory action complaints (LI061) ohs-pubstore.labour.alberta.ca/li061

Hazard assessment and control (BP018) ohs-pubstore.labour.alberta.ca/bp018

Health and safety committees and representatives (LI060) ohs-pubstore.labour.alberta.ca/li060

Health and safety programs (LI042) ohs-pubstore.labour.alberta.ca/li042

OHS compliance and enforcement alberta.ca/ohs-compliance-enforcement.aspx

OHS investigations https://www.alberta.ca/ohs-investigations.aspx

Participation in health and safety for small business owners and workers (LI055) ohs-pubstore.labour.alberta.ca/li055

Report mine or mine site incidents alberta.ca/report-mine-or-mine-site-incidents.aspx

Reporting and investigating injuries and incidents (LI016) ohs-pubstore.labour.alberta.ca/li016

Reporting and investigating potentially serious incidents (LI016-1) ohs-pubstore.labour.alberta.ca/li016-1

Right to refuse dangerous work (LI049) ohs-pubstore.labour.alberta.ca/li049

Role and duties of government OHS officers (LI046) ohs-pubstore.labour.alberta.ca/li046

Workers' Compensation Board wcb.ab.ca

Worker's guide to occupational health and safety (LI008)

ohs-pubstore.labour.alberta.ca/li008

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# MASTER ELECTRICIAN CODE OF ETHICS

# A. Preamble

Master electricians are expected to conduct themselves in a way that aligns with this Code of Ethics (code). The code does not cover every scenario that master electricians may encounter, but all master electricians are expected to guide their action by the spirit and intent of this code.

It is recognized that master electricians may be subject to more than one code of ethics through professional associations or employment. This code is not intended to conflict with any other code of ethics, and master electricians shall discuss any potential conflicts with the Administrator of Certification.

# **B.** Alberta Master Electricians

Master electricians shall:

- 1. conduct themselves in an ethical, professional, and responsible manner;
- 2. carry out their duties in accordance with the *Safety Codes Act* and other applicable legislation, regulations, bylaws, and policies;
- 3. promote and uphold the overriding value of safety in regard to themselves, public well-being, and property;
- 4. perform their duties with integrity, independence, and objectivity;
- 5. conduct work only in areas in which they are qualified;
- 6. maintain competence and endeavor to extend their technical and business knowledge, skills, and abilities through ongoing education and professional development;
- 7. model a positive regard for the profession and a commitment to the safety codes system in Alberta;
- 8. preserve confidentiality with respect to all information that comes to their knowledge from employment, unless the law requires or authorizes disclosure; and
- 9. avoid any real or reasonably perceived conflicts of interest.



Province of Alberta

# SAFETY CODES ACT

# Revised Statutes of Alberta 2000 Chapter S-1

Current as of June 2, 2021

# Office Consolidation

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Alberta Queen's Printer Suite 700, Park Plaza 10611 - 98 Avenue Edmonton, AB T5K 2P7 Phone: 780-427-4952 Fax: 780-452-0668

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\*The year of first publication of the legal materials is to be completed.

#### Note

All persons making use of this consolidation are reminded that it has no legislative sanction, that amendments have been embodied for convenience of reference only. The official Statutes and Regulations should be consulted for all purposes of interpreting and applying the law.

## **Amendments Not in Force**

This consolidation incorporates only those amendments in force on the consolidation date shown on the cover. It does not include the following amendments:

2015 c10 s19 amends s38, s25 amends s51.

# Regulations

The following is a list of the regulations made under the *Safety Codes Act* that are filed as Alberta Regulations under the Regulations Act

	Alta. Reg.	Amendments
Safety Codes Act		
Administrative Items		49/2006, 35/2007,
		68/2008, 52/2011,
		170/2012 52/2016

		170/2012, 53/2016,
		261/2020
Administrative Penalties	207/2017	139/2021
Alberta Safety Codes Authority Order	29/2016	56/2020
Amusement Rides Standards		32/2005, 283/2006,
		180/2012, 206/2016,
		200/2019

Building Code Certification and Permit	31/2015	20/2019 39/2012, 193/2014,
Electrical Code	209/2006	229/2018 14/2008, 178/2009,
		176/2013, 126/2015, 186/2018
Elevating Devices Codes	192/2015	
Elevating Devices, Passenger Ropeways		
and Amusement Rides Permit		170/2012, 39/2015,
		16/2017
Exemption		1/2008, 209/2010,
		22/2012, 159/2013,
		156/2015, 217/2016,
		29/2019, 296/2020
Fire Code		21/2019
Gas Code	111/2010	227/2012, 193/2015
Motor Vehicle Gas Conversion		221/2004, 177/2006,
		179/2015, 262/2020
Passenger Ropeways and Passenger		
Conveyors Standards		227/2012, 78/2017
Permit		266/2009, 295/2009,
		223/2010, 40/2012,
		212/2013, 17/2015,
		31/2015, 194/2015,
		99/2016, 207/2016,
		207/2017, 208/2017,
		22/2019
Plumbing Code	119/2007	154/2012, 227/2012,
C		208/2016, 23/2019
Power Engineers		270/2004, 24/2013,
-		218/2013, 45/2014,
		84/2014, 20/2018
Pressure Equipment Exemption		
Order		158/2014, 262/2018,
		206/2019
Pressure Equipment Safety		150/2008, 238/2009,
		138/2011, 227/2012,
		218/2013, 85/2014,
		158/2014,195/2015
Pressure Welders		97/2009, 71/2010,
		103/2014, 35/2020
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		8/2007, 264/2009,
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# SAFETY CODES ACT

Chapter S-1

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HER MAJESTY, by and with the advice and consent of the Legislative Assembly of Alberta, enacts as follows:

#### Interpretation

**1(1)** In this Act,

- (a) "accredited agency" means a person designated as an accredited agency under this Act;
- (b) "accredited corporation" means a corporation designated as an accredited corporation under this Act;
- (c) "accredited municipality" means a municipality that is designated as an accredited municipality under this Act;
- (d) "accredited regional services commission" means a regional services commission established under the *Municipal Government Act* that is designated as an accredited regional services commission under this Act;
- (d.1) "administrative penalty" means an administrative penalty referred to in section 57.1;
  - (e) "Administrator" means an Administrator appointed under this Act;
- (e.1) "Authority" means the Alberta Safety Codes Authority established under section 30.1;
  - (f) "building" includes a structure and any part of a building or structure, but does not include any thing excluded by the regulations from the definition of building;
  - (g) "construction" includes alteration, installation, repair, relocation, demolition and removal;
  - (h) "contractor" means a person or organization that does or undertakes to do, either for the person's or organization's own use or benefit or for that of another, whether or not for the purposes of gain, any process or activity to which this Act applies;

Section 1	SAFETY CODES ACT	RSA 2000 Chapter S-1
(i)	"Council" means the Safety Codes Council under this Act;	established
(j)	"design" includes plans, diagrams, drawing specifications depicting the arrangement an any thing, process or activity to which this A	s and d operation of Act applies;
(k)	"electrical system" means an assembly or an assembly of electrical equipment or compo- intended to be used for the generation, trans distribution, control or utilization of electric does not include any thing excluded by the the definition of electrical system;	ny part of an nents used or smission, e energy, but regulations from
(1)	"elevating device" means a passenger eleva elevator, dumbwaiter, emergency elevator, inclined passenger lift, manlift, passenger re lift, moving walk, personnel hoist, lift for pe disabilities, or amusement ride, as defined is or anything designated by the regulations as device;	tor, freight escalator, opeway, material ersons with n the regulations, s an elevating
(m)	"evaluation" includes load, destructive and tests;	non-destructive
(n)	"fire protection" includes fire detection, pre suppression;	evention and
(0)	"gas" means any gas or compressed gas or a dilution of gases and includes any combusti flammable fluid, but does not include any g dilution of gases or combustible or flammable excluded by the regulations from the definit	any mixture or ble or as, mixture or ble fluid tion of gas;
(p)	"gas system" means any equipment or insta intended to be used in or in conjunction wit transmission, storage, distribution, supply o does not include any thing excluded by the the definition of gas system;	llation used or h the processing, r use of gas, but regulations from
(q)	"information system" means an information maintained under section 58;	ı system
(r)	"local authority" means	
	(i) a council of a city, town, village, summer municipal district,	er village or

(ii) for the purposes of this Act, a settlement council of a Metis settlement,

Section 1	SAFETY CODES ACT	RSA 2000 Chapter S-1
	(iii) a board of administrators of a new town,	
	(iv) the Minister responsible for the <i>Municipa Act</i> , in the case of an improvement district	<i>al Government</i> et, or
	<ul> <li>(v) the Minister responsible for the Special A case of a special area;</li> </ul>	<i>Ireas Act</i> , in the
(s)	"Metis patented land" means patented land a <i>Metis Settlements Act</i> ;	s defined in the
(t)	"Minister" means the Minister determined up of the <i>Government Organization Act</i> as the M responsible for this Act;	nder section 16 Ainister
(u)	"municipality" includes, for the purposes of Metis settlement;	this Act, a
(v)	"owner" includes a lessee, a person in charge has care and control and a person who holds person has the powers and authority of owne for the time being exercises the powers and a ownership;	e, a person who out that the ership or who authority of
(w)	"person" includes a partnership and a band a <i>Indian Act</i> (Canada);	s defined in the
(x)	"plumbing system" means the whole or any drainage system, a venting system or a water does not include any thing excluded by the re the definition of plumbing system;	part of a system, but egulations from
(y)	"pressure equipment" means a boiler, a fired coil, a thermal liquid heating system and oth designed to contain expansible fluid under pr including, but not limited to, pressure vessels piping systems and fittings, as defined in the	-heater pressure er equipment ressure, s, pressure regulations;
(z)	"private sewage disposal system" means the part of a system for the management, treatme of sewage on the site where the sewage is ge does not include anything excluded by the re	whole or any ent and disposal nerated, but egulations;
(aa)	"quality management system" means all the planned and systematic actions needed to ena Act is complied with;	documented, sure that this
(bb)	"safety codes officer" means an individual de safety codes officer under section 31;	esignated as a

- (cc) repealed 2015 c10 s2;
- (cc.1) "sub-council" means a sub-council of the Council established under section 16.1(3);
- (cc.2) "tele-warrant" means a tele-warrant issued under section 48.1;
  - (dd) "variance" means a variance issued under this Act;
  - (ee) "vendor" includes a lessor.

(2) In this Act, a reference to "this Act" includes the regulations and bylaws made under this Act and any code, standards or body of rules declared to be in force pursuant to this Act.

(3) This Act is to be interpreted in a manner consistent with the principles of barrier-free design and access to allow persons with physical and sensory disabilities to more easily and safely access and use buildings, facilities and services to which this Act applies. RSA 2000 cS-1 s1;2015 c10 s2

## **Application of Act**

2(1) This Act applies to fire protection, barrier-free design and the design, manufacture, construction, installation, use, operation, occupancy and maintenance of

- (a) buildings,
- (b) electrical systems,
- (c) elevating devices,
- (d) gas systems,
- (e) plumbing systems,
- (f) pressure equipment, and
- (g) private sewage disposal systems.

(2) The Minister may, by order, exempt any person or municipality or any thing, process or activity from any or all provisions of this Act and attach terms and conditions to the exemption.

(3) An exemption order made under subsection (2) may be made to apply generally or specifically and to all or a particular area of Alberta.

(4) The *Regulations Act* applies to an exemption order made under subsection (2).

RSA 2000 cS-1 s2;2004 c19 s2;2015 c10 s3

## Validation of orders

**2.1(1)** The following orders are, as of the date they came into force, validated and declared for all purposes to have been validly made under section 2:

- (a) Ministerial Order No. P:002/04, an exemption regarding the GP3 Generation Facility;
- (b) Ministerial Order No. P:007/10, an exemption regarding the application of sentence 9.10.15.3(1) of Division B of the Alberta Building Code 2006.

(2) Everything done under or pursuant to the orders referred to in subsection (1) is validated and declared for all purposes to have been validly done.

2015 c10 s4

RSA 2000

Chapter S-1

# Suspension or modification of Act or regulations

2.2(1) On the making of

- (a) an order under section 52.1(1) or 52.2(1) of the *Public Health Act*, or
- (b) an order under section 18(1) or 21(1) of the *Emergency Management Act*,

and for up to 60 days following the lapsing of that order, the Minister may, by order, modify or suspend any or all provisions of this Act in relation to any thing, process or activity and may attach terms and conditions to the modification or suspension.

(2) An order of the Minister under subsection (1) may be made retroactive to a date not earlier than the date on which the order referred to in subsection (1)(a) or (b) was made.

(3) An order of the Minister under subsection (1) may be made to apply generally or specifically and to all or a particular area of Alberta.

(4) An order of the Minister under subsection (1) lapses 60 days after the order referred to in subsection (1)(a) or (b) lapses, unless

(a) the order of the Minister provides that the order of the Minister lapses on an earlier date, or

(b) the Minister terminates the order of the Minister on an earlier date.

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(5) The Minister shall publish and make available an order of the Minister under subsection (1) in the manner the Minister considers appropriate.

(6) The *Regulations Act* does not apply to an order of the Minister under subsection (1).

2020 c13 s13

#### **Crown bound**

**3** The Crown is bound by this Act.

1991 cS-0.5 s3

# Part 1 Responsibilities

#### Government

**4(1)** The Minister shall, in accordance with this Act, co-ordinate and encourage the safe management and control of any thing, process or activity to which this Act applies.

(2) The Minister shall, in accordance with this Act, co-ordinate and encourage the principles of barrier-free design and access for any thing, process or activity to which this Act applies. RSA 2000 cS-1 s4:2004 c19 s3

## Owners, care and control

**5** The owner of any thing, process or activity to which this Act applies shall ensure that it meets the requirements of this Act, that the thing is maintained as required by the regulations and that when the process or activity is undertaken it is done in a safe manner.

1991 cS-0.5 s5

#### **Design duties**

**6** A person who creates, alters, has care and control of or owns a design or offers a design for use by others shall ensure that the design complies with this Act and that it is submitted for review or registered if required by this Act, and if the design is deregistered, the person shall provide notice of its deregistration in accordance with the regulations.

1991 cS-0.5 s6

## Manufacturers' duties

7 A person who manufactures any thing or undertakes a process or activity to which this Act applies shall ensure that the thing, the process or the activity complies with this Act.

1991 cS-0.5 s7

## **Contractors' duties**

**8** A contractor who undertakes construction, operation or maintenance of or builds or installs any thing to which this Act applies shall ensure that this Act is complied with.

1991 cS-0.5 s8

## Vendors' duties

**9(1)** A person who is a vendor in the ordinary course of business, other than as an employee or an agent, shall not advertise, display or offer for sale, for lease or for other disposal, or sell, lease or otherwise dispose of, any thing to which this Act applies unless that thing complies with this Act.

(2) A person who sells, leases or otherwise disposes of a thing referred to in subsection (1) shall provide any warnings or instructions required by this Act.

(3) No person shall advertise, display or offer for sale, for lease or for other disposal, or sell, lease or otherwise dispose of, any thing that is prohibited from being sold by the regulations.

1991 cS-0.5 s9

#### Use of variances

**10(1)** An owner, vendor, contractor, manufacturer or designer of a thing, or a person who authorizes, undertakes or supervises any process or activity, to which a variance applies shall ensure that the terms and conditions of the variance are complied with.

(2) Compliance with a variance is deemed to be compliance with this Act.

1991 cS-0.5 s10

#### **Professional services**

**11** A person permitted to affix stamps or seals pursuant to the *Architects Act* or the *Engineering and Geoscience Professions Act* shall ensure that any professional service the person renders to which this Act applies, including the affixing of stamps and seals, complies with this Act.

RSA 2000 cS-1 s11;2011 c3 s33

#### Liability exemption

**12(1)** No action lies against the Crown, the Council, members of the Council, employees or officers of the Council, safety codes officers, accredited municipalities or their employees or officers, accredited regional services commissions or their employees or officers, accredited agencies or their employees or officers or Administrators for anything done or not done by any of them in good faith while exercising their powers and performing their duties under this Act.

(2) The Crown, the Council, an accredited municipality, an accredited regional services commission and an accredited agency acting in good faith under this Act are not liable for any damage caused by a decision related to the system of inspections, examinations, evaluations and investigations, including but not limited to a decision relating to their frequency and the manner in which they are carried out.

(3) The Crown, the Council, an accredited municipality and an accredited regional services commission that engage the services of an accredited agency are not liable for any negligence or nuisance of the accredited agency that causes an injury, loss or damage to any person or property.

(4) Subject to this section, nothing done pursuant to this Act affects the liability of any person for injury, loss or damage caused by any thing, process or activity to which this Act applies. RSA 2000 cS-1 s12;2015 c10 s5

# Part 2 Administration

#### **Overall administration**

**13(1)** The Minister administers this Act but an accredited municipality, an accredited regional services commission, an accredited corporation and the Authority shall provide for the administration of this Act in accordance with

- (a) the order that designated the accredited municipality, accredited regional services commission or accredited corporation, or
- (b) the order referred to in section 18(d.1) authorizing the establishment of the Authority.

(2) The Minister or the Council may, in accordance with the regulations, establish and operate safety information and education programs or services related to any thing, process or activity to which this Act applies.

RSA 2000 cS-1 s13;2015 c10 s6

# Administrator

#### Administrator appointed

**14(1)** The Minister may appoint persons as Administrators and prescribe their powers and duties and may make an order fixing or governing the terms and conditions of service, including remuneration and expenses, applicable to an Administrator if the person is not an employee as defined in the *Public Service Act*.

(2) The Minister may direct, in writing,

- (a) that an Administrator report to the Council with respect to exercising the powers and performing the duties of an Administrator, and
- (b) that the Council direct the Administrator in exercising the powers and performing the duties of an Administrator. 1991 cS-0.5 s14

#### Deemed an officer

**15** An Administrator may, in accordance with the appointment under section 14, exercise any or all of the powers and perform any or all of the duties of a safety codes officer.

1991 cS-0.5 s15

#### Safety Codes Council

#### Council

**16(1)** There is hereby established a corporation to be known as the "Safety Codes Council".

(2) On the coming into force of this subsection, a person who, immediately before the coming into force of this subsection, held an appointment as a member of the Council continues as a member of the Council until the term of office stated in the member's appointment expires or the appointment is terminated, revoked or rescinded.

(3) Subject to subsection (2), the Council consists of the persons appointed to the Council by the Minister and the persons appointed to the Council by the Board of Directors in accordance with this section.

(4) The persons appointed to the Council by the Board of Directors must include persons who are experts in fire protection, buildings, barrier-free building design, electrical systems, elevating devices, gas systems, plumbing systems, private sewage disposal systems or pressure equipment.

(5) The Board of Directors shall ensure that representatives of municipalities, business, labour and persons with disabilities are appointed to the Council from among the persons described in subsection (4).

(6) An Administrator is not eligible to be appointed to the Council.

(7) A person appointed under subsection (3)

- (a) holds office for a term not exceeding 3 years, as set out in the appointment, and
- (b) continues to hold office after the expiry of the term of office until the person is reappointed or a successor is appointed.

(8) If a member of the Council resigns or the appointment terminates, that person may, in relation to an appeal in which the person participated as a member of the Council, perform and complete the duties or responsibilities and continue to exercise the powers that the person would have had if the person had not ceased to be a member of the Council, until the appeal is completed.

(9) Subject to subsection (7)(b) and (11), a member of the Council may not hold office for a period exceeding 9 consecutive years.

(10) Breaks in service of less than 2 years shall be disregarded in determining the number of consecutive years for the purposes of subsection (9).

(11) The Minister may make an order providing that subsection (9) does not apply in respect of a specified appointment to the Council if in the opinion of the Minister that order is necessary to ensure the effective operation of the Council.

RSA 2000 cS-1 s16;2004 c19 s4;2015 c10 s7

#### Board of Directors and sub-councils

**16.1(1)** On the coming into force of this section,

- (a) the Co-ordinating Committee of the Safety Codes Council as it existed immediately before the coming into force of this section is continued as the Board of Directors;
- (b) a person who, immediately before the coming into force of this section, held an appointment as a member of the Co-ordinating Committee of the Safety Codes Council continues as a member of the Board of Directors until the term of office stated in the member's appointment expires or the appointment is terminated, revoked or rescinded;
- (c) a person who, immediately before the coming into force of this section, held the designation as the Chair of the Council continues as the chair of the Board of Directors until the term of office stated in the designation expires or the designation is terminated, revoked or rescinded;
- (d) a person who, immediately before the coming into force of this section, held a designation as an alternate to chair the Council continues as vice-chair of the Board of Directors

until the term of office stated in the designation expires or the designation is terminated, revoked or rescinded.

(2) Subject to subsection (1), the Board of Directors shall consist of

- (a) a chair appointed by the Minister as a member of the Council and as the chair of the Board of Directors,
- (b) one or more members of the Council appointed by the Board of Directors as a vice-chair of the Board of Directors, and
- (c) the members of the Council appointed by the Board of Directors as directors.

(3) The Board of Directors may establish sub-councils of the Council, including, without limitation, sub-councils relating to any thing, process or activity to which this Act applies.

- (4) A sub-council shall consist of
  - (a) the members of the Council appointed by the Board of Directors as members of the sub-council, and
  - (b) a member of the public appointed by the Minister as a member of the Council and as the public member of the sub-council.

2015 c10 s8

#### Expenses

**17** The Council may pay members of the Council travelling and living expenses while away from their ordinary places of residence in the course of their duties as members of the Council at the rates provided for in the regulations under the *Public Service Act*. 1991 cS-0.5 s17;1993 c7 s4

## **Duties and powers**

**18** The Council

- (a) shall perform its duties and responsibilities under this Act,
- (b) shall hear appeals under Part 5,
- (c) shall, on the request of the Minister, provide information about any matter related to this Act,
- (d) shall carry out any activities that the Minister directs,

Section 19	SAFETY CODES ACT	Chapter S-1
(d.1)	shall, on the order of the Minister, establish referred to in section 30.1,	1 the Authority
(e)	may promote uniformity of safety standard process or activity to which this Act applie	s for any thing, s,
(e.1)	may promote the principles of barrier-free for any thing, process or activity to which t	design and access his Act applies,
(f)	may provide a liaison between the Minister or organization interested in safety or barri- access matters governed by this Act,	and any person er-free design and
(g)	may review and formulate classifications o competency and qualifications required of certificate of competency,	f certificates of a person to hold a
(h)	may, with the consent of the Minister, revie codes and standards for accreditation, safet barrier-free design and access for any thing activity to which this Act applies and prom codes and standards, and	ew and formulate y standards and g, process or ulgate those
(i)	may	
	<ul> <li>provide advice and recommendations to about safety information, barrier-free do information, education programs and se accreditation and other information and to this Act, and</li> </ul>	) the Minister esign and access ervices, services related
	<ul> <li>with the consent of the Minister, publis the public the information and services subclause (i).</li> <li>RSA 2000 cS-1 s18;20</li> </ul>	h or provide to referred to in 04 c19 s5;2015 c10 s9
Bylaws		
<b>19</b> 1	he Council may make bylaws	
(a)	respecting the Board of Directors, sub-cour committees of the Council and the delegati or duty conferred or imposed on it, except make bylaws, to the Board of Directors, a s committee of the Council or a member of t	ncils and on of any power the power to sub-council or he Council;

RSA 2000

(b) respecting the Authority and the exercise of its powers and performance of its duties under this Act;

Section 20		SAFETY CODES ACT	Chapter S-1
	(c)	governing the calling of its meetings and the me Board of Directors, sub-councils and committee Council, and regulating the conduct of those me	eetings of the es of the eetings;
	(d)	governing the practice and procedure applicable before it;	e to appeals
	(e)	governing the business, property, operation and the Council. RSA 2000 cS-1 s	affairs of 19; 2015 c10 s10
	Staff		
	<b>20(1)</b> servic duties remun	The Council may enter into agreements to enga es of persons it considers necessary and may pre and conditions of employment and pay their sal leration and expenses.	ge the scribe their ary,
	(2) The of age profession conner remun	he Council may enter into agreements to engage nts, advisors or persons providing special, techn sional services of a kind required by the Council ction with its business and affairs and may pay the relation, fees and expenses.	the services ical or l in heir 1991 cS-0.5 s20
	Monoy		
	woney		

**21(1)** The Council, in connection with the powers conferred and duties imposed on it under this Act, may acquire real property, construct buildings or improvements or hold or dispose of real property.

(2) The Council, in connection with the powers conferred and duties imposed on it under this Act, may acquire, hold and dispose of personal property.

(3) Any money that is derived from donations that is not immediately required for the operation of the Council may, subject to the regulations, be invested only in accordance with the Trustee Act.

(3.1) Subsection (3) is subject to any trust or condition that applies to the donation.

(4) The Council may spend money only for purposes related to the powers conferred and duties imposed on it under this Act.

(5) Notwithstanding the Financial Administration Act, any money received by the Council belongs to the Council.

RSA 2000 cS-1 s21;2001 c28 s19;2006 c9 s17

RSA 2000

# Fees

**22** The Council may establish and charge fees

- (a) for anything issued or for any material, information, education program or service the Council provides,
- (b) with respect to the conduct of appeals, and
- (c) for any research that is carried out that relates to any thing, process or activity to which this Act applies.

1993 c7 s6

#### Levies

**23(1)** The Council may, with the approval of the Minister, for the purpose of enabling the Council to carry out activities and services it is directed or authorized to carry out under this Act, collect money by the levy of assessments on persons who apply for, or hold, certificates or permits or who apply to register, or register, designs.

(2) The Council may require an accredited municipality, accredited regional services commission, accredited corporation, accredited agency or other organization that issues certificates or permits or registers designs to collect the money referred to in subsection (1) and to remit it to the Council.

1994 c44 s2;1999 c26 s23

#### Levies

**24(1)** An accredited agency may, with the approval of the Minister, for the purpose of enabling the accredited agency to carry out activities and services it is directed or authorized to carry out under this Act, collect money by the levy of assessments on persons who apply for, or hold, certificates or permits or who apply to register, or register, designs.

(2) An accredited agency may, with the approval of the Minister, require an accredited municipality, accredited regional services commission, accredited corporation, accredited agency or other organization that issues certificates or permits or registers designs, to collect the money referred to in subsection (1), and the accredited municipality, accredited regional services commission, accredited corporation, accredited agency or other organization shall collect the money and remit it as directed by the accredited agency.

1994 c44 s2;1999 c26 s23

## Reports

**25(1)** The Council shall, after the end of each fiscal year, prepare and submit to the Minister an annual report consisting of a general summary of its activities in that year and a financial report.

(2) The Council may, at any time, report to the Minister on any matter related to this Act.

(3) The Minister shall lay a copy of the report described in subsection (1) before the Legislative Assembly if it is then sitting, and if it is not then sitting, within 15 days after the commencement of the next sitting.

1991 cS-0.5 s22

## Accreditation

## Accredited municipalities

**26(1)** On the application of a local authority, the Minister may, by order,

- (a) designate a municipality as an accredited municipality authorized to administer all or part of this Act with respect to any or all things, processes or activities to which this Act applies within the boundaries of the municipality, or
- (b) designate 2 or more municipalities as accredited municipalities authorized to administer in common all or part of this Act with respect to any or all things, processes or activities to which this Act applies within the boundaries of those municipalities.

(2) The Minister may include terms and conditions in an order under this section.

(3) If the Minister, on reasonable and probable grounds, is of the opinion that an accredited municipality does not comply with the requirements of this Act or the terms and conditions of its designation, or that any thing, process or activity to be administered by the accredited municipality may constitute a serious danger to persons or property, the Minister may

- (a) request the local authority to take the action necessary to correct the situation;
- (b) direct a safety codes officer appointed under section 33(1) to undertake the administration of this Act in that accredited municipality and to charge fees, in the amount provided for by the regulations,

(i)	to the accredited municipality for any permit issued by the safety codes officer and for any material or service that is provided by the safety codes officer,
(ii)	to the owner of a premises or place for any material or services provided by the safety codes officer, and
(iii)	to the recipient of any permit issued by the safety codes officer;
(c) by as	order, cancel or suspend the municipality's designation an accredited municipality.
( <b>4</b> ) An or Gazette.	der under this section shall be published in The Alberta
(5) The N	Ainister may delegate any or all of the Minister's powers

SAFETY CODES ACT

under this section to the Council, and if the Council refuses to designate a municipality as an accredited municipality or cancels or suspends the designation of an accredited municipality, the municipality may appeal the refusal, cancellation or suspension to the Minister.

1991 cS-0.5 s23

**RSA 2000** 

Chapter S-1

#### Accredited regional services commission

Section 27

**27(1)** On the application of a regional services commission established under the *Municipal Government Act*, the Minister may, by order, designate a regional services commission as an accredited regional services commission authorized to administer all or part of this Act with respect to any or all things, processes or activities to which this Act applies within the boundaries of its members.

(2) The Minister may include terms and conditions in an order under this section.

(3) If the Minister, on reasonable and probable grounds, is of the opinion that an accredited regional services commission does not comply with the requirements of this Act or with the terms and conditions of its designation, or that any thing, process or activity to be administered by the accredited regional services commission may constitute a serious danger to persons or property, the Minister may

(a) request the board of directors of the accredited regional services commission to take the action necessary to correct the situation;

Section 28		SAFETY CODES ACT	Chapter S-1
	(b) din un acu in	ect a safety codes officer appointed under dertake the administration of this Act on credited regional services commission and the amount provided for by the regulation	er section 33(1) to behalf of that id to charge fees, ins,
	(i)	to the accredited regional services comm permit issued by the safety codes office material or service that is provided by the officer,	nission for any r and for any he safety codes
	(ii)	to the owner of a premises or place for a services provided by the safety codes of	any material or fficer, and
	(iii)	to the recipient of any permit issued by officer;	the safety codes
	(c) by co co	order, cancel or suspend the regional ser mmission's designation as an accredited mmission.	rvices regional services
	(4) An or Gazette.	der under this section must be published	in The Alberta
(5) The Minister may delegate any or all of t under this section to the Council, and if the C designate a regional services commission as services commission or cancels or suspends t accredited regional services commission, the commission may appeal the refusal, cancella		Ainister may delegate any or all of the M section to the Council, and if the Counc a regional services commission as an accommission or cancels or suspends the de d regional services commission, the region on may appeal the refusal, cancellation of	inister's powers il refuses to credited regional esignation of an onal services or suspension to
	the Minis	ter.	1999 c26 s23
4	ccredited	corporations	
	<b>28(1)</b> Or by order, administe processes or are und	the application of a corporation an Adm designate it as an accredited corporation r all or part of this Act with respect to an or activities to which this Act applies the ler the care and control of the corporation	ninistrator may, authorized to ny or all things, at are owned by n.
	(2) If an accredited of the ref	Administrator refuses to designate a corr l corporation, the Administrator shall ser usal on the corporation.	poration as an ve written notice
	(3) An A specify lo	dministrator may include terms and conc cations and facilities in an order under th	litions and nis section.

RSA 2000

(4) If an Administrator, on reasonable and probable grounds, is of the opinion that an accredited corporation does not comply with the requirements of this Act or with the terms and conditions of its Section 29

designation, the Administrator may, by order, suspend or cancel the designation as an accredited corporation and shall serve the corporation with a written notice of the suspension or cancellation.

(5) A corporation may appeal to the Council in accordance with the Council's bylaws

- (a) a refusal of designation as an accredited corporation, and
- (b) a suspension or cancellation of a designation as an accredited corporation.

(6) An order under this section shall be published in The Alberta Gazette.

1991 cS-0.5 s24

#### Accreditation overlap

**29(1)** If an accredited municipality, an accredited regional services commission and an accredited corporation are authorized to administer the same part of this Act with respect to the same thing, process or activity at the same location, the Minister may direct whether the accredited municipality, the accredited regional services commission or the accredited corporation may administer this Act with respect to that thing, process or activity.

(2) If the Minister considers it expedient and in the public interest, the Minister may delegate the Minister's powers under this section to another individual.

(3) The Land and Property Rights Tribunal established under the *Land and Property Rights Tribunal Act* shall, at the request of the Minister, provide recommendations regarding a question or matter relating to an accreditation overlap referred to in subsection (1). RSA 2000 cs-1 s29;2015 c10 s11;2020 cL-2.3 s39

# Accredited agencies

**30(1)** On the application of a person, an Administrator may, by order, designate the person as an accredited agency authorized to provide services pursuant to all or part of this Act with respect to any or all things, processes or activities to which this Act applies.

(2) If an Administrator refuses to designate a person as an accredited agency, the Administrator shall serve the person with a written notice of the refusal.

(3) An Administrator may include terms and conditions in an order under this section.

(4) An accredited agency may enter into an agreement with the Minister, the Council, an accredited municipality, an accredited

corporation or another person approved by the Minister to provide services under this Act that the agency is authorized to provide.

(5) If an Administrator, on reasonable and probable grounds, is of the opinion that an accredited agency does not comply with the requirements of this or any other Act or with the terms and conditions of its designation, the Administrator may, by order, suspend or cancel the designation as an accredited agency and shall serve the agency with a written notice of the suspension or cancellation.

(6) A person may appeal to the Council in accordance with the Council's bylaws

- (a) a refusal of designation as an accredited agency, and
- (b) a suspension or cancellation of a designation as an accredited agency.

(7) An order under this section shall be published in The Alberta Gazette.

RSA 2000 cS-1 s30;2015 c10 s12

# Alberta Safety Codes Authority

#### Establishment and powers of Authority

**30.1(1)** On the order of the Minister, the Council shall establish a division of the Council to be known as the "Alberta Safety Codes Authority" to oversee the provision of services pursuant to all or part of this Act identified by the order in areas to be administered by the Crown.

(2) The membership, powers and duties of the Authority shall be established in accordance with the order referred to in subsection (1).

(3) The Authority may enter into contracts on behalf of the Council that the Authority considers appropriate for the exercise of its powers and performance of its duties under this Act.

(4) The Authority may appear as an applicant or respondent in legal proceedings concerning the services that it provides or oversees pursuant to this section.

(5) The *Regulations Act* applies to an order made under this section.

2015 c10 s13

#### Safety Codes Officers

## Designation

**31(1)** On receipt of an application, an Administrator may

- (a) designate a person who holds an appropriate certificate of competency and meets the requirements of the regulations as a safety codes officer with respect to all or part of this Act, and
- (b) designate the powers that a safety codes officer referred to in section 33(2) to (6) may exercise.

(2) If an Administrator refuses to designate a person as a safety codes officer, the Administrator shall serve the person with a written notice of the refusal.

(3) If an Administrator, on reasonable and probable grounds, is of the opinion that a safety codes officer contravenes this Act or the terms of the person's designation as a safety codes officer, the Administrator may suspend or cancel the designation and shall serve the safety codes officer with a written notice of the suspension or cancellation.

(4) A safety codes officer may appeal to the Council a refusal of designation and a suspension or cancellation of a designation as a safety codes officer in accordance with the Council's bylaws. RSA 2000 cS-1 s31;2015 c10 s14

#### Officer's powers and duties

**32** A safety codes officer designated in accordance with section 31(1)(a) may exercise the powers and perform the duties of a safety codes officer only in accordance with

- (a) a designation of powers under section 31(1)(b) and the safety codes officer's terms of employment, or
- (b) an appointment referred to in section 33(1) and the safety codes officer's terms of employment.

RSA 2000 cS-1 s32;2015 c10 s15

## Employment

**33(1)** The Minister may, in accordance with the *Public Service Act*, appoint safety codes officers for the administration of all or part of this Act anywhere in Alberta and shall prescribe the powers and duties of the safety codes officers.

(2) A local authority shall provide for safety codes officers for the purpose of administering all or part of this Act that an accredited municipality is authorized to administer.

(3) An accredited regional services commission shall provide for safety codes officers for the purpose of administering all or part of this Act that it is authorized to administer.

(4) An accredited corporation shall provide for safety codes officers for the purpose of administering all or part of this Act that it is authorized to administer.

(5) An accredited agency shall provide for safety codes officers for the purpose of providing services under this Act that it is authorized to provide.

(6) The Authority shall provide for safety codes officers for the purpose of providing services under this Act that it provides or oversees pursuant to section 30.1.

RSA 2000 cS-1 s33;2015 c10 s16

#### Inspections

**34(1)** For the purpose of ensuring that this Act and any thing issued under this Act are complied with, a safety codes officer may, without a warrant, at any reasonable time, enter any premises or place, except a private dwelling place that is in use as a dwelling, in which the officer has reason to believe there is something to which this Act applies and may, using reasonable care, carry out an inspection, review designs and examine and evaluate quality management systems and manufacturing and construction processes.

(2) For the purpose of ensuring that this Act and any thing issued under this Act are complied with, a safety codes officer may, at any reasonable time and on reasonable notice, enter a private dwelling place that is in use as a dwelling in which the officer has reason to believe there is something to which this Act applies and, using reasonable care, may carry out an inspection and review designs

(a) with the consent of the owner or occupant, or

(b) with a warrant from a justice.

(3) On entering a premises or place, a safety codes officer shall, on request, produce identification in accordance with the regulations and provide advice on the powers to carry out inspections, review designs and examine and evaluate quality management systems and manufacturing and construction processes.

(4) In carrying out an inspection, review, examination or evaluation under this Act, a safety codes officer may

Section 34		SAFETY CODES ACT	RSA 2000 Chapter S-1
	(a)	be accompanied by a police officer, a peace other person or with any thing that the safet considers appropriate,	officer or any y codes officer
	(b)	inspect, review, examine and evaluate any t activity to which this Act applies and photo otherwise record any thing, process or activ safety codes officer considers would be of a	hing, process or graph or ity that the assistance,
	(c)	require any person on the premises or at the interviewed and to make full disclosure eith writing about any matter concerning any the activity to which this Act applies,	place to be ner orally or in ing, process or
	(d)	if necessary for safety reasons and on provi practical, temporarily close or disconnect, or temporary closure or disconnection of, any activity to which this Act applies for the put the inspection, review, examination or evaluation	ding notice when or require thing, process or rpose of making uation, and
	(e)	review, perform or require to be performed evaluations the safety codes officer conside any thing, process or activity to which this a remove any thing, if necessary, for the purp tests or evaluations performed.	any tests and rs necessary on Act applies and lose of having
	(5) T ensure that	he owner or occupier of premises or a place of during an inspection, review, examination	or thing shall or evaluation,
	(a)	on the request of a safety codes officer, then attendance who is capable of taking all the precautions and providing reasonable assist the safety of the safety codes officer, and	re is a person in necessary ance to ensure
	(b)	any necessary safety equipment, including l that requested by a safety codes officer, is in available for the officer's use.	but not limited to mmediately
	(6) A any th exami it unle	safety codes officer who has reviewed, detaining shall, on completion of the inspection, reination or evaluation, return the thing to the pess it is impossible, unsafe or impractical to r	ined or removed eview, person entitled to eturn that thing.
	( <b>7</b> ) O evalua	n completion of an inspection, review, exam ation, the safety codes officer may provide, to	ination or the owner,

(7) On completion of an inspection, review, examination of evaluation, the safety codes officer may provide, to the owner, occupier, vendor, contractor, manufacturer or designer, advice or a report on the thing, process or activity that was inspected, reviewed, examined or evaluated. (8) Notwithstanding subsection (6), a safety codes officer may,

- (a) on obtaining a warrant, or
- (b) without a warrant if the safety codes officer believes on reasonable and probable grounds that it is not practical to obtain a warrant because the necessary delay may result in the loss of evidence,

detain or remove for the purposes of evidence any thing that the officer discovers during an inspection, review, examination or evaluation that the officer believes on reasonable and probable grounds may provide evidence of the commission of an offence under this Act.

RSA 2000 cS-1 s34;2015 c10 s17

#### Production of documents

**35(1)** For the purpose of ensuring that this Act and any thing issued under this Act are complied with, a safety codes officer may demand the production, within a reasonable time, of any record or document pertaining in any manner to compliance with this Act and may on giving a receipt for it remove it for not more than 48 hours for the purpose of making copies of it.

(2) If a person on whom a demand is made under subsection (1) refuses or fails to comply, the safety codes officer may apply to a judge of the Court of Queen's Bench and the judge may make any order that the judge considers necessary to enforce compliance with subsection (1).

(3) A copy of the application and a copy of each affidavit in support shall be served not less than 3 days before the day named in the application for the hearing.

RSA 2000 cS-1 s35;2009 c53 s167

#### Incriminating disclosures

**36** A person who makes a disclosure under section 34(4)(c) has the right not to have any incriminating disclosure so given used to incriminate the person in a prosecution under this Act except in a prosecution under section 67(2).

1991 cS-0.5 s32

#### Officer hindered

**37(1)** If a person refuses to allow a safety codes officer to exercise that officer's powers under this Act or interferes or attempts to interfere with a safety codes officer in the exercise of that officer's powers under this Act, an Administrator, an accredited municipality, an accredited regional services commission, the

Authority or the Council may apply to the Court of Queen's Bench for an order

- (a) restraining that person from preventing or in any manner interfering with a safety codes officer in the exercise of that officer's powers under this Act, and
- (b) for the purposes of providing protection, authorizing a police officer to accompany the safety codes officer on an inspection, review, examination or evaluation under this Act.

(2) A copy of the application and a copy of each affidavit in support shall be served not less than 3 days before the day named in the application for the hearing.

RSA 2000 cS-1 s37;2009 c53 s167;2015 c10 s18

# Part 3 Standards

#### Variances

**38(1)** An Administrator or a safety codes officer may issue a written variance with respect to any thing, process or activity to which this Act applies if the Administrator or officer is of the opinion that the variance provides approximately equivalent or greater safety performance with respect to persons and property as that provided for by this Act.

(2) An Administrator or a safety codes officer may include terms and conditions in the variance.

(3) A safety codes officer on issuing a variance shall notify an Administrator.

(4) The *Regulations Act* does not apply to variances issued under this section.

1991 cS-0.5 s34

# Quality management system

**39(1)** An owner, occupier, vendor, contractor, manufacturer or designer of a thing, or a person who authorizes, undertakes or supervises a process or activity, to which this Act applies may be required by a written order of an Administrator or by this Act to have and maintain a quality management system that meets the requirements of the regulations.

(2) No person shall make a change to a quality management system without first notifying an Administrator of the change if it is a type of change of which an Administrator requires notification.

Section 38

(3) A person who has or maintains a quality management system shall, on the request of an Administrator or a safety codes officer, make available a copy of a written description of the quality management system and submit reports respecting the quality management system.

1991 cS-0.5 s35

#### **Design registration**

**40(1)** An Administrator or safety codes officer may register the design of any thing, process or activity that is required by this Act to be registered if the submitted design meets the requirements of this Act.

(2) If this Act requires that the design of any thing, process or activity be registered, no person shall construct or manufacture the thing or undertake or operate the process or activity unless the design is registered.

(3) If an application to have a design registered is refused

- (a) by an Administrator, the Administrator shall serve the applicant with a written notice of the refusal, or
- (b) by a safety codes officer, the safety codes officer shall serve the applicant with a written notice of the refusal.

(4) If an Administrator is of the opinion that a registered design does not meet the requirements of this Act or is unsafe, the Administrator may deregister the design and shall as soon as practicable notify the person who submitted the design for registration.

(5) If a person's application to have a design registered is refused or if a person's registered design is deregistered, the person may appeal the refusal or deregistration to the Council in accordance with the Council's bylaws.

RSA 2000 cS-1 s40;2014 c18 s3

#### **Certificate required**

**41(1)** No person shall, without a certificate of competency, control or operate any thing to which this Act applies or supervise, operate or undertake any process or activity to which this Act applies if this Act requires that the person hold a certificate of competency to do so.

(2) No person shall employ or authorize a person who does not hold a certificate of competency to control or operate any thing or to supervise, operate or undertake a process or activity if this Act requires that an employed or authorized person hold a certificate of competency.

1991 cS-0.5 s37

## **Certificate issues**

**42(1)** On receipt of an application, an Administrator may issue a certificate of competency to a person who complies with the requirements of this Act.

(2) A certificate of competency is valid for the length of time specified in it unless it is cancelled or suspended earlier.

(3) An Administrator may suspend or cancel a certificate of competency if the Administrator, on reasonable and probable grounds, is of the opinion that

- (a) the person no longer complies with the requirements of this Act for a certificate of competency, or
- (b) the person does not comply with this Act when acting pursuant to the certificate of competency.

(4) The Administrator shall serve written notice of a refusal to issue a certificate of competency or of the suspension or cancellation of a certificate of competency on the applicant for or the holder of the certificate of competency.

(5) A person who is refused a certificate of competency or whose certificate of competency is suspended or cancelled may appeal the refusal, suspension or cancellation to the Council in accordance with the Council's bylaws.

1991 cS-0.5 s38

## **Permits required**

**43(1)** If this Act requires a person to have a permit to sell, construct, control or operate any thing or supervise, operate or undertake any process or activity, no person shall do so unless the person has the appropriate permit.

(2) If any thing to which this Act applies is approved by the regulations for a certain use or purpose, no person shall use that thing for any other use or purpose unless a safety codes officer issues a permit for that other use or purpose or it is an innocuous use or purpose.

(3) If the regulations require that any thing be approved before it is installed or operated, no person shall install or operate that thing unless a safety codes officer issues a permit for it.

RSA 2000 Chapter S-1

(4) A permit under this Act does not authorize a person to do any thing, implement any process or engage in any activity that does not comply with any other enactment.

1991 cS-0.5 s39

#### Permit issues

**44(1)** On receipt of an application, a safety codes officer or other person designated by an Administrator may issue a permit to a person who complies with the requirements of this Act or issue a permit with respect to a thing, process or activity if it complies with the requirements of this Act.

(2) A safety codes officer or other person designated by an Administrator may include terms and conditions in a permit.

(3) If a safety codes officer or other person designated by an Administrator refuses to issue a permit, the safety codes officer or other person designated by an Administrator shall serve the applicant with a written notice of the refusal.

(4) A person who acts pursuant to a permit shall do so in accordance with this Act and shall comply with this Act and any terms or conditions contained in the permit.

(5) A person who is refused a permit may appeal the refusal to the Council in accordance with the Council's bylaws.

1991 cS-0.5 s40;1994 c23 s42

## Stamps, seals

**45(1)** If the regulations require the design of any thing, process or activity to which this Act applies to be submitted for review or to be registered and

- (a) to have a stamp or seal affixed to it and to be signed pursuant to the *Architects Act*, or
- (b) to have a seal affixed to it and to be signed pursuant to the *Engineering and Geoscience Professions Act*,

no permit may be issued with respect to the design unless the design is submitted for review or registered and is signed, stamped and sealed in accordance with the regulations.

(2) Despite subsection (1), a permit may be issued on or before April 1, 2016 with respect to a design submitted on or before April 1, 2016 that does not bear the signatures referred to in subsection (1).

RSA 2000 cS-1 s45;2011 c3 s33;2015 c10 s20
# Permit suspended, etc.

**46(1)** A safety codes officer may suspend or cancel a permit if the safety codes officer, on reasonable and probable grounds, is of the opinion that the permit holder does not comply with this Act when acting pursuant to the permit or that the thing, process or activity does not comply with this Act.

(2) The safety codes officer shall serve written notice of the suspension or cancellation on the permit holder and shall also notify an Administrator.

(3) A person whose permit is suspended or cancelled may appeal the suspension or cancellation to the Council in accordance with the Council's bylaws.

1991 cS-0.5 s42

# Part 4 Unusual Situations

#### Emergency

**47(1)** If a safety codes officer is, on reasonable and probable grounds, of the opinion that there is an imminent serious danger to persons or property because of any thing, process or activity to which this Act applies or because of a fire hazard or risk of an explosion, the officer may take any action that the officer considers necessary to remove or reduce the danger.

(2) An action taken under subsection (1) may include ordering the evacuation of persons from the affected premises and disconnecting or requiring the disconnection of an electrical, gas, sewage or plumbing system.

(3) A safety codes officer may request the assistance of a police officer, a peace officer or any other person as the safety codes officer considers appropriate when taking an action under subsection (1).

(4) If an action is taken under subsection (1) in respect of land that is not Metis patented land, the local authority may place an amount equal to the expense incurred in carrying out the action on the tax roll as an additional tax against the land concerned, and that amount

- (a) forms a lien on the land in favour of the local authority,
- (b) is, for all purposes, deemed to be a tax imposed and assessed on the land and in arrears under the *Municipal Government Act* from the date the amount was placed on the tax roll, and

(c) the *Municipal Government Act* applies for the purposes of the enforcement, collection and recovery of that amount.

(5) If an action is taken under subsection (1) by a safety codes officer appointed under section 33(1) or (6), or in respect of a subject-matter that is not under the administration of an accredited municipality or an accredited regional services commission, an amount equal to the expense incurred in carrying out the investigation is a debt due to the Crown jointly and severally by the owners of the land concerned, but those persons may only include

- (a) the owners of the land concerned as registered under the *Land Titles Act*, or
- (b) in the case of Metis patented land, the persons registered in the Metis Settlements Land Registry as owners of the Metis title, provisional Metis title or an allotment in the land.

(6) Nothing in this section precludes the owners of the land concerned from seeking indemnity from a third party for the removal or reduction of a danger or any expense incurred in carrying out an investigation.

RSA 2000 cS-1 s47;2015 c10 s21

#### Investigation

**48(1)** A safety codes officer may investigate an unsafe condition, accident or fire to determine its cause and circumstances and make recommendations related to safety.

(2) For the purposes of investigating an unsafe condition, accident or fire, a safety codes officer may whenever necessary

- (a) exercise any of the powers of a safety codes officer under sections 34, 35 and 48.1, and
- (b) for 48 hours or any extended period of time authorized by a justice, close all or part of the affected premises and prohibit any person from entering or remaining on the closed premises except a police officer or a person who enters to prevent injury or death or to preserve property if, in the opinion of the safety codes officer, there are dangerous or emergency circumstances and the action is necessary for safety reasons or to preserve evidence.

(3) A safety codes officer shall, as soon as possible after the completion of the investigation, return to the person entitled to it any thing removed during the investigation unless it is impossible, unsafe or impractical to return that thing.

(4) A safety codes officer who conducts an investigation shall provide a report to an Administrator.

RSA 2000 cS-1 s48;2015 c10 s22

#### **Tele-warrants**

48.1(1) In carrying out an investigation under section 48, if

- (a) a safety codes officer has reasonable grounds to believe that there is in a place anything that will afford evidence as to the investigation,
- (b) a person refuses to allow a safety codes officer to exercise that officer's powers under this Act or interferes or attempts to interfere with a safety codes officer in the exercise of that officer's powers under this Act, and
- (c) it would be impracticable to appear personally before a justice to make an application for a search warrant,

the safety codes officer may submit an information on oath to a justice by telephone or other means of telecommunication.

(2) An information submitted by telephone or other means of telecommunication must be recorded verbatim by the justice, who must, as soon as practicable, cause to be filed with the clerk of The Provincial Court of Alberta nearest to the area in which the tele-warrant is intended for execution, the record or a transcription of the record certified by the justice as to time, date and contents.

(3) For the purposes of subsection (2), an oath may be administered by telephone or other means of telecommunication.

(4) An information on oath submitted by telephone or other means of telecommunication must include

- (a) a statement of the circumstances that make it impracticable for the safety codes officer to appear personally before a justice,
- (b) a statement of the place to be searched and the things alleged to be liable to seizure in respect of the investigation,
- (c) a statement of the safety codes officer's grounds for believing that things liable to seizure in respect of the investigation will be found in the place to be searched, and
- (d) a statement as to any prior application under this section or any other warrant or order issued or applied for in respect of the same matter of which the safety codes officer has knowledge.

(5) A justice who is satisfied that an information on oath submitted by telephone or other means of telecommunication

- (a) is in respect of an investigation under this Act and conforms to the requirements of subsection (4),
- (b) discloses reasonable grounds for dispensing with an information presented personally and in writing, and
- (c) discloses reasonable grounds for the issuance of a search warrant in respect of the investigation,

may issue a tele-warrant to a safety codes officer and may require that the tele-warrant be executed within any time period that the justice may order.

(6) A tele-warrant issued under this section may confer the same authority as may be conferred by a warrant issued by a justice before whom the safety codes officer appears personally.

(7) If a justice issues a tele-warrant under subsection (5),

- (a) the justice must complete and sign the tele-warrant in the form prescribed in the regulations, noting on its face the date, time and place of issuance,
- (b) the safety codes officer, on the direction of the justice, must complete, in duplicate, a facsimile of the tele-warrant in the form prescribed in the regulations, noting on its face the name of the issuing justice and the date, time and place of issuance, and
- (c) the justice must, as soon as practicable after the tele-warrant has been issued, cause the tele-warrant to be filed with the clerk of The Provincial Court of Alberta nearest to the area in which the tele-warrant is intended for execution.

(8) A safety codes officer who executes a tele-warrant issued under subsection (5) must, before entering the place to be investigated, or as soon as is practicable afterwards, give a facsimile of the tele-warrant to any person present and ostensibly in control of the place.

(9) A safety codes officer who, in any unoccupied place, executes a tele-warrant issued under subsection (5) must, on entering the place or as soon as is practicable afterwards, cause a facsimile of the tele-warrant to be suitably affixed in a prominent location within the place. Section 48.1

(10) A safety codes officer to whom a tele-warrant is issued under subsection (5) must file a written report with the clerk of The Provincial Court of Alberta nearest to the area in which the tele-warrant was executed as soon as is practicable but not more than 7 days after the tele-warrant was executed, which report must include

- (a) a statement of the time and date the tele-warrant was executed, or if the tele-warrant was not executed, a statement of the reasons why it was not executed,
- (b) a statement of the things, if any, that were seized pursuant to the tele-warrant and the location where they are being held, and
- (c) a statement of the information, data, records, reports, documents and things, if any, that were seized in addition to the things mentioned in the tele-warrant and the location where they are being held, together with a statement of the safety codes officer's grounds for believing that those additional things provide evidence relevant to the unsafe condition, accident or fire under investigation.

(11) The clerk of The Provincial Court of Alberta with whom a written report is filed pursuant to subsection (10) must, as soon as is practicable, cause the report, together with the information on oath and a copy of the tele-warrant to which it pertains, to be brought before a justice to be dealt with in respect of anything that was seized and is referred to in the report, in the same manner as if the things were seized pursuant to a search warrant issued by a justice on an information presented personally by a safety codes officer.

(12) In any proceeding in which it is material for a court to be satisfied that a search or seizure was authorized by a tele-warrant issued under subsection (5), the absence of a copy of the information on oath, transcribed and certified by the justice as to the time, date and contents, or a copy of the tele-warrant, signed by the justice and carrying on its face a notation of the time, date and place of issuance, is, in the absence of evidence to the contrary, proof that the search or seizure was not authorized by a tele-warrant issued under subsection (5).

2015 c10 s23

# Part 5 Orders, Appeals

#### Order

**49(1)** A safety codes officer may issue an order if the safety codes officer believes, on reasonable and probable grounds, that

- (a) this Act is contravened, or
- (b) the design, construction, manufacture, operation, maintenance, use or relocation of a thing or the condition of a thing, process or activity to which this Act applies is such that there is danger of serious injury or damage to a person or property.

(2) An order may be issued to a person who provides services that are the subject-matter of the order or to the owner, occupier, vendor, contractor, manufacturer or designer of the thing or to the person who authorizes, undertakes or supervises the process or activity that is the subject-matter of the order, or may be issued to any 2 or more of them.

- (3) An order
  - (a) shall set out what a person is required to do or to stop doing in respect of the thing, process or activity and a reasonable time within which it must be done or stopped;
  - (b) may direct a method of work, construction, manufacturing, operation, maintenance, use or relocation that must be followed;
  - (c) may direct that the use of the thing, process or activity be stopped in whole or in part in accordance with the order;
  - (d) may direct that a design be altered;
  - (e) may direct that an altered design be submitted to an Administrator for review or for registration;
  - (f) may direct compliance with this Act, a permit, a certificate or a variance;
  - (g) shall meet the requirements of the regulations on format and contents.

(4) On issuing an order, the safety codes officer shall serve a copy on the person to whom it is issued in accordance with the regulations and send a copy of it to an Administrator in a form and within the time satisfactory to the Administrator.

(5) A person who is served with an order under subsection (4) may, within 14 days after being served, submit a written request to the Administrator for a review of the order.

(6) If an Administrator receives a request, in accordance with subsection (5), from a person on whom an order is served and if the Administrator considers that the order

- (a) is improper, impractical or unreasonable,
- (b) contains incorrect references or typographical errors, or
- (c) does not correct or satisfy concerns about safety,

the Administrator may, by order, revoke or vary the original order within 21 days from when the original order was served.

(7) If an Administrator issues an order under subsection (6), the Administrator shall serve it, in accordance with the regulations, on all the persons on whom the original order was served and on the safety codes officer who issued the original order.

1991 cS-0.5 s45;1999 c26 s23

#### Appeal of orders

**50(1)** A person to whom an order is issued may, if the person objects to the contents of the order, appeal the order to the Council in accordance with the Council's bylaws within 35 days after the date the order was served on the person.

(2) The Council, on receipt of a notice of appeal in the form approved by the Council, shall

- (a) send a copy of the notice of appeal to
  - (i) the relevant Administrator,
  - (ii) the safety codes officer who issued the order being appealed, and
  - (iii) an accredited municipality, accredited regional services commission or the Authority, as the case may be, if the subject-matter of the order is administered by the accredited municipality, accredited regional services commission or the Authority,

and

(b) notify the persons listed in clause (a) and the appellant of the time and place of the appeal.

(3) An appeal may proceed under this section regardless of whether a request was made in accordance with section 49(5). RSA 2000 cS-1 s50;AR 49/2002 s8; 2002 c30 s28;2015 c10 s24

#### Appeal of refusals, suspensions, cancellations

- 51(1) The Council, on receipt of a notice of appeal with respect to
  - (a) a refusal to designate a corporation as an accredited corporation or a person as an accredited agency,
  - (b) a refusal to register a design or a deregistration of a design, or
  - (c) a suspension or cancellation of a designation of accreditation, a certificate of competency or a permit,

shall send a copy of the notice of appeal to the relevant Administrator and the safety codes officer, if any, who issued the suspension or cancellation, and notify them and the appellant of the time and place of the appeal.

(2) In order for an appeal to proceed, the Council must receive a notice of appeal within 30 days after the date the corporation or person was served with the written notice of the refusal to designate, refusal to register, deregistration, suspension or cancellation.

1991 cS-0.5 s47

RSA 2000

Chapter S-1

#### Council considers appeal

52(1) When the Council is considering an appeal,

- (a) it may, at the direction of the chair of the Board of Directors or in accordance with the Council's bylaws, sit in one or more divisions, and the divisions may sit simultaneously or at different times;
- (b) 3 members constitute a quorum of a division of the Council;
- (c) an order of a division is an order of the Council and binds all members of the Council;
- (d) evidence may be given before the Council in any manner the Council considers appropriate and the Council is not bound by the rules of law respecting evidence applicable to judicial proceedings.

(2) The Council may by order

- (a) confirm, revoke or vary an order, suspension or cancellation appealed to it and as a term of its order may issue a written variance with respect to any thing, process or activity related to the subject-matter of the order if in its opinion the variance provides approximately equivalent or greater safety performance with respect to persons and property as that provided for by this Act,
- (b) confirm a refusal or direct that a designation, certificate or permit be issued and direct the inclusion of terms and conditions in the designation, certificate or permit,
- (b.1) confirm the refusal by a safety codes officer to issue a written variance or revoke the refusal by a safety codes officer to issue a written variance and issue a written variance on the terms and conditions that the Council considers appropriate, or
  - (c) confirm a deregistration of a design, confirm a refusal to register a design or direct that a design be submitted for review or be registered and that changes be made to the design before it is submitted for review or is registered.

(3) The Council may include terms and conditions in a variance and shall, on issuing a variance, notify an Administrator.

(4) The *Regulations Act* does not apply to a variance issued under this section.

(5) The Council shall serve a copy of its order on the appellant and the Administrator and on the accredited municipality, the accredited regional services commission, the Authority and the safety codes officer if they were sent a copy of the notice of appeal. RSA 2000 cS-1 s52;2015 c10 s26

#### Appeal to Court

**53(1)** An appeal lies from an order of the Council to the Court of Queen's Bench only on a question of law or jurisdiction.

(2) An appeal under this section may be commenced within 30 days after receipt of service of the Council's decision

- (a) by filing an application with the clerk of the Court, and
- (b) by serving a copy of the application
  - (i) on the Council and on the respondent, if the appellant is the person to whom the order under appeal is directed, or

 (ii) on the Council and on the person to whom the order under appeal is directed, if the appellant is an Administrator, an accredited municipality, an accredited regional services commission or the Authority.

(3) The Court may, on application either before or after the time referred to in subsection (2), extend that time if it considers it appropriate to do so.

(4) The Court may, in respect of an appeal under subsection (2),

- (a) determine the issues to be resolved on the appeal, and
- (b) limit the evidence to be submitted by the Council to a copy of the Council's decision certified by the person who was the chair when the appeal was heard and those materials necessary for the disposition of those issues.

(5) On hearing the appeal, the Court may confirm, revoke or vary the order of the Council.

RSA 2000 cS-1 s53;2009 c53 s167;2015 c10 s27

#### Stay pending appeal

**54(1)** An appeal taken under section 50 or 51 does not operate as a stay of the order, suspension or cancellation appealed from unless a person who may chair the Council, on receipt of a written application, so directs.

(2) An appeal taken under section 53 does not operate as a stay of the order of the Council unless a judge of the Court of Queen's Bench so directs.

(3) A stay directed under this section may include terms and conditions and shall be in writing.

1991 cS-0.5 s50

# Enforcement of order

**55(1)** An Administrator or a safety codes officer appointed under section 33(1) or referred to in section 33(2) or (3), together with a police officer, a peace officer or any other person as the safety codes officer considers appropriate, may enter, at any reasonable time, any premises or place for the purpose of carrying out an order unless the owner refuses to allow or interferes with the entry or the carrying out of an order

(a) if a person to whom the order is issued under section 49, 52 or 53 with respect to any thing, process or activity under the administration of an accredited municipality or accredited regional services commission does not commence an appeal of the order within the time set out for the commencement of the appeal and the order is not carried out within the time set out in the order, and

(b) if the owner of the land concerned as registered under the *Land Titles Act* or, in the case of Metis patented land, the settlement member registered in the Metis Settlements Land Registry as owner of the Metis title, provisional Metis title or an allotment in the land has been given written notice of the intention of the accredited municipality, the accredited regional services commission or the Authority to carry out the order.

(2) When an order is carried out under subsection (1) in respect of land that is not Metis patented land, the local authority may place the amount of the expenses incurred in carrying out the order on the tax roll as an additional tax against the land concerned, and that amount

- (a) forms a lien on the land in favour of the municipality, and
- (b) is, for all purposes, deemed to be taxes imposed and assessed on the land and in arrears under the *Municipal Government Act* from the date the amount was placed on the tax roll, and that Act applies to the enforcement, collection and recovery of the amount.

(3) When an order is carried out under subsection (1) in respect of Metis patented land, the settlement council may place the amount of the expenses incurred in carrying out the order on the tax roll as an additional tax against the land concerned, and that amount is, for all purposes, deemed to be taxes imposed and assessed on the land and in arrears under the *Metis Settlements Act* from the date the amount was placed on the tax roll, and that Act applies to the enforcement, collection and recovery of the amount.

(4) In addition to the power granted under subsection (3), when an order is carried out under subsection (1) in respect of Metis patented land, the settlement council may record a notification of the amount of the expenses incurred in carrying out the order in the Metis Settlements Land Registry against the Metis title, provisional Metis title or an allotment in the land, and

- (a) the expenses are a debt due to the Metis settlement by the settlement member who is registered as owner of the Metis title, provisional Metis title or allotment, and
- (b) no dealings in respect of the land by the settlement member may be recorded in the Registry without the consent of the

settlement council until the recording of the notification is cancelled.

(5) A Metis settlement may, in addition to the rights under this section, exercise any rights granted under a General Council Policy to collect the expenses incurred in carrying out an order under subsection (1) that are payable by a settlement member. RSA 2000 cS-1 s55;2015 c10 s28

#### Enforcement of order

**56(1)** An Administrator or a safety codes officer appointed under section 33(1) or referred to in section 33(6) and designated by the Administrator, together with a police officer, a peace officer or any other person as the safety codes officer considers appropriate, may enter, at any reasonable time, any premises or place for the purpose of carrying out an order unless the owner refuses to allow or interferes with the entry or the carrying out of an order

- (a) if a person to whom an order is issued under section 49, 52 or 53 with respect to a subject-matter that is not under the administration of an accredited municipality or an accredited regional services commission does not commence an appeal of the order within the time set out for the commencement of the appeal and the order is not carried out within the time set out in the order, and
- (b) if the owner of the land concerned as registered under the *Land Titles Act* or, in the case of Metis patented land, the person registered in the Metis Settlements Land Registry as owner of the Metis title, provisional Metis title or an allotment in the land and the persons named by the Minister under subsection (2) have been given written notice of the intention to carry out the order.

(2) When an order is carried out under subsection (1), the amount of the expenses incurred in carrying out the order is a debt due to the Crown jointly and severally by the persons named by the Minister prior to the carrying out of the order, but those persons may only include

- (a) the owner of the land concerned as registered under the *Land Titles Act*,
- (b) in the case of Metis patented land, the person registered in the Metis Settlements Land Registry as owner of the Metis title, provisional Metis title or an allotment in the land, and
- (c) the persons to whom the order was issued.

(3) The Minister may delegate any or all of the Minister's powers under this section to the Council.

RSA 2000 cS-1 s56;2015 c10 s29

#### Order of the Court

**57(1)** If a person refuses to allow an Administrator or a safety codes officer or a person lawfully accompanying either of them to carry out an order under section 55 or 56 or interferes with or attempts to interfere with the carrying out of that order, the Administrator, the accredited municipality, the accredited regional services commission or the Authority, as the case may be, may, whether or not that person has been prosecuted under section 67(1) or 67(4)(c) or (d), make an application to the Court of Queen's Bench for an order

- (a) requiring that person to comply with the order issued under this Act, or
- (b) restraining that person from interfering in any manner with the carrying out of an order in accordance with section 55 or 56.

(2) A copy of the application and each affidavit in support shall be served not less than 3 days before the day named in the application for the hearing or within any shorter time that the Court may direct. RSA 2000 cS-1 s57;2009 cS3 s167;2015 c10 s30

# Part 5.1 Administrative Penalties

#### Administrative penalties

**57.1(1)** An Administrator may impose an administrative penalty in accordance with this section and the regulations if the Administrator is of the opinion that a person has failed to comply with or contravened

- (a) section 5, 6, 7, 8, 9, 10(1), 11, 35, 39(2) or (3), 40, 41, 43, 44(4), 45(1), 59 or 67(1), (2) or (3),
- (b) an order made under this Act, or
- (c) a condition in a permit, certificate or variance issued under this Act.
- (2) An administrative penalty may be
  - (a) a single amount, or
  - (b) an amount for each day or part of a day on which the contravention or failure to comply continues.

(3) The total amount of an administrative penalty must not exceed(a) in the case of a penalty referred to in subsection (2)(b) the

- (a) in the case of a penalty referred to in subsection (2)(b), the maximum daily amount of \$10 000, and
- (b) the maximum cumulative amount of \$100 000.

(4) A notice of administrative penalty must be in writing and contain the following information:

- (a) the name of the person required to pay the administrative penalty;
- (b) the particulars of the contravention or failure to comply;
- (c) the amount of the administrative penalty and whether it is imposed as a single amount or as an amount applicable to each day that the contravention or failure to comply has continued or will continue;
- (d) the date on which the notice is issued;
- (e) the date by which the administrative penalty must be paid;
- (f) a statement that the person otherwise liable to pay the administrative penalty may, under section 57.3, appeal the imposition of or the amount of the administrative penalty, or both;
- (g) any other information required by the regulations.

(5) A notice of administrative penalty may be served within 3 years from the date on which the contravention or failure to comply is alleged to have occurred, but not afterward.

(6) A notice of administrative penalty must be served on the person alleged to have contravened or failed to comply.

(7) Except as otherwise provided in this Part, a person who has been served with a notice of administrative penalty shall pay the amount of the penalty on or before the date specified in the notice of administrative penalty, which must be at least 30 days after the day on which the notice of administrative penalty is served.

(8) A person who pays an administrative penalty in respect of a contravention or failure to comply shall not be charged with an offence under this Act in respect of the contravention or failure to comply described in the notice of administrative penalty. 2015 c10 s31;2020 c25 s16

#### Discretion to suspend, reduce or withdraw

**57.2** After imposing an administrative penalty under section 57.1, if the person served with a notice of administrative penalty has not submitted a notice of appeal and the Administrator is of the opinion that the person is taking reasonable measures to remedy the contravention or failure to comply, the Administrator may, in writing, as the Administrator considers appropriate, and in accordance with the regulations,

- (a) suspend, reduce or withdraw the administrative penalty, and
- (b) impose terms and conditions concerning a suspension.

2015 c10 s31

#### Appeal of administrative penalty

**57.3(1)** A person served with a notice of administrative penalty may appeal the imposition of or the amount of the administrative penalty, or both, by submitting a notice of appeal of administrative penalty in accordance with the regulations to the appeal body established or designated by the regulations.

(2) Subject to the regulations, the appeal body referred to in subsection (1) may make rules governing its own procedure and business.

(3) The *Regulations Act* does not apply to rules made under subsection (2).

(4) The appeal referred to in subsection (1) shall be dealt with in accordance with the regulations and the rules made under subsection (2).

(5) Any subsequent actions before a court following a notice of administrative penalty shall be dealt with in accordance with the regulations.

2015 c10 s31

#### Enforcement of administrative penalty

**57.4** Subject to the right to appeal, where a person fails to pay an administrative penalty in accordance with a notice of administrative penalty and any suspension or reduction of an administrative penalty referred to in section 57.2, the Administrator may file a copy of the notice of administrative penalty together with the written suspension or reduction of an administrative penalty, if any, with the clerk of the Court of Queen's Bench, and on being filed, they have the same force and effect and may be enforced as a judgment of the Court.

2015 c10 s31

# Part 6 Information

#### Information systems

**58** An Administrator or the Council may, in accordance with the regulations, maintain one or more information systems with respect to

- (a) the administration of and exercise of powers and performance of duties under this Act, and
- (b) any matter to which this Act applies. RSA 2000 cS-1 s58:2015 c10 s32

#### Accident notification

**59** If there is an unsafe condition, accident or fire that involves a thing, process or activity to which this Act applies, the owner or person designated in the regulations shall, if required by the regulations, forthwith report it to an Administrator, or to the accredited municipality, the accredited regional services commission or the Authority, as the case may be, if the thing, process or activity is under the administration of the accredited municipality, the accredited regional services commission or the Authority.

RSA 2000 cS-1 s59;2015 c10 s33

#### Information compilation

**60** If any information is required to be prepared, submitted or retained under this Act, the regulations and the terms and conditions of a permit may state the qualifications required to be held by the person who prepares, submits or retains it and may provide for how the information is to be prepared, submitted and retained.

1991 cS-0.5 s56

#### **Outstanding orders**

**61** If a person to whom an order is issued under this Act

- (a) does not commence an appeal of the order within the time set out in this Act for commencement of an appeal, and
- (b) does not carry out the order within the time set out in the order,

an Administrator may place an entry on the relevant information system that briefly indicates the subject-matter of the outstanding order, the name of the owner and the location of the thing, process or activity that is the subject-matter of the outstanding order. RSA 2000 cS-1 s61;2015 c10 s34

#### Variance register

**62** An Administrator may place an entry on the relevant information system that briefly indicates the subject-matter of a variance and the location of the thing, process or activity to which the variance applies.

RSA 2000 cS-1 s62;2015 c10 s35

#### **Release of information**

**63(1)** Any person employed or assisting in the administration of this Act shall preserve confidentiality with respect to personal information, as defined in the *Freedom of Information and Protection of Privacy Act*, that comes to the person's attention under this Act and shall not disclose or communicate that information except as follows:

- (a) an accredited municipality, an accredited regional services commission, an accredited agency and the Authority must, on request by a municipality, release information, including personal information, to the municipality with respect to the administration of this Act within the municipality;
- (b) a person may disclose personal information in accordance with the *Freedom of Information and Protection of Privacy Act.*

(2) An accredited municipality, an accredited regional services commission, an accredited corporation and an accredited agency must, on the request of the Council, release information to the Council with respect to any matter related to this Act.

(3) Subsection (2) does not authorize the release of personal information as defined in the *Freedom of Information and Protection of Privacy Act.* 

(4) Subject to the regulations, a person may request a search of a relevant information system for variances, orders and records related to the issuance of variances and orders, and the search request may be granted in accordance with the regulations and the *Freedom of Information and Protection of Privacy Act*.

RSA 2000 cS-1 s63;2015 c10 s36

# Part 7 General

#### Fees

**64(1)** The Government may charge fees, in accordance with an order of the Minister,

1		SAFETY CODES ACT	Chapter S-1				
	(a)	for anything issued or for any material, informat education program, publication or service provid Minister under this Act,	ion, led by the				
	(b)	for any research that is carried out by the Minist relates to any thing, process or activity to which applies, and	er that this Act				
	(c)	for the filing of a notice of appeal of an adminis penalty referred to in section $57.3(1)$ .	trative				
(2) The Minister may make orders respecting the payment of fees to witnesses and interpreters and for reporting fires. RSA 2000 cS-1 s64;2015 c10 s37							
Service							
<b>64.1</b> If a document is required to be served on a person under this Act, the service must be effected in accordance with the regulations							
	regula	alons.	2015 c10 s38				

# Regulations

65(1) The Lieutenant Governor in Council may make regulations

- (a) governing fire protection and the safe design, manufacture, construction, sale, installation, use, operation, occupancy and maintenance of
  - (i) buildings,
  - (ii) electrical systems,
  - (iii) elevating devices,
  - (iv) fire protection systems and equipment,
  - (v) gas systems,
  - (vi) plumbing systems,
  - (vii) pressure equipment, and
- (viii) private sewage disposal systems;
- (b) respecting the requirements for designs to be signed or have stamps or seals affixed by persons licensed or registered under the Architects Act or the Engineering and Geoscience Professions Act or any other enactment governing a profession or occupation;

- (c) respecting exclusions from the definitions of
  - (i) building,
  - (ii) electrical system,
  - (iii) gas,
  - (iv) gas system,
  - (v) plumbing system, and
  - (vi) private sewage disposal system,

for the purposes of this Act;

- (d) respecting the designation of any thing as an elevating device;
- (e) defining for the purposes of this Act
  - a passenger elevator, freight elevator, dumbwaiter, emergency elevator, escalator, inclined passenger lift, manlift, passenger ropeway, material lift, moving walk, personnel hoist, lift for persons with disabilities or amusement ride, and
  - (ii) boilers, pressure vessels, pressure piping systems and fittings, fired-heater pressure coils and thermal liquid heating systems;
- (e.1) governing barrier-free design and access;
- (e.2) defining for the purposes of this Act principles of barrier-free design and access;
  - (f) governing the qualifications and the evaluation of the qualifications of safety codes officers and applicants for and holders of permits and certificates of competency;
  - (g) designating things, processes or activities with respect to which a certificate of competency or permit is required and establishing the classifications of certificates of competency and permits;
  - (h) governing the issuance, display, making available, suspension, renewal and cancellation of permits and certificates of competency;

Section 65		SAFETY CODES ACT	Chapter S-1
<ul><li>(i) governing the provision of identification of sa officers and the use of the identification;</li></ul>		safety codes	
	(i.1) res	specting the investment of money for the petion 21(3);	purpose of
	(i.2) res res ov	specting the request of the Minister and re garding a question or matter relating to an erlap referred to in section 29(3);	commendations accreditation
	(i.3) res 57	specting the administrative penalties refer .1, including regulations	red to in section
	(i)	respecting notices of administrative pena and contents;	alty, their form
	(ii)	respecting the amount of an administration	ve penalty;
	(iii)	respecting any other matter the Lieutena Council considers necessary or advisable intent and purpose of the system of admi penalties;	nt Governor in e to carry out the inistrative
	(i.4) res ad	specting the suspension, reduction and win ministrative penalties under section 57.2;	thdrawal of
	(i.5) res ad	specting the form and contents of a notice ministrative penalty referred to in section	of appeal of 57.3(1);
<ul> <li>(i.6) designating a body as the appeal body for appeals from notices of administrative pen section 57.3(1) or respecting the establishr body for the hearing of appeals from notic administrative penalty referred to in sectio</li> <li>(i.7) respecting the conduct of appeals before th referred to in section 57.3, including</li> </ul>		the hearing of lty referred to in ent of an appeal s of 57.3(1);	
		specting the conduct of appeals before the ferred to in section 57.3, including	appeal body
	(i)	adjournments of matters before the appe	al body;
	(ii)	the attendance of witnesses before the ap	opeal body;
	(iii)	the applicability of the rules of evidence proceedings to hearings before the appea	in judicial 11 body;
	(iv)	the receiving and recording of evidence;	
	(v)	empowering the appeal body to proceed the appeal fails to appear at or attend a h	when a party to earing;

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Section 65		SAFETY CODES ACT	Chapter S-1
	(vi)	empowering the appeal body to require the any record, object or thing;	production of
	(vii)	the reconsideration of decisions made by th body;	e appeal
	(viii)	costs;	
	(i.8) re no 57	specting the subsequent actions before a council otice of administrative penalty referred to in s 7.3(5);	t following a ection
	(i.9) re se	specting the enforcement of administrative potentian 57.4;	enalties under
	(j) re	specting forms for the purposes of this Act;	
	(k) go in	overning the information systems referred to a cluding	in section 58,
	(i)	the information, including personal information included in an information system,	ation, to be
	(ii)	the release of information, including persor information, from an information system up 63, and	al nder section
	(iii)	the portion of the information in an information including personal information, that may be available to the public in response to a sear referred to in section 63(4);	ation system, e made ch request
	(k.1) go	overning	
	(i)	the content of a municipal bylaw referred to 66(2)(b.1) respecting private sewage dispose and	o in section sal systems,
	(ii)	the manner in which a municipality may manufacture municipal bylaw referred to in section 66(2 respecting private sewage disposal systems	ake a )(b.1) ;
	(l) go do	overning orders and the service of orders, not ocuments;	ices and other
	(m) go re co	overning the preparation, submission and rete ports and information and the reporting of un onditions, accidents and fires;	ntion of Isafe

RSA 2000

(n) governing designs;

- (o) governing quality management systems;
- (p) governing accredited municipalities, accredited regional services commissions, accredited corporations, accredited agencies and the Authority.
- (2) The Lieutenant Governor in Council may, by regulation,
  - (a) declare in force a code, standard or body of rules relating to the matters set out in subsection (1) and require compliance;
  - (b) amend or repeal a code, standard or body of rules declared in force before or after the coming into force of this subsection.

(3) A code, standard or body of rules may be declared in force under subsection (2)

- (a) in whole or in part and with variations or disclaimers, and
- (b) as it read on a specified day or as amended or replaced from time to time.

(4) If a code, standard or body of rules is declared in force as amended or replaced from time to time, any amendments to the code, standard or body of rules or replacement of the code, standard or body of rules comes into force on the first day of the month following the expiry of 12 months after the date on which the amendment or replacement is published, unless the Minister publishes an order in Part I of The Alberta Gazette declaring

- (a) that the amendment or replacement will not be in force on the expiry of 12 months following the date on which the amendment was published, or
- (b) that the coming into force of the amendment or replacement is to occur on an earlier or later date.

(5) Regulations under this section may apply generally or specifically and may provide for which provision of which regulation prevails in the case of a conflict between the regulations.

(6) Before making a regulation under this section, the Lieutenant Governor in Council shall ensure that the Council has the opportunity to review the proposed regulation for a period of 90 days prior to the regulation's being made unless the Council has waived or reduced that period.

(7) Before making a regulation referred to in subsection (2), the Lieutenant Governor in Council shall ensure that the code,

standard, body of rules, amendment or replacement is published, whether by the Council or another association or person, and available to the public.

(8) The Lieutenant Governor in Council may make regulations respecting

- (a) the determination of the date on which an amendment or replacement of a code, standard or body of rules was published;
- (b) the timely review, amendment, repeal and replacement of codes, standards and bodies of rules;
- (c) the timely commencement of codes, standards and bodies of rules, amendments, repeals and replacements.

RSA 2000 cS-1 s65;2001 c28 s19;2004 c19 s6; 2011 c3 s33;2015 c10 s39

#### Implementation amendments to regulations

**65.01(1)** The Lieutenant Governor in Council may, by regulation, amend other regulations made under this Act

- (a) for consistency with this Act as amended from time to time;
- (b) to declare more than one code, standard or body of rules in force as amended or replaced from time to time under section 65(3), (4) and (5).

(2) An amendment under subsection (1) may be made notwithstanding that the regulation being amended was made by a member of the Executive Council or some other person or body. 2015 c10 s40

**65.1** Repealed 2019 c22 s12.

#### **Bylaws**

**66(1)** Except as provided in this section, a bylaw of a municipality that purports to regulate a matter that is regulated by this Act is inoperative.

(2) Notwithstanding subsection (1), a municipality may make bylaws

(a) to carry out its powers and duties under the *Forest and Prairie Protection Act*;

- (b) respecting minimum maintenance standards for buildings and structures;
- (b.1) in the manner and to the extent authorized by the regulations, respecting private sewage disposal systems;
  - (c) respecting unsightly or derelict buildings or structures.

(3) Notwithstanding subsection (1), an accredited municipality may make bylaws

- (a) respecting fees for anything issued or any material or service provided pursuant to this Act, and
- (b) respecting the carrying out of its powers and duties as an accredited municipality.

RSA 2000 cS-1 s66;2015 c10 s41

#### **Prohibitions**

#### Offences

**67(1)** A person who interferes with or in any manner hinders an Administrator or a safety codes officer in the exercise of the Administrator's or officer's powers and performance of the Administrator's or officer's duties under this Act is guilty of an offence.

(2) A person who knowingly makes a false or misleading statement under section 34(4)(c) either orally or in writing is guilty of an offence.

(3) A person who fails to prepare, submit or retain any information that the person is required by this Act to prepare, submit or retain is guilty of an offence.

- (4) A person who
  - (a) contravenes this Act,
  - (b) contravenes a condition in a permit, certificate or variance,
  - (c) contravenes an order, or
  - (d) fails to carry out any action required in an order to be taken within the time specified in it,

is guilty of an offence.

(5) A person who is guilty of an offence under this Act is liable on conviction for each day or part of a day on which the offence occurs or continues.

RSA 2000 cS-1 s67;2015 c10 s42

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#### Penalty

**68(1)** A person who is guilty of an offence is liable

- (a) for a first offence,
  - (i) to a fine of not more than \$100 000 and, in the case of a continuing offence, to a further fine of not more than \$1000 for each day during which the offence continues after the first day or part of a day, or
  - (ii) to imprisonment for a term not exceeding 6 months,

or to both fines and imprisonment, and

- (b) for a 2nd or subsequent offence,
  - (i) to a fine of not more than \$500 000 and, in the case of a continuing offence, to a further fine of not more than \$2000 for each day or part of a day during which the offence continues after the first day, or
  - (ii) to imprisonment for a term not exceeding 12 months,

or to both fines and imprisonment.

(2) If a person is guilty of an offence under this Act, the court may, in addition to any other penalty imposed or order made, order the person to comply with this Act or any order, permit, certificate or variance, or all or any one or more of them, as the case requires. RSA 2000 cS-1 s68;2012 c7 s3

#### **Prosecution time limit**

**68.1(1)** A prosecution of an offence under this Act may not be commenced more than 3 years after the day on which evidence of the offence first came to the attention of a safety codes officer.

(2) This section applies only in respect of offences that are committed on or after the day on which this section comes into force.

2012 c7 s3

#### Proof by certificate

**69** For the purpose of a prosecution for a contravention of any provision of this Act requiring a person to hold a certificate of competency, permit or variance, a certificate purporting to be

signed by an Administrator stating that a person was or was not on a named day the holder of a certificate of competency, permit or variance is proof, in the absence of evidence to the contrary, of the facts stated in it, without proof of the signature or official character of the person signing the certificate.

1991 cS-0.5 s65

#### Penalty proceeds

**70** If a fine results from an offence under this Act with respect to a matter that an accredited municipality is authorized to administer, the fine may, on the application of the accredited municipality when the fine is assessed, accrue to the benefit of the municipality. 1991 cS-0.5 s66

#### **Transitional Provisions**

#### Permits, etc., continue

**71(1)** On March 31, 1994, a permit, licence, certificate, approval, registration or order under the

- (a) *Fire Prevention Act*, SA 1982 cF-10.1, or
- (b) Uniform Building Standards Act, RSA 1980 cU-4,

continues as a permit, certificate, registration or order under this Act until it would have expired under the Act under which it was issued or it is suspended or cancelled.

(2) On October 1, 1994, a permit, licence, certificate, approval, registration or order under the

- (a) Electrical Protection Act, RSA 1980 cE-6,
- (b) Elevator and Fixed Conveyances Act, RSA 1980 cE-7,
- (c) Gas Protection Act, RSA 1980 cG-2,
- (d) Plumbing and Drainage Act, RSA 1980 cP-10, or
- (e) Boilers and Pressure Vessels Act, RSA 1980 cB-8,

continues as a permit, certificate, registration or order under this Act until it would have expired under the Act under which it was issued or it is suspended or cancelled.

(3) In accordance with section 36(1)(e) of the *Interpretation Act*, all or any part of a code, standard or body of rules and the revisions, variations and modifications to it that have been adopted or declared in force by a regulation under an Act referred to in

subsection (1) or (2) is deemed to be a regulation that has been made under this Act.

1991 cS-0.5 s67

#### Inspectors, local assistants

**72(1)** On March 31, 1994, a person who is appointed as an inspector under the

- (a) Fire Prevention Act, SA 1982 cF-10.1, or
- (b) Uniform Building Standards Act, RSA 1980 cU-4,

is deemed, in accordance with the regulations, to be appointed as a safety codes officer for the period of time set out in the regulations with the powers and duties of an inspector that the person had under the previous Act.

(2) On October 1, 1994, a person who is appointed as an inspector under the

- (a) *Electrical Protection Act*, RSA 1980 cE-6,
- (b) Elevator and Fixed Conveyances Act, RSA 1980 cE-7,
- (c) Gas Protection Act, RSA 1980 cG-2,
- (d) Plumbing and Drainage Act, RSA 1980 cP-10,
- (e) Boilers and Pressure Vessels Act, RSA 1980 cB-8, or
- (f) bylaws passed pursuant to section 159(i) of the Municipal Government Act, RSA 1980 cM-26,

is deemed, in accordance with the regulations, to be appointed as a safety codes officer for the period of time set out in the regulations with the powers and duties of an inspector that the person had under the previous Act.

(3) On March 31, 1994, a person who is designated or appointed as a local assistant under the *Fire Prevention Act*, SA 1982 cF-10.1, is deemed, in accordance with the regulations, to be designated or appointed as a safety codes officer under this Act for the period of time set out in the regulations with the powers and duties that the person had under the *Fire Prevention Act*.

1991 cS-0.5 s68;1994 c44 s5

#### **Municipal duties**

**73(1)** A local authority, as defined in the *Uniform Building Standards Act*, RSA 1980 cU-4, that is authorized to enforce that Act is deemed to be an accredited municipality under this Act with all the powers and duties it had under the *Uniform Building Standards Act.* 

(2) On March 31, 1994, a municipality with any powers or duties under the *Fire Prevention Act*, SA 1982 cF-10.1, relating to matters regulated under this Act is deemed to be an accredited municipality with those powers and duties.

(3) On October 1, 1994, a municipality with any powers or duties under the

- (a) Electrical Protection Act, RSA 1980 cE-6,
- (b) Elevator and Fixed Conveyances Act, RSA 1980 cE-7,
- (c) Gas Protection Act, RSA 1980 cG-2,
- (d) Plumbing and Drainage Act, RSA 1980 cP-10,
- (e) Boilers and Pressure Vessels Act, RSA 1980 cB-8, or
- (f) bylaws passed pursuant to section 159(i) of the *Municipal Government Act*, RSA 1980 cM-26,

relating to matters related under this Act is deemed to be an accredited municipality with those powers and duties. 1991 cS-0.5 s69;1994 c23 s42;1994 c44 s6





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Province of Alberta

SAFETY CODES ACT

# PERMIT REGULATION

# Alberta Regulation 204/2007

With amendments up to and including Alberta Regulation 22/2019 Current as of April 1, 2019

# Office Consolidation

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# (Consolidated up to 22/2019)

# ALBERTA REGULATION 204/2007

# Safety Codes Act

# PERMIT REGULATION

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# Part 3 Coming Into Force

30 Coming into force

#### Interpretation

**1(1)** In this Regulation,

- (a) "Act" means the *Safety Codes Act*;
- (b) "Administrator" means an Administrator appointed under section 14 of the Act with respect to the applicable discipline;
- (c) repealed AR 31/2015 s5;
- (d) "Alberta Electrical Utility Code" means the Alberta Electrical Utility Code declared in force by the *Electrical Code Regulation* (AR 209/2006);
- (e) "Alberta Fire Code" means the National Fire Code 2019 Alberta Edition declared in force by the Fire Code Regulation (AR 32/2015);
- (f) "Electrical Code" means the Canadian Electrical Code, Part I, declared in force by the *Electrical Code Regulation* (AR 209/2006);

Section 1	PERMIT REGULATION	AR 204/2007
(g) "electrician" means a person who hold or equivalency in the electrician trade a the <i>Apprenticeship and Industry Train</i>		s a trade certificate acceptable under <i>ing Act</i> ;
(h)	"electronic signature" means informati creates, adopts, records, transmits or st other intangible form in order to effect document and that is either in, attached with that document;	on that a person ores in digital or a signature on a l to or associated
(i)	"farm building" means a building locat land as defined in the <i>Agricultural Ope</i> <i>Act</i> that is occupied for an agricultural defined in the <i>Agricultural Operation</i> including, but not limited to,	ed on agricultural eration Practices operation as Practices Act,
	(i) housing livestock,	
	<ul> <li>storing, sorting, grading or bulk p agricultural products that have no secondary processing, and</li> </ul>	ackaging of t undergone
	(iii) housing, storing or maintaining m undertaken in the building;	achinery that is
(j)	"gasfitter" means a person who holds a equivalency in the gasfitter trade accep Apprenticeship and Industry Training	trade certificate or table under the <i>Act</i> ;
(k)	"master electrician" means a person where electrician certificate of competency is the Act;	no holds a master sued pursuant to
(1)	<ul> <li>(l) "parcel of land" means a parcel of land as defined in section 616 of the <i>Municipal Government Act</i>;</li> <li>(m) "permit issuer" means a safety codes officer or a person designated to issue permits pursuant to section 44 of the Act;</li> </ul>	
(m)		
(n)	"plumber" means a person who holds a equivalency in the plumber trade accep <i>Apprenticeship and Industry Training</i>	trade certificate or stable under the <i>Act</i> ;
(0)	"private sewage installer" means a per- private sewage installer certificate of c pursuant to the Act;	son who holds a ompetency issued
(p)	"relocatable industrial accommodation to which Part 10 of the <i>National Buildi</i>	" means a building ing Code - 2019

3

*Alberta Edition* declared in force by the *Building Code Regulation* (AR 31/2015) applies;

- (q) "restricted master electrician" means a person who holds a restricted master electrician certificate of competency issued pursuant to the Act;
- (r) "restricted private sewage installer" means a person who holds a restricted private sewage installer certificate of competency issued pursuant to the Act;
- (s) "rural wireman" means a person who holds a rural wireman certificate of competency issued pursuant to the Act;
- (s.1) "sheet metal worker" means a person who holds a trade certificate or equivalency in the sheet metal worker trade acceptable under the *Apprenticeship and Industry Training Act*;
  - (t) "sign installation technician" means a person who is permitted to perform sign installation tasks in the electrical trade pursuant to an authorization under the *Apprenticeship and Industry Training Act*;
- (u) "single family residential dwelling" means a residential dwelling for a single family that includes, if applicable, a residential garage or accessory structure associated by use to the dwelling, if the garage or structure is situated on the same parcel of land as the dwelling;
- (v) "undertaking" means the construction of a thing or the control or operation of a thing, process or activity to which the Act applies.

(2) Unless otherwise defined in the Act or this Regulation, the definitions in a code, standard or body of rules relating to the building, electrical, gas plumbing or private sewage discipline declared in force under the Act apply to this Regulation.

(3) For greater certainty, in this Regulation a building includes a stage and a tent, including an overhead structure used or intended to be used in conjunction with a stage or tent

AR 204/2007 s1;40/2012;17/2015;31/2015;194/2015;22/2019

#### Exemptions

- **2** This Regulation does not apply to the following:
  - (a) an accredited corporation operating within the scope of its terms of accreditation;
- (b) equipment and materials regulated under the *Elevating* Devices, Passenger Ropeways and Amusement Rides Permit Regulation (AR 28/2012);
- (c) equipment, materials and systems regulated under the *Pressure Equipment Safety Regulation* (AR 49/2006). AR 204/2007 s2;17/2015

#### Part 1 Permits

PERMIT REGULATION

#### Permit required

**3(1)** Subject to subsection (2), a person shall not start any undertaking for which a permit is required under this Regulation unless a permit has been issued.

(2) If a permit issuer is not readily available and there is imminent serious danger to, or imminent serious danger of damage to, persons or property because of any thing, process or activity to which this Act applies or because of a fire hazard or risk of an explosion, a person may, without a permit, start an undertaking for which a permit is required under this Regulation but that person must apply for a permit as soon as a permit issuer is available.

#### Permit not required

**4** A permit is not required for

- (a) an undertaking that a body accredited by the Standards Council of Canada has inspected pursuant to the body's terms of accreditation and has certified, or
- (b) an undertaking governed by a quality control program acceptable to an Administrator.

#### Liability

**5** A permit issued under this Regulation does not make or imply any assurance or guarantee about the life expectancy, durability, operating performance or workmanship of the equipment, materials or undertaking nor shall the permit be construed as an approval or acceptance of the undertaking.

#### **Building Discipline**

#### **Building permit**

**6(1)** A permit in the building discipline is required for the following:

- (a) the construction of a building, including the renovation of or addition to a building;
- (b) a change in the occupancy classification of a building.

(2) A permit issuer may require a separate permit for specific parts of the undertaking to which the relevant building code declared in force under the *Building Code Regulation* (AR 31/2015) applies if the specific parts involve a compulsory certification trade under the *Apprenticeship and Industry Training Act.* 

(3) Despite subsection (1), a permit is not required for the following:

PERMIT REGULATION

- (a) construction of a building, including a renovation or an addition to a building, if
  - (i) the building is not a stage or tent or an overhead structure that is used in or intended to be used in conjunction with a stage or tent,
  - the construction, renovation or addition does not exceed \$5000 in prevailing market value, and
  - (iii) matters affecting health or safety are not at risk;
- (b) painting or decorating if
  - (i) matters affecting health or safety are not at risk, and
  - (ii) there is no structural change to the building;
- (c) re-roofing or re-siding if
  - (i) the re-roofing or re-siding is undertaken for aesthetic purposes or for the purposes of maintaining the building,
  - (ii) the re-roofing or re-siding is being replaced with roofing or siding of a similar type,
  - (iii) matters affecting health or safety are not at risk, and
  - (iv) there is no structural change to the building;
- (d) to replace or alter ducting serving a space heating appliance if
  - (i) it is located in a single family residential dwelling, and

Section 6.1		PERMIT REGULATION	AR 204/2007
	(ii) ther ven	e is no design change required to tilation system;	the heating and
(e)	construction of, including a renovation of or an addition to, a stage if the platform of the stage is not at a distance greater than 1200 mm above the adjacent surface on any side;		
(f)	construct to, a tent	tion of, including a renovation of	or an addition
	(i) that	is	
	(A)	located on property that is design residential use by municipal land and used as a single family resid and	nated for I use bylaws ential dwelling,
	(B)	not used for a commercial purpo	se,
	or		
	(ii) that than	is located on a campsite or camps a 3 m from any other structure if the	ground or more he tent
	(A)	does not cover, and is not part of tents that collectively cover, mor ground, and	f a group of the than 60 $m^2$ of
	(B)	does not contain, and is not inter commercial cooking equipment;	nded to contain,
(g)	construct detached than 600 deck.	tion of an exterior deck that is atta from a single family dwelling tha mm from that adjacent grade on a	iched to or at is not greater all sides of the
(4) Des the reloc relocata not mor	pite subse cation of a ble indust e than 28 o	ction (1), a permit is not required relocatable industrial accommodation rial accommodation is at the reloc days. AR 204/2007 s6;223/2010;31/201	with respect to ation if the ation site for 5;194/2015;22/2019
Building p 6.1(1)	<b>ermit for</b> In this sec	<b>new home</b> tion,	
(a)	"authoriz New Hor	zation" means an authorization as <i>ne Buyer Protection Act</i> ;	defined in the
(a 1)	"licence"	'manage light and in the	New Home

(a.1) "licence" means a licence as defined in the *New Home Buyer Protection Act*;

(a.2)	"operator's licence" has the same meaning as in section 1(1)(bb) of the <i>Traffic Safety Act</i> ;			
(b)	"new home" means a new home as defined in the <i>New</i> <i>Home Buyer Protection Act</i> ;			
(c)	"owner builder" means an owner builder as defined in the New Home Buyer Protection Act;			
(d)	"Registrar" means the person appointed under section 8 of the <i>New Home Buyer Protection Act</i> as the Registrar for the purposes of that Act;			
(e)	"required home warranty coverage" means required home warranty coverage as defined in the <i>New Home Buyer</i> <i>Protection Act</i> .			
(2) A ponew horissuer, in home	ermit issuer shall not issue a building permit for a proposed ne unless the applicant provides evidence to the permit n a form acceptable to the Registrar, that the proposed new			
(a)	complies with the requirements of the New Home Buyer Protection Act, and			
(b)	will be built by a person that holds the appropriate licence or authorization or is exempt from the requirement for a licence or authorization.			
(2.1) Before issuing a building permit to an applicant, a permit issuer may require the applicant to produce the applicant's operator's licence or another form of identification that is issued by the government of Canada or a province, is satisfactory to the Registrar and shows the applicant's date of birth.				
(3) On request of the Registrar, a permit issuer shall forward to the Registrar information provided by applicants for permits under subsection (2).				
(4) Who new hor that it w	ere a permit issuer issues a building permit for a proposed ne, the permit issuer shall indicate on the permit the date as applied for. AR 212/2013 s2;99/2016;208/2017			

#### Building discipline permit holder

**7(1)** A permit issuer may issue a permit in the building discipline to an owner of the building or to the owner's agent.

(2) A permit issuer may issue a permit for an undertaking referred to in section 6(2) to the following:

 (a) a person having the appropriate certification to carry out the undertaking as required by the *Apprenticeship and Industry Training Act*;

PERMIT REGULATION

(b) an owner who resides or intends to reside in a single family residential dwelling for the installation of building systems in the dwelling.

(3) Without limiting the generality of section 44(2) of the Act, for the purpose of achieving the level of safety intended by the Act and the regulations, a permit issuer may limit the type and scope of the undertaking for which a permit is issued under subsection (2)(b). AR 204/2007 s7;17/2015

#### **Electrical Discipline**

#### **Electrical permit**

**8(1)** A permit in the electrical discipline is required to install, alter or add to an electrical system.

(2) Despite subsection (1), a permit is not required for the following:

- (a) communication systems;
- (b) electrical installations to which the CSA Standard CAN/CSA M421-00(R2000) The Use of Electricity in Mines applies;
- (c) electrical installations related to an elevating device;
- (d) extra low voltage, Class 2 electrical circuits unless they are for any of the following:
  - (i) safety control;
  - (ii) locations described as hazardous in the Electrical Code;
  - (iii) electro-medical purposes;
  - (iv) lighting;
- (e) the replacement of electrical equipment with units of a similar type if the replacement is made for the purpose of maintaining the system and does not modify the ratings or characteristics of the electrical installation.

AR 204/2007 s8;194/2015

#### Electrical discipline permit holder

**9(1)** A permit issuer may issue a permit in the electrical discipline to the following:

- (a) a master electrician for any electrical system within the scope of the master electrician's certification;
- (b) a restricted master electrician for any electrical system within the scope of the restricted master electrician's certification;
- (c) a rural wireman for an electrical undertaking in a residence, farm building or similar structure, in an area of Alberta prescribed by an Administrator, if the service ampacity does not exceed 100 amperes and 300 volts single phase;
- (d) an owner who resides or intends to reside in a single family residential dwelling where the electrical system serves that dwelling;
- (e) an owner of a farm building served by a single phase electrical system;
- (f) an owner, operator or designate of a power line construction company or an electrical utility for the construction of an overhead or underground power system governed by the Alberta Electrical Utility Code;
- (g) a sign installation technician to perform electrical undertakings within the scope of the technician's duties as permitted by the *Apprenticeship and Industry Training Act*;
- (h) an owner or operator if the requirements of section 23 are met.

(2) Without limiting the generality of section 44(2) of the Act, for the purpose of achieving the level of safety intended by the Act and the regulations, a permit issuer may limit the type and scope of the undertaking for which a permit is issued under subsection (1)(d) or (e).

AR 204/2007 s9;295/2009;17/2015

#### **Fire Discipline**

#### Storage tank system permit

**10** A permit in the fire discipline is required to install, alter or remove a storage tank system to which the Alberta Fire Code applies.

#### Fire discipline permit holder

**11** A permit issuer may issue a permit in the fire discipline to the owner of the parcel of land on which the storage tank system is to be installed.

#### Gas Discipline

#### Gas permit

**12(1)** A permit in the gas discipline is required to install, alter or add to a gas system.

(2) Despite subsection (1), a permit is not required for the following:

- (a) a gas system that uses propane or natural gas as an alternate or principal fuel for motive power on a motor vehicle;
- (b) a gas system that uses propane or natural gas to provide conditioned air in a cargo transport unit;
- (c) the replacement of a dryer, range, water heater or space heating appliance if
  - (i) it is located in a single family residential dwelling, and
  - (ii) no design change is required to any gas piping or venting system;
- (d) the relocation, by a gas utility company, of a gas meter, including any piping changes that may be required for the relocation;
- (e) a container having a propane capacity of not more than 454 litres water capacity or when containers are manifolded together, the aggregate capacity of the containers does not exceed 454 litres water capacity;
- (f) a propane container and installation serving a pump jack, flare stack or oil tank heater at an oil field well site.

#### Gas discipline permit holder

**13(1)** A permit issuer may issue a permit in the gas discipline to the following:

(a) a gasfitter;

Section 14		PERMIT REGULATION	AR 204/2007
	(b)	an owner who resides or intends to reside family residential dwelling if the gas syste dwelling;	in a single em serves the
	(c)	an owner of a farm building if the gas syst farm building;	tem serves the
	(d)	a person who has satisfactorily completed training acceptable to the Administrator for installation of liquefied petroleum tanks;	a course of or the
	(e)	a person who has satisfactorily completed training acceptable to the Administrator for installation of natural gas secondary lines;	a course of or the
	(f)	an owner or operator if the requirements o met;	of section 23 are
	(g)	a certified journeyperson sheet metal work is for the replacement of a furnace in a sin residential dwelling including, if applicabl replacement of the gas piping downstream valves for the furnace.	ker if the permit gle family le, the n of the shut-off
	(2) Wit the purp the regu undertal (c).	hout limiting the generality of section 44(2) ose of achieving the level of safety intende lations, a permit issuer may limit the type a king for which a permit is issued under subs	) of the Act, for d by the Act and and scope of the section (1)(b) or
		AR 20	04/2007 s13;17/2015
		Plumbing Discipline	
	Plumbing 14(1) A alter or a	<b>permit</b> A permit in the plumbing discipline is requine add to a plumbing system.	red to install,
	(2) Des followir	pite subsection (1), a permit is not required	for the
	(a)	to install a water service that connects a bumunicipal or private water supply;	uilding to a
	(b)	to install a building sewer or storm sewer building;	outside of a
	(c)	to change a fixture, water heater, faucet, tr design change to the piping system is not	rap or valve if a required;

- (d) to install plumbing fixtures in a single family residential dwelling if roughed-in piping has been completed under another permit;
- (e) to install residential water treatment devices in a single family residential dwelling.

#### Plumbing permit holder

**15(1)** A permit issuer may issue a permit in the plumbing discipline to the following:

- (a) a plumber;
- (b) an owner who resides or intends to reside in a single family residential dwelling if the plumbing system serves the dwelling;
- (c) an owner of a farm building if the plumbing system serves the farm building;
- (d) an owner or operator if the requirements of section 23 are met;
- (e) a person holding a valid private sewage installer certificate of competency, in respect of a portion of a plumbing system that is
  - (i) located outside a building, and
  - (ii) required for the treatment, flow control or pressure delivery of wastewater from a plumbing system that discharges into a municipal sewage collection system.

(2) Without limiting the generality of section 44(2) of the Act, for the purpose of achieving the level of safety intended by the Act and the regulations, a permit issuer may limit the type and scope of the undertaking for which a permit is issued under subsection (1)(b) or (c).

AR 204/2007 s15;17/2015;194/2015

#### Private Sewage Discipline

#### Private sewage disposal permit

**16(1)** A permit in the private sewage discipline is required for a private sewage disposal system undertaking.

(2) Despite subsection (1), a permit is not required for the replacement of any equipment of a private sewage disposal system

with units of a similar type if the replacement is made for the purpose of maintaining the system and does not modify the design of the system.

(3) Despite subsection (1), a permit is not required for basic privies that are not connected to a holding tank.

AR 204/2007 s16;266/2009

#### Private sewage system permit holder

**17(1)** A permit issuer may issue a permit in the private sewage discipline to the following:

- (a) a private sewage installer for any private sewage system;
- (b) a restricted private sewage installer for the installation of holding tank;
- (c) an owner who resides or intends to reside in a single family residential dwelling for any private sewage system if the private sewage disposal system serves the dwelling;
- (d) an owner of a farm building for any private sewage system if the private sewage disposal system serves the farm building.

(2) Without limiting the generality of section 44(2) of the Act, for the purpose of achieving the level of safety intended by the Act and the regulations, a permit issuer may limit the type and scope of the undertaking for which a permit is issued under subsection (1)(c) or (d).

AR 204/2007 s17;17/2015

#### **Utility Connections**

#### Gas, electricity, water

**18(1)** A supply of gas or electricity shall not be provided to a gas or electrical system unless

- (a) the permit issued in respect of that installation is presented to the supplier,
- (b) the permit issuer notifies the supplier that the required permit has been obtained, or
- (c) the permit issuer authorizes a temporary connection.

(2) Despite subsection (1), a permit or notification from a permit issuer does not obligate a supplier of gas or electricity to supply gas or electricity to an installation.

14

(3) A permit or notification from a permit issuer does not obligate a supplier of water to supply water to a plumbing system.

#### Information System

#### **Permit information**

**19(1)** A permit issuer shall, on request, provide an Administrator or the Council with permit information for use in an information system.

(2) The Administrator or the Council may disclose the permit information in accordance with section 63 of the Act. AR 204/2007 s19:17/2015

#### Part 2 Permit Administration

#### Form of permit application

**20** An application for a permit and any information required to be included with the application must be submitted in a form and in a manner satisfactory to the permit issuer and the application must

- (a) state the use or proposed use of the premises,
- (b) clearly set forth the address or location at or in which the undertaking will take place,
- (c) include the owner's name and mailing address,
- (d) include any further information as required to enable the permit issuer to determine the permit fee,
- (e) describe the undertaking, including information, satisfactory to the permit issuer, regarding the technical nature and extent of the undertaking,
- (f) set out the name, complete address, telephone number and evidence of credentials required of the permit applicant, together with the written or electronic signature of the permit applicant,
- (g) for a permit for the building discipline,
  - (i) state the type of occupancy,
  - (ii) set out the prevailing market value of the undertaking, and

Section 21			PERMIT REGULATION	AR 204/2007
		(iii)	if a structure is to be installed on a ten as determined by the permit issuer, sta for which the structure will be installe	porary basis, tte the period d,
	(h)	inclu pern	ude a method of payment of fees accept nit issuer, and	table to the
	(i)	inclu cons	ude any further information that the per siders necessary, including the provisio	mit issuer n of
		(i)	a site plan that shows the actual dimen- parcel of land and the location of the p undertaking in relation to the boundar parcel of land and other buildings on t of land,	isions of the proposed ies of the he same parcel
		(ii)	copies of plans and specifications for tundertaking, and	the proposed
		(iii)	documentation required to verify infor provided by the applicant. AR 204/2007 s20	rmation );223/2010;17/2015
Req 2	uired p 1 Am	oermi	t issued - terms	
Ľ	ГАР		issued under this Regulation	
	(a)	mus the p	t include a unique identifier that has be permit issuer to the undertaking,	en assigned by
	(b)	mus	t state the date on which the permit is is	ssued,
	(c)	mus the p	t state the name of the owner and the poermit has been issued,	erson to whom
	(d)	mus	t state where the undertaking is to take	place,
	(e)	mus unde	t describe the undertaking or portion of ertaking governed by the permit, and	the
	(f)	may cons	contain any other information that the iders necessary.	permit issuer
Tern	ns and	con	ditions of permit	
2	<b>2</b> A n	ermit	issuer may issue a permit for an under	taking, or part
o so M so	f the un ection 4 linisten ervices	nderta 44(2) and com	king, and may, without limiting the ge of the Act and subject to the applicable of the accredited municipality or accred mission, impose terms and conditions of	nerality of e policies of the dited regional on the permit

that are consistent with the purpose and intent of the Regulation, including, but not limited to,

- (a) requiring that permission be obtained from the permit issuer before the occupancy or use of the construction, process or activity under the permit,
- (b) setting the date on which the permit expires,
- (c) setting a condition that causes the permit to expire,
- (d) setting the period of time that the undertaking may be occupied, used or operated,
- (e) setting out the scope of the undertaking being permitted,
- (f) setting the location or locations of the undertaking being permitted,
- (g) setting the qualifications of the person responsible for the undertaking,
- (h) requiring an identification number or label to be affixed to the undertaking, and
- (i) requiring the approval of a safety codes officer before any part of the building or system is covered or concealed.

#### Annual permit

**23** A permit issuer may issue a permit in the electrical, gas or plumbing discipline allowing the owner or operator of the premises to effect minor repairs, alterations or additions on the premises under the following conditions:

- (a) a person who holds a trade certificate in the appropriate trade under the *Apprenticeship and Industry Training Act* carries out the undertaking;
- (b) the permit does not entitle the owner or operator to effect major alterations in or additions to the premises;
- (c) the owner or operator maintains on the premises an accurate record of all repairs for the previous 2 years and makes the record available to a safety codes officer on request;
- (d) the permit is limited to a one-year term, subject to renewal by the permit issuer.

AR 204/2007 s23;17/2015

#### Responsibilities of the permit holder

**24** On the issuance of a permit, the permit holder must

- (a) comply with the terms and conditions of the permit,
- (b) undertake the construction, process or activity in accordance with the Act and applicable codes and standards,
- (c) notify the permit issuer
  - (i) if the permit holder does not intend to complete the undertaking, or
  - (ii) if there is a change in ownership from the owner as stated on the permit application,
- (d) ensure that all plans and specifications required to apply for the permit are available at the construction site at all reasonable times for inspection by a safety codes officer, and
- (e) ensure that a permit for the building discipline is posted or readily available at the construction site. AR 204/2007 s24:17/2015

### Term of a permit

**25(1)** In the absence of a different term set under section 22, a permit expires if the undertaking to which it applies

- (a) is not commenced within 90 days from the date of issue of the permit,
- (b) is suspended or abandoned for a period of 120 days, or
- (c) is in respect of a seasonal use residence and the undertaking is suspended or abandoned for a period of 240 days after the undertaking is started.

(2) Despite subsection (1), when the term of a permit has not expired, a permit issuer may, in writing, and on the request of the permit holder, extend the permit for an additional fixed period of time that the permit issuer considers appropriate.

#### Refusal to issue, suspension or cancellation

**26** Without restricting the generality of section 46 of the Act, a permit issuer may refuse to issue a permit and, without restricting the generality of section 44 of the Act, a safety codes officer may suspend or cancel a permit that has been issued if

Section 27	PERMIT REGULATION	AR 204/2007
(a)	in the case of an addition or alteration, th undertaking is unsafe or will reduce the l the undertaking governed by the permit t which is intended by the Act and regulati standards or body of rules declared to be to the Act,	e existing evel of safety of o below that ons, codes, in force pursuant
(b)	incorrect or insufficient information is surrespect to the permit or the undertaking to the permit,	bmitted with o be governed by
(b.1)	incorrect or insufficient information is pr section 11 of the New Home Buyer Prote Regulation or section 2 of the New Home Protection (Regional Municipality of Wo Regulation,	ovided under ection (General) e Buyer od Buffalo)
(b.2)	evidence provided under section 6.1(2) w no longer correct,	as incorrect or is
(c)	in the opinion of the permit issuer, the un which the permit would be or has been is does contravene the Act or another enact	dertaking for sued would or ment,
(d)	the permit fee has not been paid,	
(e)	there is a contravention of any condition permit was issued, or	under which the
(f)	the permit was issued in error,	
(g)	an administrative penalty has been issued who submitted the permit application, an within 30 days, if	l, to the person d was not paid
	(i) no appeal was filed under section 57	7.3 of the Act, or
	<ul> <li>(ii) an appeal was filed under section 57 the penalty was upheld in whole or AR 204/2007</li> </ul>	7.3 of the Act and in part. \$26;99/2016;207/2017
<b>Deviation</b> <b>27</b> No or terms written	from permit conditions person shall deviate or authorize a deviati or conditions of a permit without first obt permission of the permit issuer.	on from a permit aining the
Permit tra	nsfer, termination	

**28(1)** If a holder of a permit relinquishes the holder's interest or participation in the undertaking governed by the permit before the

undertaking is completed, the permit or any label or identification number issued as part of a permit

- (a) is terminated, and
- (b) applies only to the part of the undertaking completed before the termination unless the permit issuer authorizes the permit or label or identification number to be transferred.

(2) A permit is not transferable to any other person unless the transfer is authorized in writing by the permit issuer.

#### Part 3 Coming into Force

**29** Repealed AR 208/2017 s4.

#### Coming into force

**30** This Regulation comes into force on April 1, 2008.





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# wcb-Alberta Employer Handbook



# Your responsibilities when a work-related injury or illness happens:

## **Report the injury**

- If you have been advised that one of your employees has been injured,it is the law to report the injury to us within 72 hours.
- Report fatalities immediately.
- Provide your worker with a Worker Report of Injury Form and a copy of your Employer Report of Injury or Occupational Disease.

#### Treatment

- Provide any first aid treatment required at the scene of the accident. Keep a record of the treatment and provide your worker with a copy.
- If required, send your worker for immediate medical attention.
   You are responsible to arrange and pay for transportation if there is a cost associated (e.g., ambulance fees or taxi fare).

### Wages and health benefits

- Pay your injured worker's full wages for the day the injury occurred. If they are unable to work beyond the day of the accident, compensation payments start the first regular working day afterward. Cheques are issued every two weeks.
- If you continue to pay your worker full wages during the period of disability, the compensation they are eligible to receive will be paid to you. Please advise your adjudicator or case manager that you are paying your worker directly to avoid duplicate wage-loss payments.
- V Notify us within 24 hours of your worker's return to work.
- If your worker was injured between September 1, 2018 and March 31, 2021 and you were paying into their employment benefit plan before their accident or illness, you're also required to continue paying for your injured workers' health benefits while they are absent from work for up to one year following the date of the accident. This is no longer required for claims occurring on or after April 1, 2021, though you may voluntarily choose to extend health benefits for your worker while they're away from work.

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## What is workers' compensation?



The Workers' Compensation Act is the provincial legislation that regulates the workers' compensation system and the assistance workers receive following a workplace accident.

The workers' compensation system defines the income and medical support for workers injured on the job. The Workers' Compensation Board – Alberta (WCB-Alberta) is a neutral body tasked with administering the Workers' Compensation Act.

#### WCB-Alberta's responsibility

To provide high quality service and fair compensation to employers and injured workers.

#### **Employer's responsibility**

- To report workplace injuries to WCB-Alberta;
- To maintain an account and pay premiums;
- To work with employees to prevent injuries and help injured workers return to work.
- To return their injured workers to the same job or an alternative job after a workplace accident.
- Cooperate with both WCB and your worker in all aspects of your workers' safe return to work.

**IMPORTANT:** When a workplace injury happens, it is the law for you to report it. It is illegal for an employer/supervisor to ask your injured worker to not report an injury. Please see page 7 for the types of injuries that require reporting.

#### Worker's responsibility

- To file a WCB claim if they are hurt at work;
- To maintain regular contact with their employer, WCB-Alberta and their health care provider to help coordinate their return to work.
- Cooperate with both WCB and their employer in all aspects of their recovery and return to work.

#### Health care provider's responsibility

To work with employers, injured workers, other health care providers and WCB-Alberta to assist in recovery and return-to-work planning.

To view the Act online, visit our website at About WCB > Policy and legislation > Legislation.

# Principles of the workers' compensation system

- Workers are eligible to receive benefits for workrelated injuries no matter who is at fault.
- Employers and workers are protected against lawsuits for work-related accidents by others who are also protected under the system.
- Employers throughout the province share the cost of compensating injured workers so individual employers don't have to bear the full cost of claims alone.
- WCB funding is provided entirely by employers through the premiums they pay. Premiums should be fair and competitive. They should cover the full costs of claims, today and into the future.
- WCB-Alberta has exclusive legal authority to make all decisions arising under the Workers' Compensation Act.
- Compensation should be fair and take into account both the nature of the injury and the impact on employment earnings.
- Adjudication decisions are made in favour of the injured worker where all evidence for and against is equally balanced.
- The system provides a comprehensive range of services to both prevent injuries and manage disabilities.
- The system is structured and operated to ensure its long-term stability and financial security as well as its overall cost-effectiveness.

#### Working with WCB-Alberta

Our priority is to help injured workers get back on the job safely—but we don't do this alone. The entire claims process is made better when we can collaborate with you and your worker, and health care providers to make it happen.

Once your worker's claim is approved, we develop a case plan with your worker and you, the employer. A case plan lists clear return-to-work goals and how we will work together to achieve them.

#### **Protection from lawsuit**

As an employer with workers' compensation coverage for your workers, you are protected from lawsuits by them or by any other workers covered by workers' compensation if they are injured on the job.

If you are a business owner, you are not automatically covered by workers' compensation legislation—only your workers are. Employers should consider purchasing personal coverage as well.

## Who is covered?

Employers and workers in most industries are covered by the workers' compensation system. However, some industries are exempt and do not require coverage. These are listed on our website. Visit www.wcb.ab.ca and search "exempt". If you are not sure, call us at 1-866-922-9221.

#### Workers

Most employers in Alberta are required by law to have workers' compensation coverage for all their workers, including:

- full-time employees
- temporary or casual employees (including foreign workers)
- part-time employees
- unpaid workers (working for for-profit companies)\*
- contract workers (unless they are covered by workers' compensation from another employer)
- subcontractors who are considered by WCB-Alberta to be your workers

\*Volunteers (working for not-for-profit companies) are not covered unless the employer chooses optional coverage to protect them.

Most employers not required to have workers' compensation coverage can apply for optional coverage.

#### Farm workers

Farm and ranch employers with six or more employees are required to ensure their waged, non-family workers are covered either through WCB-Alberta or private insurance.

Detailed information about optional coverage with WCB-Alberta for farm and ranch owners can be found on our website or by calling us at 1-866-922-9221.

#### **Employers**

By having workers' compensation coverage for your workers, you are protected from lawsuits by them or by any other workers covered by workers' compensation if they are injured at work. As an employer, you are not automatically eligible for compensation benefits yourself. To protect yourself in the event of a workplace injury, you may wish to consider purchasing personal coverage.

#### **Directors**

Directors are registered officers of a corporation. Where a corporation is the employer, directors of the corporation are not automatically protected from lawsuits by injured workers covered by workers' compensation, nor are they covered for their own work-related injuries. However, they may apply for voluntary personal coverage that provides both forms of protection (see Personal coverage, page 5).

#### **Contractors and subcontractors**

WCB-Alberta coverage for contractors and subcontractors varies depending on whether they are contractors with or without workers.

If you contract your services and also employ workers, you are considered an employer and must maintain your own WCB-Alberta account. In most cases, you are not considered a worker of the principal and are responsible for your own workers' compensation coverage. Coverage may be extended under the principal's account in cases where you employ workers on a strictly casual or intermittent bases and when WCB-Alberta deems you to be a worker.

#### **Proprietors**

For WCB-Alberta purposes, a proprietor is an individual who may own and operate a business and does not employ any workers. Proprietors are not covered unless they are eligible to purchase personal coverage.

#### **Hiring proprietors**

If you hire proprietors to perform work for you and they do not maintain their own WCB-Alberta accounts, they are considered to be your workers and are covered through your account. This means you must pay premiums to cover the work they perform for your business. It also means that your experience record will reflect any injury claims they have while working for you.

#### **Hiring contractors**

If you hire contractors with their own WCB-Alberta coverage, you should ensure their accounts are in good standing. If a contractor's account is in arrears, you may be liable for their unpaid premiums related to the work they do for you even if they are not considered your workers. You can obtain a clearance letter from us online verifying your contractor's coverage and protecting you from this liability (see page 15).

#### **Coverage for workers outside Alberta**

If your employees work outside Alberta, even for a short period, contact us to determine whether your Alberta workers' compensation coverage extends outside the province. You should also contact the workers' compensation board in the jurisdiction where your employees will be working to determine whether you need to establish coverage for your workers there.

## Personal coverage

If you are a business owner, you are not automatically covered by workers' compensation benefits—only your workers are. Don't worry though, optional personal coverage is available to:

- business owners or proprietors with or without workers
- partners in a partnership, with or without workers
- directors of a corporation and members of a society, board, authority, commission or foundation

If you are eligible, personal coverage is flexible, and it can be opened and changed at any time. It automatically renews every year on January 1. You can also customize the amount of coverage you hold based on confirmed earnings. Call us for details.

#### **Benefits of personal coverage**

- Protection against loss of employment income.
   E.g., if your injury or illness is work related and you are unable to work, you can receive compensation for lost earnings.
- Medical and rehabilitation services. Unlike other coverage, WCB-Alberta offers a variety of specialized services to assist you with your return to work, with no preset limits.
- The only coverage that offers protection from lawsuit for you and other parties protected under the system. If you do not have personal coverage, you (as a director) may not be personally protected from lawsuit even though your company may be protected.

Personal coverage may be a contract requirement of bidding on and/or being awarded a contract.

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#### **Choosing a coverage amount**

Cost will vary based on the amount of coverage you purchase and the industry you're in. The minimum annual premium on a WCB account is \$200. It's important to base the coverage on your actual employment earnings (before tax, CPP and EI deductions). This amount will be used to determine the amount you receive if you're hurt at work.

If your income exceeds the maximum earnings covered by WCB, you may also consider carrying additional private insurance to make up the difference.

If injured, you will need to verify your self-employment earnings. This is done through records such as T4 slips, T5 slips, tax returns (T1 General), income and expense statements or payroll stubs. If your records do not match the amount of coverage purchased, compensation benefits will be based on the lesser amount of coverage purchased, guaranteed coverage amount (if applicable) or verified earnings.

If you're a new business owner, we will request a copy of the previous year's tax information. If you do not have a history of self-employed income, you may want to purchase minimum coverage until your business is established and you're able to provide proof of personal employment income.



## Visit our website for current wage replacement benefit rates.

Go to www.wcb.ab.ca/insurance-andpremiums/types-of-coverage/personalcoverage.html.

#### **Guaranteed coverage amount**

An extension of personal coverage, the guaranteed coverage amount allows business owners to be covered, at a set level, without providing earnings information if injured.

There are guaranteed coverage amounts for more than 150 industries. Visit our website under *Resources > For employers > Fact sheets > Coverage* for details.

#### **Registering for coverage**

To register for personal coverage, you first have to open a WCB-Alberta account. Signing up is easy. Visit our website under *Resources > For employers > Online services*.

If you have any questions about additional personal coverage, please call our Contact Centre at 1-866-922-9221.

#### Working in more than one industry

Personal coverage gives you the option of splitting coverage between industries, companies and locations. This can all be done with one policy. If you're an owner in more than one industry, company or location, the distribution of the personal coverage cost is split based on the percentage of time spent in each.

Personal coverage, like all workers' compensation, is based on the overall operations of your business. If your business operations change or expand, please contact us so we can make sure your personal coverage is complete and covers you for all of your work-related activities. Coverage is valid only in the approved industries.

## **Reporting an injury**

By law, employers are required to report injuries that their workers suffer while on the job. If your worker has been injured, you have 72 hours after becoming aware of an injury or illness to submit the Employer Report of Injury form. The sooner we receive your information, the faster we can determine entitlement to benefits and services for your worker.

You need to submit a report to WCB if the accident results in, or is likely to result in:

- lost time or the need to temporarily or permanently modify work beyond the date of accident.
- death or permanent disability (amputation, hearing loss, etc.)
- a disabling or potentially disabling condition caused by occupational exposure or activity (such as a mental health concern, poisoning, infection, respiratory disease, dermatitis, etc.)
- the need for medical or mental health treatment beyond first aid (assessment by physician, psychologist, physiotherapist, chiropractor, etc.)
- incurring medical aid expenses (dental treatment, eyeglass repair or replacement, prescription medications, etc.)

#### Option 1:

#### **Report online using myWCB**

myWCB provides you with access to a number of online services, including reporting. Through myWCB, electronic injury reporting will guide you through the reporting process and provide you with help along the way.

To learn more about myWCB, visit our website under *Resources > For employers > Online services*.

#### Option 2:

#### Submit a one-time injury report

If you are unable to sign up for online services you can still submit a one-time injury report online. Visit our website under *Claims* > *Report an injury* > *For employers*.

#### Option 3:

#### **Report by fax**

If you are unable to access our online services you can submit the Employer Report of Injury form by fax to:

780-427-5863 (Edmonton) 1-800-661-1993 (within Canada)

If you fax the report, do not send another copy by mail.

## If you have questions or need help reporting, call us.

Inside Alberta: 1-866-922-9221 Outside Alberta: 1-800-661-9608 (in Canada)

## Return-to-work planning

Every successful return to work starts with a great plan.

Employers and workers are expected to work together towards a return to the same job or alternative job after a workplace incident.

We are here to support you during your employee's recovery and help you arrange for a safe return to work for him or her. Your worker's adjudicator or case manager will work with you, your employee and health care providers along the way.

To help your injured employee get back on the job sooner, first you need to know what they can do while recovering. If the injury has already happened and you have a myWCB account, you can access a wide range of return-to-work information by logging in.

There is also return-to-work planning information that can be accessed on our website under *Return to Work > Return-to-work planning > For employers*.

#### **Occupational Injury Service**

Occupational Injury Service (OIS) clinics are specially designated to help injured workers return to work quickly and safely by providing expedited care. Injured workers are typically seen within 30 minutes of arriving at the clinic and are seen by a doctor with experience in work-related injuries and WCB-Alberta processes.

OIS is a great support for in-depth return-to-work plans. Quick treatment and a safe and early return to work can reduce claim costs and can help you lower your premiums. In addition to fast access to physicians, return-to-work services offered by OIS include:

- Same-day completion and submission of reports.
- Fast-tracked diagnostic and treatment services for injured workers.
- Return-to-work plan development.
- Retention of skilled and productive workers.
- Coordination of assessment and treatment communication.
- Follow-up support.

**Employers must register for OIS in order to access these services.** To sign up and to learn more about the program, including fees, please visit our website under *Treatment and Recovery > Get treatment > Occupational Injury Service clinics and doctors.* 

#### **Modified work**

Under legislation, offering your worker modified work is no longer an option, it's your responsibility. Modified work is a way of adjusting your employee's job so they can return to work while recovering.

Modified work can include:

- Changes in job tasks or functions (e.g., less lifting or bending).
- Changes in workload (e.g., hours worked per day or the work schedule).
- Alterations to the work area and environment (e.g., work in the office, shop or front counter) or the equipment used.
- Work normally performed by others (e.g., administrative work).
- Cross training or job shadowing.
- Work that needs to be done but you currently do not have an employee assigned to complete the work.

When considering a task as a modified work option for your worker, it is important you make sure the modified task is:

- Achievable given your worker's injury, are they able to do the job physically?
- Safe your modified work plan should not endanger your worker's recovery or safety, or the safety of others.

- Constructive your modified work plan should contribute to your worker's skill development and return to full duties and not cause difficulty or additional expense to your employee (e.g., a shift change that requires additional child care costs).
- Productive your worker's duties should be meaningful to your organization.

How you benefit from providing modified work:

 You retain an experienced worker and reduce any additional hiring or training costs.

- You decrease your worker's time away from work and reduce costs associated with claims.
- You strengthen worker relations by showing an injury doesn't threaten job security.
- You boost worker morale.

To formalize a modified work program for your business, visit our website under *Return to Work* > *Return-to-work planning* > *Formalizing a modified work program*.

# **BEST PRACTICES** in implementing a successful return-to-work program

- 1. With WCB-Alberta, develop a modified work policy that reflects your company's commitment to return to work. It will also ensure you are meeting your obligations after a workplace injury.
- Ensure that modified work is meaningful, of value to the organization and meets the employee's medical restrictions and physical limitations.
- Ensure your employees know that they are expected to participate and you will do everything possible to assist them in getting back to work.
- Make the program flexible so it can accommodate a variety of different situations.
- Ensure the program is available to employees who have work-related and non-work-related injuries.
- Ensure union representatives (if applicable) are aware of the benefits of return-to-work programs.

#### 2. Identify modified work in your company.

- Ask for input from employees regarding modified work opportunities.
- Consider using outside resources to help identify modified work within the organization.

- Observe employees' job tasks and note the physical demands of each, then determine how they could be changed to accommodate an injured employee and document this information.
- 3. Educate employees about return-to-work practices.
- Ensure everyone in the organization understands the organization's return-to-work philosophy.
- Educate management about the needs of injured workers who are returning to work.
- Ensure employees are aware of the benefits of return-to-work programs.

#### 4. Follow modified work policies and procedures.

- If your employee performs modified work past the day of the accident to accommodate an injury, you must report the accident to WCB-Alberta, even if there is no lost time or loss of earnings.
- Ensure all modified work offers are medically approved and documentation is provided to the case manager.
- Maintain regular contact with your employee, their doctor and WCB-Alberta.

## Managing claims

#### **Claim classification**

After reporting—required reporting forms are submitted by you, your worker and a doctor, your worker's injury will be classified and a decision will be made regarding the status of the claim. We work to process claims as quickly as possible to determine the appropriate compensation benefits for your worker.

We will register your worker's claim as one of the following:

- 1. No-time-lost claim
- 2. Lost-time claim
- 3. Interjurisdictional claim

#### No-time-lost claim

If your worker did not miss work past the day of injury, a claim process team will monitor medical treatment.

#### Lost-time claim

Your worker's claim will be assigned to an adjudicator who makes the initial benefit decisions. If they need additional rehabilitation support to return to work, the claim may be transferred from an adjudicator to a case manager.

#### Interjurisdictional claim

If a worker is injured in a province that they work in, but is not a resident of, they can choose to have the claim started in the province of employment or their home province.

For example, a worker who lives in British Columbia, but gets injured on the job while working in Alberta can have their claim initiated in B.C. if they prefer. If so, the workers' compensation board in B.C. can request reimbursement costs from WCB-Alberta.

#### **Claim decision**

Depending on the information submitted to WCB, the status of your worker's claim may be:

- accepted
- not accepted
- pending (a decision has not been made yet)

- processed (a claim has been registered and medical costs are being paid, but the claim has not been reviewed for a decision)
- forwarded for medical investigation (further medical assessments are required before a decision can be made)

Notifying WCB of a worker's injury and partnering with us to provide safe return-to-work options are important ways that employers are involved in the claims process.

#### **Benefits**

Once your worker's claim is accepted they may be entitled to benefits. These can vary depending on the seriousness of their work injury as well as the impact of it on their ability to continue working. The adjudicator and/or case manager will review the claim to ensure they receive the right benefits at the right time during their recovery.

#### **Medical benefits**

These include but are not limited to:

- care and reporting from their doctor
- medications to manage their injury\*
- physiotherapy
- chiropractic treatment
- prescriptions
- hospital care
- dental—for dental injuries
- optometry—for eye injuries
- medically related treatments and tests
- acupuncture
- rehabilitation programs
- psychology services

- hospital-related costs (like casting)
- splints
- crutches
- wheelchairs
- braces
- orthotics
- dental treatment or dentures
- hearing aids—for hearing loss injuries
- lump-sum payment for permanent disability or impairment
- bandages

\* Opioid medications have specific limitations. These may be discussed with your worker's adjudicator or case manager.

#### Return-to-work services, vocational rehabilitation

If your worker's injuries prevent them from returning to their job, their case manager will talk to them about training and skills development opportunities. Here are some of the services we offer:

- return-to-work skills profile
- resumé development/review
- job planning
- Training-on-the-Job (TOJ) program
- academic assessment
- job coaching
- supported job search

# How the Freedom of Information and Protection of Privacy (FOIP) Act affects you

The Workers' Compensation Board is subject to the Freedom of Information and Protection of Privacy (FOIP) Act. The FOIP Act aims to balance the public's right to know and the individual's right to privacy, as these rights relate to information held by public bodies in Alberta. WCB-Alberta is required to protect personal information of workers and employers from unauthorized collection, use and disclosure.

As an employer, you have the right to access your injured worker's claim file for the limited purposes of:

- facilitating return-to-work planning
- understanding medical and vocational rehabilitation and decisions made by WCB-Alberta
- contemplating or advancing a review or appeal

To ensure their privacy is protected, WCB-Alberta will provide only the information relevant to the case, not necessarily the entire claim file.

#### **Survey data**

To help WCB-Alberta improve services, we hire an independent research company to survey a sample of employers. The research company may contact you to take part in the survey. The research company does not tell us who has been contacted and no names are attached to any of the survey responses.



# Manage your WCB account with the myWCB mobile app for employers

With the myWCB app, you can:

- Request real-time clearance letters on an account and view your account's status.
- Check the balance on your account, make payments, update payroll, and change to a monthly payment installment plan by signing up for pre-authorized debit.
- Connect with us directly, by sending a message or requesting a callback.

...all through your phone.

Download the app to get started today. Now available in Google Play and the App Store.

## Premiums and your account

All employers covered by the *Workers' Compensation Act* must establish and maintain an account with WCB-Alberta. As an employer, the premiums you pay help fund the workers' compensation system, protecting you and your workers against the impacts of workplace accidents and injuries. The premium rate-setting process promotes fairness and accountability—today's employers pay the full cost of today's claims, securing future benefits for injured workers.

#### **Industry classifications**

You're classified in an industry with other employers who have similar businesses and risks as you do, with a premium rate set annually for that industry. A premium rate is the amount you pay per \$100 of assessable earnings. The rates vary from industry to industry, reflecting the loss experience for each group.

All employer accounts are subject to a minimum annual premium of \$200.

#### **Employer annual return**

Your workers' compensation coverage is renewed annually. Reporting the assessable earnings paid to your workers for the current year and estimate of what you expect to pay in the upcoming year will ensure that you have the correct WCB-Alberta coverage in place. Through filing your annual return, the information you provide will help make sure you are paying the correct premium amount and receiving a fair and accurate invoice.

The annual return must be submitted before the last day in February of each year.

#### **Assessable earnings**

Assessable earnings are the portion of your workers' gross earnings which you must report on and on which you pay WCB-Alberta premiums. Assessable earnings include the following:

- wages (including overtime)
- salaries
- fair market value for volunteer or unpaid workers
- piece work

- commissions
- training-on-the-job earnings
- bonuses
- holiday pay
- recorded tips and gratuities
- pay in lieu of notice
- taxable benefits

You should review your assessable earnings estimate throughout the year. If your actual assessable earnings vary significantly from your estimate at any time, you should provide a revised estimate to WCB-Alberta to avoid under-reporting penalties.

For farming and ranching operations, some workers are not automatically covered (such as family members of the owner). Assessable earnings need to be reported for these farm and ranch workers only if the farm or ranch owner has purchased optional coverage for them. For more details on who is covered on farming and ranching operations, please visit our website and *Insurance and Premiums > Types of coverage > Farming coverage* or call us at 1-866-922-9221.

#### **Premium audits**

To ensure you pay a fair premium and are in compliance with the Act, WCB-Alberta conducts mandatory premium audits. Premium auditors review employer records of workers' assessable earnings to ensure employers are meeting their reporting requirements, and also review business operations to ensure employers are classified in the correct industry.

It is against the law to take deductions, directly or indirectly, from your workers' earnings to pay the cost of WCB-Alberta coverage.

# How your accident experience affects your premium

Under the performance-based pricing model used by WCB-Alberta, employers with poor performance pay higher premiums; employers with fewer injuries in their operations pay less. All employers participate in these programs; however, WCB-Alberta has developed different pricing programs for different size employers.

#### Experience rating plan for small employers

Employers with less than \$15,000 in premiums over a three-year period can earn discounts or surcharges based on the number of lost-time claims they've had in the previous five years.

#### Experience rating plan for large employers

This plan is designed for those employers paying \$15,000 or more in premiums over a three-year period. Employers pay premium rates higher or lower than the industry rate, based on their company's claims experience. An employer's claim costs are compared to an industry average to determine a discount or surcharge.

Those employers with consistently poor accident records may receive additional surcharges through the Poor Performance Surcharge program. WCB-Alberta works with those employers to help them reduce injuries and manage claims better.

#### Industry Custom Pricing (ICP)

Industry Custom Pricing (ICP) lets your industry take greater control of the premiums you pay. It's a voluntary, flexible option that allows industries to customize various features of their pricing program.

It's an industry-based option that can be chosen only if the majority of the industry agrees to change the base performance pricing program. Employers in the industry are polled, and if 50% of the industry (as measured by assessable earnings) votes in favour, the ICP program will start the next rate year.

Features from the standard performance pricing model that can be customized with ICP include:

Experience ratio – This is your accident experience compared to other employers in your industry. This can be changed allowing more of your performance to be recognized.

- Participation Every employer in the experience rating program is given a participation rate. The larger an employer is (as measured by premiums), the larger their participation factor. This can be changed to allow greater opportunities for bigger discounts or surcharges.
- Maximum discounts and surcharges These can be increased from the standard 40% to 60%.
- Costs used to measure performance If an industry chooses to no longer have cost relief (used to pay for claims that involve the aggravation of injuries from pre-existing claims), the levy required to fund these costs is removed. The result? A decrease to your base industry rate and a more accurate assessment of performance within your industry.

Depending on the ICP options your industry selects, employers doing well will likely pay less, and those who are doing poorly will pay more. All employers will get a lower base premium rate if the industry chooses to remove the cost relief levy.

#### Partnerships in Injury Reduction (PIR)

Partnerships in Injury Reduction (PIR) is designed to help you lower your premiums by encouraging prevention and effective workplace health, safety and return-to-work plans.

It is a voluntary program that operates through the combined efforts of WCB, the Ministry of Labour, industry partners, safety associations, employers and labour groups.

All employers can participate in the program and be eligible for refunds up to 20% by maintaining a Certificate of Recognition (COR).

For more information on WCB-Alberta's pricing programs, visit us on our website under Insurance and Premiums or give our Underwriting team a call at 780-498-7936.

#### Past due accounts

If you are unable to pay by the due date stated on your invoice, please call 1-866-922-9221 for assistance.

## Services for employers

If an injury happens at work, we're here to help you and your worker, every step of the way—but don't forget, we're here to help you manage your WCB-Alberta account, too. Call us, or visit the Resources section of our website for details on any of the following topics.

#### **Managing your account**

- premium information
- personal coverage
- payment arrangements
- clearances for subcontractors
- experience rating
- appeal process
- regulatory requirements
- classification changes
- reporting information

#### **Reporting and managing claims**

- injury reporting
- case management
- claims registration
- return-to-work programs and adjudication
- injury prevention and management

#### Claims audits/evaluation tools

WCB-Alberta's claims audit team audits employers and provides resources to help you evaluate your injury management process. The team educates employers on the importance of legislative compliance when a work-related accident happens, and offers support to effectively manage your employees' return to work. They provide self-assessment tools that can help you monitor or identify gaps to help you improve your overall injury management processes.

For information, email *claims\_audit@wcb.ab.ca*.

#### **Employer education seminars**

Creating a solid return-to-work plan and lowering your premiums doesn't happen by accident, it happens by design. And we can help. We offer a variety of workshops and seminars in Edmonton, Calgary and various locations throughout the province to help you take a look at your programs and your costs. All of the seminars are free to employers with a valid WCB account.

For more information, please call 780-498-4694 or toll free in Alberta 1-866-498-4694. You can also email us at *mailbox.cs.seminars&workshops@wcb.ab.ca*.

Please note: You must register 48 hours prior to the seminar date.

#### **Employer information seminar**

This half-day workshop is designed for people who are new to working within the workers' compensation system and have a position in human resources, payroll or finance within their organization.

#### Return-to-work (modified work) seminar

When an injury happens, it's your responsibility to offer your employees modified work. Return-to-work planning helps you make sure a solid plan is in place to get your injured workers back to work safely. This half-day program is designed for people in management, as well as people involved in health and safety coordination and claims/disability management within your organization.

#### Action planning seminar

Learn more about reducing the costs of workplace injuries and paying the lowest premium for your account. This half-day program is designed for people involved in managing health and safety and disability management programs within your organization.

Pre-requisite: You must be registered in the claims administrator/manager role on myWCB—access to myWCB is needed for this course. You must also have completed the return-to-work seminar within the past 24 months.

#### Appeals system seminar

This half-day seminar gives you a closer look at the WCB review and appeal system. It's designed for people in management, and people who are involved in health & safety coordination and claims/disability management within your organization.

**To register**, visit us on our website under Resources > For Employers > Seminars and workshops

#### Clearances

Before hiring contractors or subcontractors, we can advise you whether or not their WCB accounts are in good standing. If a contractor defaults on their WCB-Alberta account, you may be liable for unpaid premiums on your project.

You can verify that a contractor or subcontractor has a WCB-Alberta account by requesting a clearance from us. Before releasing final payment to contractors or subcontractors, you should obtain a final clearance letter that states their accounts are in good standing and paid to date. A clearance letter relieves you of your liability for that contractor or subcontractor should they default on their WCB-Alberta premium payment.

Requesting and receiving clearances is done in our myWCB employer mobile app or on our website under Insurance and Premiums > Clearance letters > Get a clearance letter.

#### Health care and rehabilitation services

Treating workplace illnesses and injuries may require a variety of health care services. We have partnered with various health care providers to help your injured workers get quick access to the services they need to recover and get back to work.

#### Authorized health care providers

A province-wide network of health care professionals under contract with WCB-Alberta is available to provide services to injured workers. This network ensures injured workers receive timely and appropriate medical treatment without compromising service quality.

#### **Occupational Injury Service**

Occupational Injury Service (OIS) gives injured workers access to a doctor with experience in work-related injuries. Injured workers are typically seen within 30 minutes of arriving at the clinic. The clinics help injured workers return to work quickly and safely by providing expedited care.

#### **Millard Health**

Proudly operated by WCB-Alberta, Millard Health is a leading provider of occupational rehabilitation and disability management services in Alberta. We use a successful model with the right combination of experts to help your injured workers return to work. This approach treats the needs of the whole person physically, psychologically and occupationally.

## **Review and appeals**

We are committed to treating you fairly and to making fair decisions. We want to make sure you understand all the decisions that affect your worker's claim or your account.

We know that sometimes you may not agree with some of our decisions, and we're here to help. It is important that you know your rights when it comes to questioning a decision made on a claim that affects your policy. We will make every attempt to resolve disagreements whenever possible.

#### The Fair Process Review Centre (FPRC)

We're here to help you and will work with you to resolve any fairness concerns you may have with respect to the process of making a decision or the behaviour of the decision maker. If you disagree with the decision, we have a separate process to independently review your concern.

Fairness is assessed in two main categories: procedural and behavioural.

- Procedural fairness looks at how decisions are made.
- Behavioural fairness looks at how you were treated, including whether WCB staff followed the Code of Rights and Conduct.

#### Please give us a call

It is important to us that your concerns are resolved at the earliest opportunity. If your fairness concern relates to your account, we encourage you to call the person who made the account decision. If you feel you have been treated unfairly, we encourage you to call the assigned adjudicator or case manager as soon as possible. You can also ask to speak to a supervisor or manager at any time during your claim.

If this does not resolve your concerns, you can request a formal fairness review by the Fairness Review Officer (FRO) through the Fair Process Review Centre (FPRC).

**Note:** While raising issues with the supervisor or manager is often an effective way to resolve concerns, it is **not a pre-requisite** to accessing support from the FRO and FPRC.

#### What is a fairness review?

Requests for fairness reviews are addressed by the Fair Process Review Centre (FPRC), an independent office within WCB. The FPRC is overseen by a Fairness Review Officer (FRO) who is accountable to the Chair of WCB's Board of Directors. The FRO and the FPRC provide neutral, impartial and independent assistance to employers, workers, and their dependants who feel they were treated unfairly. There is no cost to this service.

#### How to request a fairness review

We encourage you to reach out as soon as possible if you are concerned about fairness so that we can come to a mutually agreed upon resolution. You have 60 days from the event or behaviour that led to your fairness concern to complete the Fairness Review form. You will find this form on our website using the quick search bar under *Resources* > *For Employers* > *Forms and Guides* or you can request a paper version by calling our contact centre at 1-866-922-9221.

If you complete the form after 60 days, the Fairness Review Officer may consider extending the time period, provided there is a reasonable explanation for the delay.

#### Get help from the Employer Appeal Consulting service

If you're unsure how a decision may impact your account, we can help. Our Employer Appeal Consulting service offers assistance with submitting your review request, and will look at the unique situation for your account to help you understand the impact of the decision(s) in question. We'll provide you with information that can help to either resolve the issue or to provide you advice on how to present your position. This service was established by WCB to help employers understand the facts, policies and legislation used to make a decision, with a focus on resolution. There is no charge for this service. To request this service, complete the Request for Employer Appeal Consulting form on our website under *Claims* > *Reviews and appeals* > *For employers*.

#### **Role of the Appeals Commission**

The Appeals Commission for Workers' Compensation is an external appeals body, which is independent from WCB-Alberta. It is the final level of appeal and its decisions are final. The Appeals Commission will, however, reconsider a matter if new information, which might affect a previous decision, is introduced.

#### **Role of the Advisor Office**

If you decide to pursue an appeal after your review, the **Advisor Office** provides independent advice, assistance and advocacy services for eligible employers. There is no charge for their services. You can access this assistance by calling 1-866-427-0115.
# Key terms

#### Claim

The application for compensation under the terms of the *Workers' Compensation Act* and WCB-Alberta policy.

#### Employer

An individual, firm, association, body or corporation that has, or is considered by WCB-Alberta to have, one or more workers in its service.

#### Assessable earnings

The portion of workers' gross earnings on which employers must report and pay WCB-Alberta premiums.

#### Premium

The amount employers pay to WCB-Alberta for workers' compensation coverage or optional personal coverage.

#### Premium rate

The basic rate at which employers can be assessed for workers' compensation coverage based on their industry and claim history.

#### Principal

A person or entity who hires a contractor or subcontractor to perform work or services.

#### Proprietor

An individual operating a business without any workers.

#### Rate group

A grouping of one or more industries with similar activities, claim types and costs per claim. The rate group is the primary level at which premium rates are determined.

#### Subcontractor (contractor)

An individual, partners in a partnership or limited company hired by a principal to perform work or services.

#### Worker

A person who enters into or works under a contract of service or apprenticeship, paid or unpaid, written or oral, express or implied, whether by way of manual labour or otherwise, or considered by WCB-Alberta to be a worker.

# myWCB for Employers

Your gateway to the information and services you need to work with WCB-Alberta

#### https://my.wcb.ab.ca/ess/signup

#### Apply for a WCB-Alberta account

Simply enter your information and we take care of the rest.

#### **Report an injury**

No paperwork, no faxing, quick turn-around.

#### **Obtain your account statistics**

This self-service system allows you to electronically request and receive claim cost history and pricing program reports. At a glance you can see the impact workplace injuries have on your premiums.

#### Obtain a clearance certificate

Hiring someone with their own WCB-Alberta account? You may be liable for any unpaid premiums on your subcontractor's WCB-Alberta account. To avoid this, find out quickly if they maintain a WCB-Alberta account and confirm it is in good standing by obtaining a clearance letter.

#### File your annual return

This system tailors itself to your needs by showing only relevant screens. The built-in error checking and prorating ensure premium rate accuracy. You can also save your work in progress.

#### Pay your premiums

Six options are available for employers to pay premiums.

#### Maintain/close your WCB-Alberta account

Update your mailing address, contact information, assessable earnings and more.

#### Need help with online services?

Email *ebusiness.support@wcb.ab.ca* or call 780-498-7688.

### How to reach us

If you need more information or have questions about the information in this handbook, please call one of the numbers below. **Please have your WCB-Alberta account number ready when you call**.

You can also **request a callback through our** myWCB employer mobile app and someone from WCB will reach out to you within one business day.

#### **Employer Account Services**

Edmonton			
Mailing address	Inquiries		Street address
PO Box 2415	Phone:	780-498-3999	9912-107 Street
Edmonton, AB T5J 2S5	Fax:	780-498-7999	Edmonton, AB T5K 1G5
	Claims fax:	780-427-5863	
	E-mail:	contact.centre@wcb.ab.ca	Access to Information
	Hours:	8 a.m. to 4:30 p.m.,	Phone: 780-498-3999
		Monday through Friday	Fax: 780-498-7867
Calgary			
Mailing address	Inquiries		Street address
DO Pov 2415	Dhono	102 517 6000	150 4211 12 Street N E

PO Box 2415 Edmonton, AB T5J 2S5 **Inquiries** Phone: Fax: Hours:

403-517-6000 403-517-6201 8 a.m. to 4:30 p.m., Monday through Friday

#### **Street address** 150, 4311-12 Street N.E. Calgary, AB T2E 4P9

#### **Toll free**

Inquiries		
Phone within Alberta:	1-866-922-9221 to reach the contact centre or enter the area	
	code and seven digit number of the office you wish to reach	
Phone outside Alberta:	1-800-661-9608	
Fax within Canada:	1-800-661-1993	
Fax outside Canada:	Not available—please fax claims to 780-427-5863	
Hours:	8 a.m. to 4:30 p.m., Monday through Friday	

#### **Millard Health**

131 Airport Road Edmonton, AB T5G 0W6  
 Phone:
 780-498-3200

 Fax:
 780-498-3907

 Hours:
 7 a.m. to 7 p.m., Monday through Thursday 7 a.m. to 5 p.m., Friday



www.wcb.ab.ca

# **STANDATAs**

LEGISLATION

# ELECTRICAL SAFETY Information Bulletin

STANDATA

February 2019

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#### LEGISLATION Safety Codes Act (Administrative Items Regulation)

#### SUBJECT: Reporting of electrical incidents/accidents

#### **REPORTING REQUIRED**

The purpose of this Information Bulletin is to remind industry stakeholders and members of the public in Alberta that all electrical incidents are required to be reported to the Provincial Electrical Administrator.

Under the provisions of Section 59 of the *Safety Codes Act* "if there is an unsafe condition, accident or fire that involves a thing, process or activity to which this Act applies, the owner or person designated in the regulations shall, if required by the regulations, forthwith report it to an Administrator, or to the accredited municipality or accredited regional services commission if the thing, process or activity is under the administration of the accredited municipality or accredited regional services commission."

Section 15 of the Administrative Items Regulation requires that "any person who knows of:

(a) an accident to a person, a fatal accident to livestock or a power line contact involving an electrical installation or electrical equipment, or

(b) a fire of electrical origin or suspected electrical origin must, as soon as practicable, report the accident, contact or fire to an Administrator for the electrical discipline or to a safety codes officer and the safety codes officer must notify an Administrator for the electrical discipline.

#### What needs to be reported?

The Safety Codes Act (SCA) requires that anyone designated by a regulation under the SCA must report any incident or accident that involves anything governed by the SCA. The Administrative Items Regulation defines the "person designated in the regulations" as "any person who knows of" any electrical incident or accident.

The Administrative Items Regulation further defines an incident or accident to be any of the following:

- an accident to a person
- a fatal accident to livestock
- a power line contact involving an electrical installation or electrical equipment
- a fire of electrical origin

Issue of this STANDATA is authorized by the Provincial Electrical Administrator

[Original Signed] Clarence C. Cormier, P.Eng.

Government

Alberta Municipal Affairs – Community & Technical Support, 16<sup>th</sup> Floor, 10155 – 102 Street, Edmonton, Alberta, Canada, T5J 4L4 Phone: 1-866-421-6929 Email: <u>safety.services@gov.ab.ca</u> Website: <u>www.municipalaffairs.alberta.ca</u>

#### What is an accident to a person?

In the electrical discipline an accident to a person means any situation where a person has contacted a live electrical part, whether that electrical contact causes death, injury or no damage to the person(s) involved. All contacts between people and any live electrical parts are considered to be a reportable incident under the *Safety Codes Act*.

#### What is a fatal accident to livestock?

In the electrical discipline a fatal accident to livestock means any situation where a domesticated animal has been killed as a result of contact with a live electrical part.

#### What is a powerline contact?

In the electrical discipline a powerline contact is any situation where a person or piece of equipment has contacted any part of an overhead or underground electrical circuit. This contact may involve the conductors, the supporting structures for the conductors or any other piece of electrical equipment involved in transmitting electricity such as (but not limited to): poles, light standards, guy wires, transformers, switching devices and overhead or underground lines.

#### What is a fire of electrical origin?

In the electrical discipline a fire of electrical origin occurs when the source of the fire is a consequence of the failure of an electrical appliance or circuit.

#### What does "any person who knows of" actually mean?

The Administrative Items Regulation states that anyone who has knowledge of an electrical incident must report that incident, unless that person knows (or has reasonable grounds to believe) that the incident has already been reported by another person. The phrase "any person" means that no person in the Province of Alberta is exempt from this requirement.

Some examples include (but are not limited to):

- a health care professional treating a person for electrical burns in an emergency room is required to report the incident which caused the electrical injury
- a police officer investigating a traffic accident where a car has knocked down a wooden power line support is required to report the incident
- a construction worker who witnesses a colleague receive a shock from a hand-held electrical tool is required to report the incident even if the effected worker is not injured

#### Are there any consequences for not reporting an incident?

Section 67 of the SCA states that "a person who fails to prepare, submit or retain any information that the person is required by this Act to prepare, submit or retain is guilty of an offence."

The penalties for offences under the SCA have recently increased to a maximum of \$100,000.00 for the first offence and an additional \$1,000.00 per day for a continuing offence. In addition; subsequent offences carry a maximum fine of \$500,000.00 and an additional \$1,000.00 per day for continuing offences.

#### How are incidents or accidents to be reported?

Municipal Affairs has developed a standard form for use in reporting incidents. This form is available as a fillable pdf document for download at: <u>http://www.municipalaffairs.alberta.ca/documents/IncidentOccurrenceReportFormFillable-</u>2016.pdf



Municipal Affairs staff members are available to assist with the completion of this form. Staff can be reached by telephone at 1-866-421-6929 or by email at <u>safety.services@gov.ab.ca</u>.

#### What is the purpose of an incident/accident report?

The data from the reports is collected by Municipal Affairs for several reasons.

The data is used to produce an annual report of electrical incidents which is made available to the public. Reports are available online at:

http://www.municipalaffairs.alberta.ca/cp\_electrical\_forms\_and\_reports.cfm

The data is also used to review the requirements for electrical installations in Alberta; occasionally changes in the national or provincial Codes and Standards are brought about as a result of incidents that are reported by Albertans.

The data can also be used to warn other provinces of unapproved products that have caused incidents in Alberta.

The data can also used by training facilities for trades people in order to give students up-todate information on acceptable practices and problems that result from incorrect installations.

No personally identifying information is ever released to anyone outside of the Ministry of Municipal Affairs, unless the release of this information is required by law.

STANDATA

July 2015

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#### LEGISLATION Permit Regulation

# SUBJECT:General – Permit Regulation, Communication Systems and Travelling<br/>Carnival, Entertainment and Show Facilities

#### Permit Regulation

The *Permit Regulation AR 204/2007<sup>1</sup>* came into force on April 1, 2008. This document mandates "Required Permits", "Permit Eligibility", and "Conditions" for obtaining a permit as well as "Administrative" requirements for permits.

A permit:

- provides the owner with access to expert advice before costly mistakes are made;
- provides the owner with a record of having done their due diligence to comply with the codes and standards;
- informs the jurisdiction with the responsibility for administering the *Safety Codes Act<sup>1</sup>* that the project is taking place;
- provides the additional oversight at the early stages of a project through services such as plans or design review; and
- initiates an inspection process by a trained and certified safety codes officer.

#### **Communication Systems**

Communication circuits are audio, video or data circuits. These systems are exempt from requiring a permit.

Even though a permit is not required for communication systems, the systems must still meet the requirements of the Canadian Electrical Code (section 60) and the Safety Codes Act (SCA). Owners are responsible for the care and control of communication systems on their side of the connection point between the customer and the utility, including making sure they comply with the relevant sections of the Canadian Electrical Code.

<sup>1</sup> Copies of the noted Acts and Regulations are available from Alberta Queen's Printer: Main Floor, Park Plaza 10611 – 98<sup>th</sup> Avenue Edmonton, AB T5K 2P7 Phone: 780 427-4952 Web Site: <u>http://www.qp.alberta.ca/index.cfm</u>



Issue of this STANDATA is authorized by The Chief Electrical Administrator



[Original Signed] Clarence C. Cormier, P.Eng.



#### **Travelling Carnival, Entertainment and Show Facilities**

#### **Problem to be addressed:**

The amusement ride industry in Alberta is concerned that the cost imposed by frequent inspections on a facility as it travels within Alberta is unwarranted. Part 1 of the *Safety Codes Act* defines the responsibilities for owners/operators of such facilities. By fulfilling that responsibility, the safety of Albertans can be assured without imposing undue cost.

The facilities involved, including their power supply and distribution systems, are those that travel between inspection jurisdictions within the province and may or may not have evidence of inspection and approval by a recognized certification organization.

Those facilities intended to be set up for a local show and not relocated to another jurisdiction do not fall within this policy. Similarly those facilities governed by the amusement ride standards are the responsibility of the Alberta Elevating Devices and Amusement Ride Association and do not fall within this policy.

#### **Policy Statement:**

Owners of travelling carnival, entertainment and show facilities touring Alberta must be able to demonstrate evidence of inspection in the form of:

- an authorized label of an accredited certification organization<sup>1</sup>, or
- an inspection report, issued within the current year by a safety codes officer designated the power to perform inspections under the Safety Codes Act.

Sponsoring organizations must ensure that owners of these facilities can demonstrate evidence of inspection and adequate maintenance procedures. Sponsoring organizations are to report to the inspection authority where this evidence cannot be produced or where there is an identified safety concern.

#### **Process:**

Once travelling carnival, entertainment or show facilities enter a community, the sponsoring organization will determine if the owners have evidence of inspection and if there are no obvious safety concerns.

The sponsoring organization will notify the inspection authority when they identify safety concerns. The inspection authority will determine whether further inspections are required. Owners must comply with the Safety Codes Act before they operate their facilities.

#### **Responsibilities:**

#### Owner's Responsibility

Sections 5 through 9 of the Safety Codes Act outline the responsibilities or duties of the various persons involved. An owner is responsible;

- to ensure that facilities under its care and control are safe from electrical hazards,
- to ensure the facility bears evidence of inspection in the form of:
  an authorized label of an accredited certification organization<sup>1</sup>, or
  an inspection report, issued within the current year by a safety codes officer designated the power to perform inspections under the Safety Codes Act,
- to ensure that it is available for review by a safety codes officer or the sponsoring organization, and
- to ensure the facility is maintained in a manner that provides for continued safety.

#### Sponsoring Organization's Responsibility

By nature of the relationship between the owner of the facility covered by this policy and the sponsoring organization, the sponsor shares the responsibility for safety with the owner. In most cases, the sponsor will be obtaining the services of a contractor to install electrical systems, or to ensure local facilities are ready for use. This person is already on site and can visually check for 'evidence of inspection' on all of the travelling facilities and note any obvious safety concerns that may be present. The sponsoring organization is responsible:

- to ensure all local facilities comply with the Act,
- to ensure all travelling facilities bear evidence of inspection and there are no obvious hazards present,
- to ensure that facilities that do not have evidence of inspection or that show possible safety concerns are inspected by the inspection authority before they are connected to the power supply, and
- to ensure that the power supply, if a generator, and the distribution system used for the facilities are installed in a safe manner.

Inspection Authority's Responsibility:

- Work with the sponsoring organization to ensure that this policy is implemented.
- Provide inspections when required to address an identified safety concern or to provide a facility with evidence of inspection.

<sup>&</sup>lt;sup>1</sup> Please see STANDATA LEG-ECR-2 for information on accredited certification organizations

### ELECTRICAL SAFETY Information Bulletin

STANDATA

October 2017

LEG-ECR-2 [rev 25] Page 1 of 1

#### LEGISLATION Electrical Code Regulation

#### SUBJECT: Section 2 - Electrical Systems Equipment

#### Definition

Rule 2-024 of the Canadian Electrical Code (CE Code) requires that electrical equipment be approved. The CE Code defines "approved" in Section 0.

In Alberta, section 2 of the *Electrical Code Regulation* prescribes the conditions for the use of equipment related to electrical systems and applies these requirements to the term "approved" as referenced in the Code. Section 2 of the *Electrical Code Regulation* reads as follows:

- 2(1) If a code, standard or body of rules declared in force under the Act with respect to electrical systems requires approved equipment, that equipment must meet the requirements of this section.
- (2) No person shall manufacture, install, sell or offer for sale any equipment related to electrical systems for use in Alberta unless the equipment has been
  - (a) certified by a certification body in accordance with the certification body's terms of accreditation with Standards Council of Canada, or
  - (b) inspected by an inspection body in accordance with the inspection body's terms of accreditation with Standards Council of Canada
- (3) Subsection (2) does not apply to electrical equipment of an electric distribution system or transmission lines as defined in the *Hydro and Electric Energy Act*.

The regulation defines "certification body" and "inspection body" as follows:

"certification body" means an organization accredited by the Standards Council of Canada as a certification body.

"inspection body" means an organization accredited by the Standards Council of Canada as an inspection body.

Products certified by an accredited certification body are approved; also, products deemed acceptable by an inspection body through a field evaluation process, such as SPE-1000, or SPE-3000 for medical equipment, are also approved.

A directory of certification bodies and inspection bodies and their respective scope of accreditation can be found on the Standards Council of Canada's website at:

Certification:

www.scc.ca/en/accreditation/product-process-and-service-certification/directory-of-accredited-clients

#### Inspection:

www.scc.ca/en/accreditation/inspection-bodies/directory-of-accredited-clients

Issue of this STANDATA is authorized by the Electrical Administrator

Alberta

[Original Signed] Clarence C. Cormier, P.Eng.

> Alberta Municipal Affairs – Community & Technical Support, 16<sup>th</sup> Floor, 10155 –102<sup>nd</sup> Street, Edmonton, Alberta, Canada, T5J 4L4 Phone: 1-866-421-6929 Email: <u>safety.services@gov.ab.ca</u> Website: <u>www.municipalaffairs.alberta.ca</u>

# **STANDATAs**

# ELECTRICAL

# Updates to February 2022



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#### **INTRODUCTION**

Electrical STANDATAs provide interpretation, clarifications, and recommended practices pertaining to legislation, codes, and standards under the Safety Codes Act. It is important to note that information provided in STANDATA is not regulation and that you should consult current legislation along with adopted codes and standards for the purposes of applying the law.

The following are Bulletins, Interpretations, and Variances regarding the 2021 Canadian Electrical Code Part 1, as on February 2022. Keep current, subscribe: <u>Electrical STANDATA | Alberta.ca</u>

#### **Bulletins**

- 21-ECB-000 Section 0 Object, scope, and definitions
- 21-ECB-002 Section 2 General rules
- 21-ECB-004 Section 4 Conductors
- 21-ECB-006 Section 6 Services and service equipment
- 21-ECB-008 Section 8 Circuit loading and demand factors
- 21-ECB-010 Section 10 Grounding and bonding
- 21-ECB-012 Section 12 Wiring methods
- 21-ECB-016 Section 16 Class 1 and Class 2 circuits
- 21-ECB-018 Section 18 Hazardous locations

21-ECB-020 - Section 20 — Flammable liquid and gasoline dispensing, service stations, garages, bulk storage plants, finishing processes, and aircraft hangars

- 21-ECB-024 Section 24 Patient care areas
- 21-ECB-026 Section 26 Installation of electrical equipment
- 21-ECB-028 Section 28 Motors and generators
- 21-ECB-030 Section 30 Installation of lighting equipment
- 21-ECB-032 Section 32 Hire alarm systems, smoke alarms, carbon monoxide alarms, and fire pumps
- 21-ECB-036 Section 36 High-voltage installations
- 21-ECB-060 Section 60 Electrical communication systems
- 21-ECB-062 Section 62 Fixed electric heating systems
- 21-ECB-068 Section 68 Pools, tubs, and spas
- 21-ECB-076 Section 76 Temporary wiring

#### Interpretations

21-ECI-046 - Section 46 — Emergency power supply, unit equipment, exit signs, and life safety systems

- 21-ECI-064 Section 64 Renewable energy systems
- 21-ECI-084 Section 84 Interconnection of electric power production sources
- 21-ECI-086 Section 86 Electric vehicle charging systems
- 18-CECI-007 Existing elevator modernization/fire alarm interface
- 18-CECI-009 Existing fire alarm systems
- 18-ECI-009 Lightning protection systems

Mobile/temporary cooking equipment

#### Variances

21-ECV-002-2-024-MMTE - Rule 2-024 — Use of approved equipment – meter mounted transfer equipment

21-ECV-006-112 - Rule 6-112 — Support for the attachment of overhead supply or consumer's service conductors or cables

21-ECV-018-150 - Rules 18-150 and J18-150 — Equipment in classified areas

21-ECV-064-216 - Rule 64-216 — Arc-fault protection requirements for ground-mounted solar photovoltaic systems

21-ECV-064-218 - Rule 64-218 — Photovoltaic rapid shutdown

More on variances (videos, forms, appeals)

# BULLETINS

### **STANDATA bulletin 21-ECB-000**

Electrical

#### 2021 Canadian Electrical Code, Part I, Section 0 - Object, scope, and definitions

Date Issued: 1 February 2022

Page 1 of 2

#### Purpose

This clarifies how code updates impact existing electrical installations.

#### Discussion

Generally, an existing installation in compliance with the code(s) in force at the time of the installation does not require upgrading to meet the requirements of the new code edition.

However, where an existing installation is deemed to pose an unacceptable risk, despite having met the requirements in force at the time it was constructed, new legislation may be introduced to mandate that the installation be brought to current code requirements. For example, a mandate was issued in the late 1970s that smoke alarms be installed retroactively in all homes – old and new.

Modifications to an existing installation that introduce changes to its characteristics may require that part or all of the installation be made to comply with the code in force at the time the modifications are made. This should be discussed with the Authority Having Jurisdiction (AHJ) prior to design/construction.

#### Street Lighting and Primary Metered Installations

Supply authorities have traditionally installed, operated and maintained street-lighting and high voltage distribution facilities. Due to deregulation, some supply authorities have divested themselves of the street-lighting portion of their operations or allowed for the primary metering of high voltage distribution systems. Other organizations, such as municipal and/or provincial transportation departments, are taking over these installations. It is not always clear which electrical code applies, the Canadian Electrical Code (CE Code), Part I or the Alberta Electrical Utility Code (AEUC).

In Alberta, two electrical codes are adopted and in force:

Unless stated otherwise, all Code references in this STANDATA are to the Canadian Electrical Code, Part 1, 2021.

Issued by the Provincial Electrical Administrator

[Original Signed] Clarence C. Cormier, P.Eng.

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- The CE Code, Part I for use by other than the supply authority in the exercise of its function as an electric utility;
- The Alberta Electrical Utility Code, which indirectly adopts the Canadian Electrical Code, Part III, Numbers 1 and 7 with amendments, for use by the supply authority in the exercise of its function as an electric utility.

Ownership notwithstanding, if the street lighting installation or primary metered distribution system is under the care and control of the supply authority, it shall meet the requirements of the AEUC. If, however, these installations are under the care and control of an organization other than the supply authority, they shall meet the requirements of the CE Code, Part I.

Accredited corporations authorized to provide services under both the CE Code, Part I and the AEUC may do so according to the applicable scope.

#### Disclaimer:

The information in this bulletin is not intended to provide professional design advice. If professional expertise is required with respect to a specific issue or circumstance, the services of a professional should be sought.



# **STANDATA bulletin 21-ECB-002**

Electrical

#### 2021 Canadian Electrical Code, Part I, Section 2 - General rules

Date Issued: 1 February 2022

Page 1 of 10

#### Purpose

This clarifies how to apply the general rules in Section 2 of the Canadian Electrical Code, Part I.

#### Discussion

The Safety Codes Act and associated regulations, supplemented by the policies of Alberta Municipal Affairs, the Safety Codes Council and accredited organizations, detail Alberta's administrative requirements for enforcing the Canadian Electrical Code, Part I (CE Code). Accordingly, because legislation is paramount, the administrative rules of the CE Code will generally not apply.

The rationale and intent for the administrative rules (rules 2-000 to 2-032) of the CE Code is to provide a guide for authorities in developing their administrative requirements to enforce the Code (see latest edition of the CE Code Handbook). Where a regulatory authority has established administrative requirements through legislation, they supersede and render inoperative the administrative requirements in a code.

Following is an accounting of how Alberta legislation affects the administrative rules in the CE Code:

#### Rule 2-000 Authority for rules

The *Electrical Code Regulation* is the legislation through which electrical codes are adopted in Alberta.

#### **Rule 2-002 Special requirements**

This is an information statement on the relationship between the supplementary and amendatory sections of the Code and the general requirements of the Code.

#### Rule 2-004 Permit

Unless stated otherwise, all Code references in this STANDATA are to the Canadian Electrical Code, Part 1, 2021.

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The *Permit Regulation* supersedes this rule. Part 1 of the regulation sets the requirements to whom permits may be issued and under what conditions, as well as where permits are required throughout the province. Part 2 sets the requirements for administration of the *Permit Regulation*.

#### **Rule 2-006 Application for inspection**

This rule refers the user to the "inspection department". In Alberta, the permit has traditionally been used for this purpose, but an Authority Having Jurisdiction (AHJ) may set its own requirements for a separate 'application for inspection' form.

#### Rule 2-008 Fees

This rule refers the user to the "inspection department". Each AHJ is responsible for setting its own fee structure.

#### **Rule 2-010 Posting of permit**

The *Permit Regulation* supersedes this rule. The absence of a requirement to post an electrical permit in the *Permit Regulation* allows AHJs the ability to address the requirement through bylaw or policy.

#### **Rule 2-012 Notification of inspection**

The AHJs in Alberta sets inspection requirements through bylaw or policy. That policy will define whether they require notification for inspection.

#### **Rule 2-014 Plans and specifications**

This rule refers the user to the "inspection department". The AHJ may set its own requirements around "plans and specifications" through policy.

#### **Rule 2-016 Current-permits**

The Alberta Electrical Utility Code (AEUC) requires that a supply authority obtain a copy of the permit before service connection. The local AHJ may require additional information before allowing an installation to be energized.

#### **Rule 2-020 Reinspection**

The AHJ may set their own requirement.

#### Rule 2-022 Renovation of existing installations

The AHJ may set their own requirement.

#### Rule 2-024 Use of approved equipment

This rule mandates the use of approved equipment and is more of a technical requirement than an administrative one. The term approved, as suggested in the definitions of the CE Code, is otherwise defined by the *Electrical Code Regulation*. It sets the conditions for use of any equipment related to electrical systems in Alberta.

#### Minor equipment alterations

Minor modifications to electrical equipment such as when adding certified devices or kits (i.e., indicating lights, control switches, or monitoring devices, etc.) would not generally require that the equipment be re-certified. The devices must be suitable for the application and approved for use with the particular piece of equipment.

Modifications falling outside these parameters should be re-evaluated for safety through Special Inspection by an accredited inspection body or Field Certification by a certification body.

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Concern has been expressed about the installation of devices into certified electrical distribution and control equipment for the purpose of metering. Often these are installed in larger capacity installations in either existing installations or at the initial construction stage. Industry is reminded that any alterations of certified equipment may void the original certification.

Where metering devices (revenue or energy management) are to be incorporated in a new installation, the equipment must form part of an approved switchgear assembly constructed by the manufacturer of the switchgear, or be installed in separate enclosures connected to the switchgear by recognized wiring methods. Where it is proposed to add metering devices (revenue or energy management) to an existing installation, approved devices are to be used and the AHJ should be contacted prior to the installation to determine the acceptability of the proposed modifications.

#### Appendix A

Appendix A of the CE Code lists Standards used to certify electrical equipment for the purpose of being "Approved" as defined in Section 0 of the CE Code and the *Electrical Code Regulation*.

Beginning with the 25<sup>th</sup> Edition of the CE Code, and to keep the list of safety standards for electrical equipment current, the following Appendix A annexes have now been moved online:

a) Annex A.1 — CSA Canadian Electrical Code, Part II Safety Standards for Electrical Equipment; and

b) Annex A.2 — Other Canadian Safety Standards for Electrical Equipment.

To view the latest versions of these annexes, visit <u>https://community.csagroup.org/community/electrical/electrical-installation-and-maintenance-canadian-electrical-code-pt-i/appendix-a-canadian-electrical-code-part-i</u>

#### Misapplication of Approval Marks or Labels

The application of an electrical approval identifier (Certification Mark or Field Evaluation Label) on industrial structures or buildings has become increasingly apparent. Structures or buildings are not generally considered as "electrical equipment" and therefore, careful consideration should be given before requesting or accepting an approval marking.

Like manufactured homes or mobile homes, industrial buildings may be eligible for an overall approval in accordance with Canadian Standards Association (CSA) A277 Procedure for factory certification of buildings. Such approvals take into consideration safety codes compliance for all disciplines (building, electrical, gas, and plumbing).

Manufactured homes, prefabricated buildings, modules, and panels certified to CSA A277 Procedure for certification of prefabricated buildings, modules, and panels may have an overall certification with a marking that is distinct from an 'electrical approval mark'. The certifications are an overall assessment of the structure for compliance to structural and installation requirements of the associated disciplines, including electrical.

Individual electrical products (electrical equipment) are interconnected with wiring to form an electrical installation on or in a structure or building. Each individual piece of electrical equipment is required to be approved. The interconnection of that equipment forms an electrical installation that is required to comply with the installation requirements of the CE Code.

To recognize if the electrical approval identifier has been properly applied, it is important that we make the distinction between what constitutes 'electrical equipment' and what constitutes an 'electrical installation'. These are defined terms in the CE Code, Part I, Section 0.

In short, an electrical installation is the interconnection of approved electrical equipment. The Appendix B note for the term "Approved" provides further clarification in this regard by stating that approved electrical equipment is certified to product standards listed in Appendix A. The Appendix B note also describes the field evaluation process for approval whereby electrical equipment (with some exceptions) that has not been subject to a

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certification program can be evaluated for conformance to the CSA Model Code SPE-1000 (note: the SPE-1000 sets limitations on the types of electrical equipment that the field evaluation process can be applied to, e.g. equipment rated for use in hazardous locations is not included).

A structure or building may have an electrical installation comprised of the interconnection of electrical equipment but in and of itself may not be electrical equipment.

Verification of the electrical installation for compliance to the CE Code, which includes verification that all the electrical equipment forming part of the installation is approved, is the responsibility of the electrical inspection AHJ in the location where the building or structure will be used.

It should be noted that some assemblies of mechanical and electrical equipment such as air compressors, lube oil packages (skids) and similar equipment may be eligible for an approval marking if they have been evaluated by a certification body or special inspection body in accordance with the corresponding applicable standard(s). For these types of equipment, the certification standards prescribe the requirements for the exposed wiring or make a normative reference to the CE Code.

The certification body or special inspection body is meant to work together with the AHJ as part of the regulatory process in Alberta. Restricting the access of a safety codes officer (SCO) to electrical components, equipment, or installations is a direct violation of Section 34 of the *Safety Codes Act*.

#### Unapproved Baby Spa Equipment

There have been reports of unapproved baby spa equipment (hydrotherapy tubs or pools, etc.) being sold and used in Canada. Please ensure that only approved baby spa equipment is sold or used.

Field evaluations will not be accepted in Alberta for unapproved baby spa equipment and similar products unless already certified to the Underwriters' Laboratories (UL) 1563 Standard (Standard for Electric Spas, Equipment Assemblies, and Associated Equipment) for the US market.

#### Rule 2-028 Availability of work for inspection

The local AHJ may set their own requirement.

#### **Rule 2-030 Deviation or postponement**

Section 38, of the *Safety Codes Act* outlines provisions for allowing a variance. A deviation or postponement is considered a variance. Section 38 of the *Safety Codes Act* reads as follows:

- 38 1) An Administrator or a safety codes officer may issue a written variance with respect to any thing, process or activity to which this Act applies if the Administrator or officer is of the opinion that the variance provides approximately equivalent or greater safety performance with respect to persons and property as that provided for by this Act.
  - 2) An Administrator or a safety codes officer may include terms and conditions in the variance.
  - 3) A safety codes officer on issuing a variance shall notify an Administrator.
  - 4) The *Regulations Act* does not apply to variances issued under this section.

Where any rule in the CE Code is varied, or where a particular rule in the CE Code requires 'special permission' by referencing Rule 2-030, section 38 of the *Safety Codes Act* applies. Where safety performance is not a factor, the Administrator or SCO may choose to not issue a variance. Regardless of whether a variance is issued, owners, designers, manufacturers, contractors, and vendors (as specified in Part 1 of the *Safety Codes Act*) are responsible for ensuring that a thing, process or activity under their care and control is safe.

**NOTE:** See **Notice: Variances under the Safety Codes Act [2019]** for Guidelines on Variances Issued by a Safety Codes Officer. open.alberta.ca/publications/notice-variances-under-the-safety-codes-act-2019

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#### Rule 2-032 Damage and interference

#### Electrical equipment that has been exposed to ingress of water

Rule 2-032 3) requires that electrical equipment that has been exposed to the ingress of water be subjected to evaluation to ascertain whether or not the equipment may be placed back into service. Electrical equipment may be damaged by exposure to water through flooding, fire-fighting activities, storms, and other events. The Appendix B Note to Rule 2-032 3) states that the equipment should be evaluated by an organization acceptable to the AHJ for compliance with the applicable standards to which the equipment was originally approved. The Appendix B Note goes on to list resources that may be consulted when performing such an evaluation. It is important to note that this list is not exhaustive. The following graphic provides guidance when deciding whether to replace or recondition electrical equipment that has been subjected to the ingress of water:

#### **Replace or Recondition?**

#### Water Exposed Electrical Equipment

Water and electricity do not mix; Follow this guide to quickly see what electrical equipment exposed to water ingress should be replaced and what equipment may be reconditioned.

Any electrical equipment exposed to water ingress, even if thoroughly dried, may pose serious long-term safety and fire risk if not properly reconditioned

Returning power to water damaged electrical equipment without proper evaluation could result in

fire or shock.

#### Water Damaged Electrical Equipment

May be Reconditioned X Should be replaced Arc-Fault and Ground-Х Panelboards Fault Circuit Interrupters see NEMA Standard: PB 1.1-2013 Х Х **Batteries** Receptacles Х High Voltage AC Circuit Signaling, Protection and -0 Breakers **Communication Systems** Х Lighting, Ballasts and LED Х Surge Protective Devices Drivers Switchboards Х Low and Medium Voltage Fuses See NEMA Standard: PB 2.1-2013 Low and Medium Voltage Switches and Dimmers Х Switchgear

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Low Voltage Power Circuit Interrupters

Molded Case Circuit

Rotating Machines

EASA AR100

see Standard ANSI/IEEE 43-2013, A2 & A3, ANSI

Breakers



Х

Transformers All Dry Type, Х Control Circuit, Liquid Filled, Cast Resin

Х Uninterruptable Power Supply

Wire or Cable for dry areas X

Outlet and Junction Boxes Х see NEMA standard OS 1-2008



Wire or Cable for wet areas that have not been damaged or ends exposed



For more information, please see "Evaluating Water-Damaged Electrical Equipment" published by the National Electrical Manufacturers Association (NEMA): https://www.nema.org/standards/view/evaluating-water-damaged-electrical-equipment

For detailed information on administrative requirements, contact the AHJ in your area or contact the Technical and Corporate Services Division at 1-866-421-6929 or e-mail safety.services@gov.ab.ca.

#### Technical

#### **Rule 2-100 Marking of equipment**

#### Factory-built structures (skid units) - definition

The term "skid", "relocatable structure" and "module" are used interchangeably to refer to a factory-built structure intended for relocation to a site either as a temporary or as a permanent facility. As a large percentage of these units are installed in a permanent manner, the term "relocatable" becomes redundant. The term "factory-built structure" should be used and is defined as follows:

Factory-built structure — a collection of elements such as buildings, process equipment and electrical equipment interconnected together into a pre-manufactured product intended to be transported to a site separate from the fabrication facility and installed either temporarily (relocatable) or permanently (non-relocatable) at that site.

Factory-built structures require adequate information for end-users and for the AHJ to facilitate verification of compliance to codes, standards, drawings and specifications. This information is divided into 2 groups, "nameplate data" and "documentation".

#### Nameplate Data

- 1. Nameplate requirements for non-relocatable factory built structures (intended/designed for permanent foundations, includes modules)
  - a. Minimum requirements on the Nameplate: Manufacturer's Name (or Identification Means), Date of Manufacture, ID of the "Structure" (i.e. a basic Description).
  - b. All the "Documentation" items 1 through 4 below need to be available within the user's document control system or provided with the unit.

(Note: this documentation may be included on the Nameplate, or may be provided via separate documentation such as Drawings, Specifications, Reports, and Manuals readily available for the Installer, Inspector, Operator, Maintainer, and Designer, or a combination)

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- 2. Nameplate requirement for relocatable factory built structures
  - a. Minimum nameplate requirements as per CE Code Rule 70-128, and;
  - Indication of wiring methods used as per the CE Code (e.g. Zone, Group, Temperature Code, etc.)
  - c. All the "Documentation" items 1 through 4 below need to be provided with the unit.

(Note: It may be included on the Nameplate, or may be located with the structure as it moves (i.e., self contained) via separate documentation such as Drawings, Specifications, Reports, and Manuals readily available for the Installer, Inspector, Operator, Maintainer, and Designer, or a combination)



#### **Documentation**

The following documentation on a factory-built structure must be readily available by having it permanently attached to the structure and/or located within the user's document control system:

- 1. Site installations instructions (e.g. drawings and specifications)
  - a. Electrical ratings as applicable to enable a safe installation at the site, such as voltage, amperage, power consumption, etc.
  - b. In more complex situations, detailed information on schematic, wiring, single line, riser or similar drawings will be required and may be integrated into the site's overall document control system.
  - c. If the factory-built structure is "permanent (or non-relocatable)", the documentation should be integrated into the overall site electrical documentation.
  - d. If the factory-built structure is "temporary (or relocatable)", the documentation needs to be retained, readily available, and located with the structure as it moves (i.e. self contained).
- 2. Sufficient information to verify compliance to electrical codes and standards:
  - a. If a hazardous area exists, then a hazardous area classification must be performed and documented by a qualified engineering professional. All skid electrical equipment and wiring must be rated to meet the skid and site hazardous area classification requirements, including, but not limited to, zone, group, and temperature code.
  - b. Environmental data as applicable, e.g. temperature min/max, indoor/outdoor, underground/wet.
- 3. Approval
  - a. If a factory or fabrication shop approval (certification agency, special inspection body or inspection authority) has been performed, then evidence needs to be provided (e.g. certification reports complete with approval labels, or inspection reports complete with appropriate identification such as an inspection label or permanent tag).
- 4. Manufacturers Name (or Identification Means), Date of Manufacture, ID of the "Structure", i.e. a basic Description.

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#### Additional responsibilities

1. Responsibility for maintenance, alterations or modifications of the factory-built structure are under the care and control of the owner as per the definition of 'owner' within the *Safety Codes Act:* 

"owner" includes a lessee, a person in charge, a person who has care and control and a person who holds out that the person has the powers and authority of ownership or who for the time being exercises the powers and authority of ownership;

- 2. The original documentation as outlined above needs to be maintained.
- 3. Any changes to the structure need to have the documentation updated, which then becomes the new "Documentation" for the structure:
  - a. if an accredited corporation, follow their Quality Management Plan (QMP) process; or
  - b. if other than an accredited corporation, work needs to be by 'permit' and therefore re-inspected, or reapproved (if previously certified or Special Inspection).
- 4. Maintenance follow standard practices CE Code rules, maintenance instructions, etc.

#### **Rule 2-106 Rebuilt equipment**

#### Repair of motors and generators for use in hazardous locations

Electrical equipment in Alberta must be approved. Approval is usually through certification by a body accredited by the Standards Council of Canada. Repairs to certified equipment, if not done properly, may void certification. Rule 2-106 requires repair work of electrical equipment to be done to the applicable Canadian standards.

To preserve equipment certification, repairs that can potentially alter the ratings, characteristics or integrity of the equipment must be done by the manufacturer or by a qualified facility. A "qualified facility" is one that meets the requirements of a certification body for carrying out such repairs.

In situations of routine maintenance where the ratings, characteristics and integrity of the equipment are not affected, owners are responsible for ensuring that trained persons using proper tools, materials, and applicable standards do the work.

To maintain the integrity of the equipment and of the certification mark for all types of repairs, the manufacturer and the certification body should be consulted for advice.

#### Retrofitting luminaires for energy conservation or similar programs

As indicated above, repairs or alterations to certified equipment, if not done properly, may void certification. The following guideline is recommended to facilitate the process of modifying luminaires for energy conservation purposes and intended for luminaires located in non-hazardous locations.

• REMOVED FOR MODIFICATION

When all luminaires are removed from the ceiling and modified either on site or at a remote location, these locations can be termed a 'defined factory location'. The luminaires are eligible for re-inspection and labelling through equipment approval procedures, by an acceptable certification body.

IN-SITU MODIFICATION

It may be more practicable to modify the luminaires without removing them from the ceiling. In this case, the following procedure is recommended:

- A detailed description of the intended modification for each model of luminaire is to be submitted for an evaluation by the certification body whose mark appears on the product. The certification body should be able to confirm that the intended procedure for modifying each model of luminaire is acceptable.
- A suitable label showing the following information is to be placed on each luminaire:

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- (a) Identification of the party responsible for the modifications
- (b) New electrical ratings
- (c) New bulb type and size (if applicable)
- (d) Date code
- (e) Reference to the certification body's file number

Please contact the local AHJ to obtain the required permits.

#### Rule 2-200 General

#### Protection of automobile heater receptacles and electric vehicle supply equipment (EVSE)

Electrical installations must have adequate protection from mechanical damage. You can reduce the risk of damage by installing the equipment in such a way that it is protected by location or by providing mechanical protection.

- <u>Protection by location</u> can be achieved by installing the equipment on structures of adequate strength (i.e., fences, walls, etc.). You should also ensure that the equipment is located in such a way that it is not subject to accidental damage from vehicles. (e.g., minimum 750 millimetres above grade, on the side of a guard-rail not subject to damage by vehicles, etc.)
- <u>Mechanical protection</u> for freestanding equipment can be provided in a number of ways, the most common being wheel stops and reinforced concrete posts.
  - Wheel stops should be 150 millimetres wide by 150 millimetres high and located not less than 900 millimetres from the equipment. They should be properly secured using 16 millimetre rods driven 300 millimetres into the parking surface or 16 millimetre bolts set into a concrete slab.
  - Reinforced concrete posts should be no less than 300 millimetres in diameter with the equipment:
    - (a) mounted on the face of the post opposite the vehicle; or
    - (b) cast into concrete posts with the equipment no less than 750 millimetres above grade where facing the vehicles; or
    - (c) mounted on rigid conduit extending beyond the top of the concrete post allowing for the installation of the equipment.
- To ensure an acceptable installation, consult with the AHJ before proceeding.

#### Rule 2-302 Maintenance in hazardous locations

#### Multi-wire circuits

Rule 2-302 redirects the reader to Rule 18-010. Rule 18-010 prohibits unauthorized repairs or alterations on any live equipment in hazardous locations. Extra precautions must be taken in situations where there is an intention to work on equipment supplied from an overcurrent device on one phase of a multi-wire circuit as permitted by Rule 14-010. Although the device for the phase supplying the equipment can be opened, the neutral conductor can potentially carry current from other phases of the same multi-wire circuit and is considered live unless <u>all</u> phases of that multi-wire circuit are de-energized.

Persons conducting repairs or maintenance on these types of circuits in hazardous locations are cautioned to deenergize <u>all</u> phases of a multi-wire circuit supplying equipment despite the equipment being only connected to one phase.

#### **Rule 2-304 Disconnection**

As in Rule 2-302 above, the same precautions should be observed for working on equipment in non-hazardous locations.

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#### Testing of protective equipment

Protective equipment should be certified, maintained, and tested to industry recognized standards and the manufacturer's instructions. For further information regarding protective equipment, contact Occupational Health and Safety.

#### Rule 2-306 Shock and arc flash protection

Below is an example of a label that meets the minimum requirements of field marking electrical equipment as per Rule 2-306. Additional marking for shock and arc flash protection is beyond the requirements of the CE Code.



Example – Simple Label that is Compliant with Rule 2-306

#### Rule 2-328 Electrical equipment near combustible gas equipment

Rule 2-328 instructs the Code user to refer to CSA B149 (Natural Gas and Propane Installation Codes) to determine the correct clearance distance between arc-producing electrical equipment and a combustible gas relief device or vent. The Appendix B note to this Rule provides distance requirements for commonly found gas equipment; however, the Appendix B note is not an exhaustive list of all equipment found in CSA B149, such as those devices certified to CSA 6.18 or CSA 6.22.

#### Disclaimer:

The information in this bulletin is not intended to provide professional design advice. If professional expertise is required with respect to a specific issue or circumstance, the services of a professional should be sought.

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### **STANDATA bulletin 21-ECB-004**

#### Electrical

#### 2021 Canadian Electrical Code, Part I, Section 4 - Conductors

Date Issued: 1 February 2022

Page 1 of 3

#### Purpose

This clarifies select rules of Section 4 of the Canadian Electrical Code, Part I (CE Code), which applies to conductors for services, feeders, and photovoltaic circuits.

#### Discussion

#### Rule 4-004 Ampacity of wire and cables

#### Underground Installations

The Appendix B note on this item references "defined assumptions"...

It is the intent of this Rule that where ampacities of underground installations of cable size 1/0 and larger are based on conditions of use other than those set out in the foregoing notes or the defined assumptions preceding them, they should be justified by precise calculation based on IEEE 835.

While these assumptions are not detailed in the current code, they are referred to in Appendix B note of the 1994 (seventeenth edition) as follows:

#### Assumptions used in the Calculation of Cable Ampacity Rating for Direct Buried and Underground

#### **Conduit Installations**

<u>General</u>

Load factor Ambient Soil Temperature Conductor Temperature – *100%* – 20°C – 90°C

Unless stated otherwise, all Code references in this STANDATA are to the Canadian Electrical Code, Part 1, 2021.

Issued by the Provincial Electrical Administrator

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Soli Thermal Resistivity	– <u>90°C - CM</u> Watt
Insulation/Jacket Thermal Resistivity	<i>− <u>400°C - CM</u> Watt</i>
Shield or Sheath Operation Voltage Rating	– Open Circuit – 0 to 5 kV
Direct Buried Installation	
Cable Depth of Burial Cable Types	– 915 mm (36") – RWU90 – RA90 – TECK90 – ACWU90
Conduit Installation	
Diameter of Conduit Depth of Concrete from Surface Concrete Thermal Resistivity	– 127 mm (5") – 760 mm (30") – <u>85°C - CM</u> Watt
Cable Type	– <i>RW90</i>

In determining the maximum current which copper or aluminum conductors may carry in underground runs, paragraphs 1) d) *(for copper)* and 2) d) *(for aluminum)* of Rule 4-004 requires that, for conductors No. 1/0 American Wire Gauge (AWG) and larger, diagrams D8 to D11 and Tables D8A to D11B assist the Code user in determining the maximum conductor ampacity. The results arrived at when using diagrams D8 to D11and tables D8A to D11B are based on the assumptions above.

Otherwise, to determine precise maximum ampacities for conductors No. 1/0 AWG and larger, the detailed calculations in the Institute of Electrical and Electronics Engineers (IEEE) Standard 835 should be applied as advised in the Appendix B note to Rule 4-004.

#### Cable Arrangements

The Appendix B note to Rule 4-004 indicates where Tables D8A to D11B may be used to determine ampacities of conductors for the cable arrangements shown in diagrams D8 to D11. Where other cable configurations are used, the cable manufacturer or a registered engineering professional should be consulted to verify the cable ampacities.

#### Metallic vs. Non-metallic Raceway

Note (1) of Tables D9A and D9B refers to <u>non-metallic</u> underground raceways. These tables apply to an installation configuration of a single conductor per raceway. The values in the table do not take into consideration heating effects of circulating currents that would be imposed on metallic conduit, hence the reference to only <u>non-metallic</u> raceways.

#### Removal of Table 39

Users of the CE Code are reminded that Table 39 has been removed from the 2021 edition of the CE Code (Table 39 "Minimum permitted size for 3-wire 120/240 Volt and 120/208 Volt service conductors for single dwellings and feeder conductors or cables supplying single dwelling units of row housing, apartment, or similar buildings and terminating on equipment having a conductor termination temperature of not less than 75° Celsius").

#### Rule 4-018 Size of neutral conductor

Neutral conductor size for single family dwellings

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For a single family dwelling with provisions for a 120/240 volt electric range, a 120/240 volt electric dryer or other balanced loads, the neutral conductor of the consumer's service, or feeder, may be sized in accordance with Subrule 3).

This concept may be equally applied to a feeder or service supplying more than one unit of row housing or similar installations.

As explained in Rule 4-004 4), the common conductor of a consumer's service or feeder connected to each of two phase wires and the neutral of a 4-wire, 3-phase system carries approximately the same current as the other conductors and therefore must not be reduced.

#### Neutral overload from the effect of harmonics on a system

When designing an installation that will incorporate a number of electronic devices, a registered engineering professional should review the design to ensure conductors will not be subject to an overload condition due to harmonic effect.

**Note:** The standard averaging type clamp-on ammeter cannot measure the overload imposed on a system from the effect of harmonics accurately. A "True Root Mean Squared" (True RMS) type must be used.

#### Rule 4-022 Installation of identified conductor

#### Identified conductor

An identified conductor is a conductor that has a white covering, or in the case of certain flexible cords, a raised longitudinal ridge. In either case, the identified conductor is the grounded circuit conductor or a neutral.

#### Pigtailing of identified conductor

Where a device, such as a receptacle or a lampholder, is fed from a 2-wire circuit employing an identified conductor, pigtailing the identified conductor is not required. Where a device is fed from a multi-wire branch circuit employing an identified conductor, pigtailing of the identified conductor is required as per Rule 4-030 4).

#### Disclaimer:

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### **STANDATA bulletin 21-ECB-006**

Electrical

#### 2021 Canadian Electrical Code, Part I, Section 6 - Services and service equipment

Date Issued: 1 February 2022

Page 1 of 5

#### Purpose

This clarifies Section 6 of the Canadian Electrical Code, Part I, which outlines the installation requirements for services, service equipment, and metering equipment.

#### Discussion

#### Rule 6-102 Number of supply services permitted

#### Row housing type residential dwelling units

Rule 6-102 permits a multi-unit residential building of the row housing type to have more than one supply service, one to each self-contained occupancy, provided:

- a fire-separation, meeting the requirements of the National Building Code of Canada Alberta Edition, separates each occupancy, and
- each occupancy has a separate entrance with direct access to ground level.

#### **Rule 6-200 Service equipment**

#### Service equipment

Equipment approved as switchgear, industrial control equipment, or distribution panelboards may not incorporate the features necessary to comply with the Canadian Electrical Code, Part I (CE Code) definition of a "service box". To meet this code definition the equipment used should conform with the applicable requirements of Canadian Standards Association (CSA) Standards. The following is a general guide for determining the suitability of a switch or circuit breaker forming part of an assembly for use as a service entrance:

- 1. The main switch or circuit breaker is separated from the feeder or branch circuit distribution compartment by sheet metal barriers or equivalent with bushed holes for the necessary wiring between compartments;
- 2. The main switch or circuit breaker compartment has a separate access cover with means for locking or sealing the cover in the closed position;

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[Original Signed) Clarence C. Cormier, P.Eng.

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- The service disconnecting means is manually operable with the cover closed and no bare live parts are exposed;
- 4. The operating handle of the switch or circuit breaker is capable of being locked in the "OFF" position;
- 5. The service enclosure has a neutral assembly with an adequate number of wire connectors for individual conductors;
- 6. A solderless connector, clamp, or other suitable means for bonding the enclosure to the neutral assembly in the main compartment when required. The CE Code allows the grounded conductor to be bonded to the grounding conductor once only. If this is done in the meter socket, it would not be allowed to be done in the service box as well; and
- 7. The equipment is factory labeled as "SUITABLE FOR USE AS SERVICE EQUIPMENT".

In some jurisdictions in Alberta, rural properties with services up to 200 amperes have been permitted to use the utility-owned equipment as the consumer service disconnect. This has led to inconsistent application of CE Code requirements in the province. It is now recognized that the previously permitted installation is not compliant with the CE Code requirement for consumers' services. Utility-owned equipment such as the commonly-used "economizer/totalizer" for rural services typically does not comply with the definition of "service box" and, therefore, cannot be considered acceptable as a consumer service disconnect.

Several code-compliant installation methods exist and should provide sufficient flexibility for rural services under 200 amperes. The installation of the utility-owned equipment is not restricted under the requirements of the CE Code and the installation of an "economizer/totalizer" is not prevented by this bulletin. However, this piece of equipment cannot be considered to be the consumer's service disconnect required by Rule 6-200 1). Users are reminded to consider Sections 6 and 10 requirements when planning any consumer's service.

#### Rule 6-206 Consumer's service equipment location

#### Length of service conductors in buildings

Rule 6-206 1) c) requires service equipment be located as close as practicable to the point where the service conductors enter the building. Rule 6-208 outlines where the conductors must be located. Both rules recognize service conductors must enter the building to make connection to the service equipment. While it is generally agreed that, in the interest of safety, the unfused conductors within the building should be as short as possible, this distance is not clear.

A recommended practice in Alberta is to limit the length of service conductor in the building to 3 metres. Where this is not practical, service conductors may extend further inside the building provided they are mechanically protected in rigid metal conduit. The maximum distance for service conductors inside a building should not exceed 7.5 metres.

Alternatively, Rule 6-206 3) may be applied in situations when the service panel cannot be located near the point of entry of the consumer's service conductors. In this case, a safety codes officer must evaluate each situation on an individual basis.

#### Service equipment in areas prone to flooding

Rule 6-206 1) v) prohibits the installation of service boxes or other consumer's service equipment in areas below the flood elevation. Flood elevation is defined in Section 0 as the elevation of surface water resulting from a flood event designated in accordance with the National Building Code of Canada or applicable local legislation. Users of the CE Code are reminded to check with local planning departments regarding flood elevation in the area of concern.

#### Rule 6-300 Installation of underground consumer's service conductors

#### Underground service entrance facilities on the consumer's premises

Electrical utilities do not always install underground service entrance facilities (conductors, cable, raceway) on the consumer's premises. In these situations, it is necessary for the property owner, developer or contractor to arrange for the safe and reliable installation of these facilities. The following guidelines are recommended:

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- 1. Only qualified persons should install underground service entrance facilities.
- 2. Obtain the appropriate electrical permits from the authority having jurisdiction.
- 3. To facilitate connection to the utility distribution system, terminate the supply end of the service conductors in a location and manner acceptable to the supply authority.
- 4. Seal the exposed supply end of the consumer's service conductors to prevent the entry of moisture.
- 5. Provide mechanical protection as necessary to prevent damage pending connection by the supply authority.
- 6. The supply authority is responsible for connecting the consumer's service conductors to the supply service.
- 7. Ensure service conductors and cables are approved and suitable for the application in accordance with Rule 2-024, 6-300 and Table 19.
- 8. Where settlement of earth is likely to occur, position conductors in a manner that will prevent settlement of the surrounding earth from placing any strain on the conductors entering the meter socket or building. Trench to a depth where the conductors will be laid on solid undisturbed ground.
- 9. To prevent strain on the connections in the meter socket, arrange the service conductors to form an inverted "U" before connecting to the line side terminals.
- 10. Label the service box with wording similar to:



- 11. To avoid inconvenience and unnecessary costs to the customer, coordinate the installation of the power conductors with telecommunications services (telephone, television, internet).
  - Telecommunications cables may be installed without a fixed minimum separation from the power service conductors, provided:
    - a concentric neutral cable or metal covered cable is used for the power conductors, or
    - the power conductors are installed in a conduit or plastic pipe.
  - Otherwise, the separation between the telecommunication cables and the power service conductors should be not less than 300 millimetre of well-tamped earth, 100 millimetre of brick, or 75 millimetre of concrete.
- 12. Place service conductors loosely on undisturbed earth and install and protect them in accordance with Rule 12-012.

#### Depth of burial

Rule 6-300 1) b) i) references Rule 12-012 for underground installation requirements. Rule 12-012 1) further references Table 53 for proper burial depths. Because of potentially much larger fault currents, it is recommended the minimum cover requirements for direct buried <u>service entrance</u> conductors, cables or raceways meet the requirements for vehicular areas as shown in Table 53, even in non-vehicular areas.

#### Connection of consumer's service conductors to utility pad mount transformers

The supply authority is responsible for the safety and acceptability of secondary terminations on their pad mount transformers regardless of who makes the actual connections. The following guidelines are recommended regarding safety procedures for the connection of a consumer's service to the secondary terminals of a utility pad mount transformer:

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- 1. Obtain written authorization and supplementary instructions from the supply authority before commencing electrical work in the pad mount transformer enclosure.
- 2. Supply and install terminating lugs: approved for the type of conductors used, and compatible with the secondary terminals or bus of the transformer.
- 3. Ensure the supply authority inspects the terminations prior to energizing the transformer.

#### Maintenance of underground consumer's services

If breakdown occurs in underground service conductors or repairs become necessary, the local electrical utility company must be contacted to disconnect and isolate the consumer's service conductors from the power supply. Also disconnect and isolate renewable or back-up power sources where applicable.

The electrical utility companies have an agreement with "Utility Safety Partners" to locate and mark the location of the underground service conductors for digging postholes or other excavation and digging operations.

#### Electrical conductors and gas services in the same trench

The CE Code, does not establish specific requirements for installing electrical conductors in the same trench as gas-lines. Gas services installed by gas utilities are subject to requirements administered by the Industry Governance and Rural Utilities Branch of Alberta Agriculture, Forestry and Rural Economic Development. If you wish to install electrical conductors in the same trench as a gas service, consult the local gas utility for advice.

Gas sub-service lines (i.e., house to garage) are an owner responsibility under the Gas Code Regulation. When electrical conductors are installed in the same trench, it is recommended the two systems be separated by 300 millimetres of well tamped earth or a 50 millimetre pressure treated plank.

#### Rule 6-312 Condensation in consumer's service raceway

The industry has expressed concern with the use of fibreglass thermal insulation for sealing service raceways. The insulation often becomes saturated with moisture making it no longer effective and increasing the potential for rupture of the raceway during "freeze/thaw" cycles. Rule 2-126 2) does not permit the use of thermal insulation for this purpose. "Duct Seal" or other approved compounds are acceptable.

#### Rules 6-400 to 6-412 Metering equipment

The location and type of metering equipment must be acceptable to the supply authority. Consult the local supply authority for metering requirements to avoid costly changes and delays in getting a power connection.




Normally, the meter socket and service equipment are installed once the outside walls are constructed. Some contractors, however, have introduced alternate means of supporting the meter prior to outside walls being constructed in order to provide electrical service earlier during the construction phase of the residence. In these circumstances, consideration must be given to ensuring the meter is effectively supported. The diagram above shows one acceptable method of supporting the meter.

In addition to effective meter support, precautions must be taken to protect the panelboard from the effects of rain until the sub-floor is in place.

### Installation of current transformers

For protection and safety of workers, the industry is reminded to short circuit the terminals of current transformers before opening the metering circuit while the system is energized. By design, current transformers may produce an extremely high open circuit voltage with the potential for serious shock hazard and equipment damage.

At installation, an accessible shorting block or similar mechanism should be provided for workers to be able to readily short circuit the current transformer circuit prior to opening the circuit.

### Disclaimer:

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Electrical

### 2021 Canadian Electrical Code, Part I, Section 8 – Circuit loading and demand factors

Date Issued: 1 February 2022

Page 1 of 2

## Purpose

This clarifies the rules of Section 8 of the Canadian Electrical Code, Part I (CE Code), which applies to maximum circuit loading, load calculations for sizing services, feeders, branch circuits, the use of demand factors, branch circuit positions for dwelling units, and heater receptacles for vehicles.

### Discussion

### **Rule 8-100 Current calculations**

### 120/208 volt, 3-wire feeders from a 120/208 volt, three-phase, 4-wire supply

To obtain the voltage divisor for calculating the minimum ampacity of 120/208 volt, 3-wire feeders, use the voltage between a phase and the identified conductor (120 volts) multiplied by two (120 volts x 2 = 240 volts).

The voltage divisor for calculating the minimum ampacity of the 120/208 volt, three-phase, 4-wire service conductors is 1.73 x 208 volts.

### Rule 8-200 Single dwellings

### **Electric Water Heaters**

When performing load calculations for single dwellings as per Rule 8-200 1), domestic hot water storage tank heaters should be included as per Rule 8-200 1) a) vii). Electric tankless water heaters or electric water heaters for steamers, swimming pools, hot tubs, or spas should be included as per Rule 8-200 1) a) v).

Calculating Additional Loads in Excess of 1500 Watts

Unless stated otherwise, all Code references in this STANDATA are to the Canadian Electrical Code, Part 1, 2021.

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To determine the minimum ampacity of service conductors or feeder conductors in accordance with Rule 8-200 1) a) vii), the <u>nameplate rating</u> of each load with a rating greater than 1500 watts is to be used in the calculations.

### Rule 8-202 Apartment and similar buildings

### **Electric Water Heaters**

When performing load calculations for single dwellings as per Rule 8-202 1), domestic hot water storage tank heaters should be included as per Rule 8-202 1) a) vii). Electric tankless water heaters or electric water heaters for steamers, swimming pools, hot tubs, or spas should be included as per Rule 8-202 1) a) vi).

### Calculating Additional Loads in Excess of 1500 Watts

To determine the minimum ampacity of service conductors or feeder conductors in accordance with Rule 8-202 1) a) vii), the <u>nameplate rating</u> of each load with a rating greater than 1500 watts is to be used in the calculations.

# Rule 8-400 Branch circuits and feeders supplying heater receptacles for vehicles powered by flammable or combustible fuels

The minimum ampacity of service or feeder conductors for a building should be calculated by using Rules 8-202 to 8-208 as applicable for the type of occupancy, and separately calculating the load for the automobile heater receptacles according to Rule 8-400. These two figures, each with its own demand factor already applied, are then added together to determine the total load.

Where the parking lot receptacles are supplied from individual dwelling units of an apartment or similar multifamily building, the above method of calculating total demand should also be applied. The 75% demand factor in Rule 8-202 3) e) is not to be applied, because a demand factor is included in the load as determined in compliance with Rule 8-400.

For the application of Rule 8-106 3), an automobile heater receptacle load may be considered similar to an "electric space heating" load. In applying this rule, ensure the air conditioning load will not be operated in conjunction with the heating equipment and/or with the automobile heater receptacle load.

### Disclaimer:

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Electrical

# 2021 Canadian Electrical Code, Part I, Section 10 – Grounding and bonding

Date Issued: 1 February 2022

Page 1 of 6

# Purpose

This clarifies Section 10 of the Canadian Electrical Code, Part I (CE Code), which deals with the grounding of electrical systems and the bonding of its associated equipment. Grounding and bonding minimizes the hazard of electric shock to persons and animals, and also protects against property damage.

# Discussion

### Rule 10-102 Grounding electrodes

### Replacing metal water service lines with non-metal type

The replacement of existing metal water service lines with a non-metal type and the insertion of non-metal devices such as water softeners in the water line may result in a loss of adequate service grounding.

To ensure that grounding is not compromised:

- a) Where a metal water service line serving as the grounding electrode is replaced with a non-metal line, an alternate ground electrode should be installed.
- b) Where non-metal devices are inserted into a water line serving as the grounding electrode, a grounding jumper sized in accordance with Rule 10-114 should be installed.

When utilizing a metal water pipe as an electrode, connection as per Rule 10-118 should be made on the street side of the water meter and as close as practicable to the point of entrance of the water service.

### Plate electrode

Rule 10-102 2) c) requires that a plate electrode be buried at least 600 millimetres below finished grade level. Safety codes officers have encountered situations where plate electrodes have been placed just below the concrete slab in basements, apparently due to a misunderstanding of the term "finished grade level".

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Finished grade level is the anticipated final elevation of the surface directly above the plate electrode. Plate electrodes in basements should be buried at least 600 millimetres below the expected final surface elevation of the basement floor.

### Grounding electrodes provided by the supply authority

Grounding electrodes and associated grounding conductors owned by the supply authority fall under the Alberta Electrical Utility Code (AEUC), not under the CE Code. As such, they cannot be utilized by the consumer. A separate grounding electrode owned by the consumer and falling under the CE Code is required to establish single point grounding on the consumer's side of the demarcation point. The consumer's grounding electrode shall be connected to the grounded conductor terminal of the consumer's service equipment as per Rule 10-210.

Note: see end of this STANDATA for information on Grounding and Bonding at Oil and Gas Drilling or Servicing Operations

### Rule 10-210 Grounding connections for solidly grounded ac systems supplied by the supply authority

### Installation of grounded service conductor

The bonding conductor in a cable assembly is intended to be used as an equipment-bonding conductor. Where armoured cables are installed as consumer's service conductors in compliance with Rule 6-300 or Rule 6-302, the bonding conductor does not necessarily meet the minimum size requirements of Rule 10-114 and it may be necessary to use a 4-conductor cable.

### Elimination of stray voltage in areas housing livestock

Where stray voltages are severe enough to present a problem in facilities housing livestock, neutral to earth reactors (commonly known as "tingle voltage filters") are permitted by Rule 10-116 2).

Neutral to earth reactors should not be used until it has been determined that improperly installed or improperly maintained electrical systems or equipment have been corrected to eliminate them as a possible cause of the stray voltage problems.

### Rule 10-212 Grounding connections for solidly grounded separately derived ac systems

### Circuits supplied from two sources

Where circuits are supplied from two sources, certain grounding arrangements may affect the operation of ground fault sensing devices. Following are some guidelines for effectively grounding two sources supplying circuits through a transfer switch or tie.

### Grounding at both sources of supply

Where two ground electrodes are used, one for each source of supply (e.g., utility power and power from a standby or emergency generator), it would be good design practice to isolate the grounded circuit conductor for each system through an extra pole at the transfer switch. This arrangement would reduce the potential for nuisance tripping of ground-fault sensing equipment.

### Grounding at a single point

Subrule 1) a) iii) permits a single connection to a grounding conductor to be connected to the tie point of the grounded circuit conductors in the transfer switch or at the service equipment.

# Rule 10-214 Grounding connections for portable generator assemblies and vehicle-mounted or mobile generators

### Neutral Connections

Portable generators are being used more often by homeowners as back-up or stand-by power. It is important that the electrical system is properly grounded. Generators are available with the neutral bonded to the frame or without (floating neutral). The following is recommended:

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### Neutral bonded to frame

If the generator has a neutral bonded to the frame, the neutral should also be grounded to a grounding electrode and the transfer switch should have an extra pole to switch the neutral. Switching the neutral will ensure that, at any given time, the neutral is only grounded at one point (either the main switch or the generator).

### Floating neutral

If the generator has a floating neutral, it should not be grounded to a grounding electrode nor should it be switched in the transfer switch. The generator frame is bonded to ground as a result of the "equipment bonding" requirements of the CE Code and the neutral connection to the electrode is maintained at the main service via a solid neutral connection in the transfer switch.

Because of the variety of emergency and standby power systems, it is not always feasible to provide fixed recommended practices. Each installation should be evaluated and designed to satisfy specific load, customer and code requirements. Furthermore, in situations where it may be necessary to remove bonding screws or jumpers in the service switch or at the generator, you should follow manufacturers' instructions.

### Rule 10-600 Bonding for fixed electrical equipment

Rule 10-610 Bonding means - fixed equipment

### Stainless steel mineral-insulated electrical-heat-trace cable bonding requirements

It is common practice to install stainless steel mineral-insulated electrical heat trace cable (SS MI EHT cable), for modular fabrication of piping systems, with splices between portions of cables made in the field. Where SS MI EHT cable is spliced in the field, confusion exists regarding the bonding to ground of <u>metallic</u> junction boxes. To assist industry in determining bonding requirements for <u>metallic</u> junction boxes, the following requirements must be observed:

- Rule 10-600 1) requires all non-current carrying parts of electrical equipment to be connected to a bonding conductor.
- Rule 10-614 outlines the acceptable means of achieving equipment bonding.

In the application of these requirements, distinction must be made between:

- Stainless steel MI cable supplying power to electrical equipment, and
- Stainless steel MI electrical heat tracing being supplied power as electrical equipment.
  - 1. For SS MI cable <u>supplying power to</u> electrical equipment, the sheath is not considered as a suitable bonding conductor, and therefore the MI cable requires a bonding conductor incorporated within the cable.
  - 2. When SS MI electric heat trace cable is being <u>supplied power as</u> electrical equipment, the stainless steel sheath is not serving as a bonding conductor, but rather as a metallic enclosure. Therefore this stainless steel metallic sheath must be bonded as required by Rule 62-104 2).

Guidelines for field installed SS MI EHT cable splices/junctions:

- Metallic junction boxes used in conjunction with SS MI EHT, to interconnect various sections, must be bonded to ground as required by Rule 10-600 1).
- Fiberglass/plastic junction boxes used in conjunction with SS MI EHT will not require a bonding conductor to the junction box; however, the continuity between the connectors/cable sheaths must be maintained. Bonding jumpers installed as per Rule 10-616 will be acceptable.
- SS MI EHT male and female cold lead assemblies attached to the SS MI EHT are certified for that purpose and no additional bonding is required.

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### Rule 10-700 Equipotential bonding of non-electrical equipment

### Bonding of gas piping systems

Bonding of gas piping systems should not interfere with any cathodic protection forming part of the gas piping system. The bonding of the gas line should therefore be made on the consumer side of the gas meter. Common practice in residential applications has been to bond the gas piping system to the cold water pipe at the hot-water tank. With the increasing use of plastic water lines, it is recommended that the gas piping system be bonded to the main distribution panel or the grounding conductor or the grounding electrode. When bonding soft copper propane lines and other similar tubing, care should be taken to ensure the piping is not damaged.

### Grounding and bonding at oil and gas drilling or servicing operations

Rule 10-102 1) requires that grounding electrodes shall consist of a manufactured, field-assembled or in-situ type.

When setting up a service rig or a drilling rig, the use of manufactured or field-assembled electrodes as described in Rules 10-102 2) and 10-102 3) can be impractical. The following is considered acceptable for meeting the intent of an <u>in-situ</u> type grounding electrode:

b) The well casing

a) The rig guyline anchor (usually the closest one to the rig generator)





For equivalency to conventional electrodes, the portion of the anchor or well casing below 600 millimetres from finished grade should present an equivalent surface area in contact with earth as do manufactured electrodes.

### Equipotential bonding of non-electrical equipment

Although the CE Code does not specifically require that non-electrical equipment around drilling or service rig installations be bonded, the intent of Rule 10-700 is to have the metal parts of non-electrical equipment bonded to ground to prevent dangerous potentials in the event of electrical faults (see the Appendix B note to this Rule).

The nature of the activity around drilling operations (i.e., wet conditions and the potential for explosive atmospheres) is a strong factor to support the need for bonding non-electrical metal equipment to minimize shock hazards and potential static discharges.

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# STANDATA 21-ECB-010 EXAMPLES OF BONDING



Note single metal-to-metal connection



Note double metal-to-metal connection

### Equipotential bonding and grounding conductor requirements

Rules 10-702 to 10-708 serve as a guideline for bonding non-electrical equipment to ground. To protect against loss of bonding, approved lugs are required for a positive connection. Due to the possibility of damage, a bonding conductor no smaller than No. 6 American Wire Gauge (AWG) copper or No. 4 AWG aluminum should be used.

Rule 10-706 requires that equipotential bonding connections are made secure and are suitable for the conditions to which they may be subjected. For grounding and bonding of rigs, the use of a suitably rated copper or aluminum lug with associated buss is acceptable. Pliers-style, screw-type or spring enabled booster cable clamps are not considered acceptable as they may be easily dislodged.

It is important that the installation and connections of the grounding and bonding conductors are reliable. The connections or lugs should make good metal-to-metal contact to the non-electrical equipment being bonded. The conductors should be well secured to the connectors. In addition, Rule 10-116 of the CE Code requires that the grounding conductor be electrically continuous throughout its length.

Extra precautions should be taken to ensure conductors and connectors are not subject to damage that could result in a loss of continuity. Contractors should incorporate measures to prevent circumstances within operations that could result in a loss of continuity. This may include altering traffic patterns, flagging or other means of protecting the grounding and bonding conductors and their connections.

### Typical grounding and bonding layout

- Alternating Current (AC) system grounding conductor run to an aluminum lug or buss attached to a rig anchor or the wellhead.
- The remaining "non-electrical equipment" (i.e., rig, utility skid, mud pump, mud tank, generator building, boiler, etc.) bonded to ground with:
  - a) a bonding conductor interconnecting each piece of equipment back to the ground electrode; or
  - b) a bonding conductor from each piece of equipment to the ground electrode; or
  - c) a combination of a) and b) above.

A No. 4 AWG copper welding cable provides an excellent type of flexible cable for bonding purposes and AC system ground for most applications on service rigs.



Refer to the following diagrams as examples of typical rig grounding and bonding layouts.



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Electrical

# 2021 Canadian Electrical Code, Part I, Section 12 – Wiring methods

Date Issued: 1 February 2022

Page 1 of 4

## Purpose

This clarifies select rules of section 12 of the 2021 Canadian Electrical Code, Part 1.

### Discussion

### **Rule 12-012 Underground installations**

### Protection of conductors and cables

A review of Rule 12-012 5) indicates it is intended to apply to cables other than armoured cable, mineral-insulated cable and aluminum-sheathed cable. Requirements for mechanical protection of these cables are stipulated in Rules 12-604 and 12-710 (see comments on Rule 12-604).

### Rule 12-306 Insulated conductor and cable supports

When using wood poles to support overhead conductors, the following guidelines are recommended:

The poles should be treated with an acceptable preservative to prevent premature rotting and:

- (a) Be of sufficient length to provide the conductor clearances specified in Rule 6-112;
- (b) Be guyed where necessary to maintain the specified clearances;
- (c) Have a minimum circumference at the top of 430 millimetres;
- (d) Have a minimum circumference measured at a point 1.8 metres from the butt of:
  - (i) 700 millimetres for poles not exceeding 7.7 metres in length; or
  - (ii) 760 millimetres for poles exceeding 7.7 metres but not exceeding 9.2 metres; or
  - (iii) 810 millimetres for poles exceeding 9.2 metres but not exceeding 11.0 metres; or
  - (iv) 860 millimetres for poles exceeding 11.0 metres but not exceeding 12.2 metres; and

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Issued by the Provincial Electrical Administrator

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- (e) Be set in the ground a minimum depth of:
  - (i) 1.5 metres for poles not exceeding 7.7 metres in length; or
  - (ii) 1.6 metres for poles exceeding 7.7 metres but not exceeding 9.2 metres; or
  - (iii) 1.8 metres for poles exceeding 9.2 metres but not exceeding 12.2 metres;

except that for poles set in rock, concrete, or fabricated bases, this depth may be reduced.

### Rule 12-310 Clearance of insulated conductors and cables

Although the Canadian Electrical Code, Part I (CE Code) does not specifically prescribe clearances for overhead conductors that are not service conductors, the clearance requirements of Rule 6-112 for service conductors should be used. Farms may be interpreted as commercial or industrial premises and the 5 metre clearance in Rule 6-112 is recommended.

Clearances for conductors over buildings are required to be 2.5 metres over flat roofs and at least 1 metre over peaked roofs. Where metal roofing is involved, a 3 metre clearance is recommended. Buildings of this type may require a supporting mast so that at least a 3 metre clearance over the roof can be maintained.



Conductor clearances for electrical <u>utility</u> installations are prescribed in the Alberta Electrical Utility Code (AUEC).

### Rule 12-402 Uses of flexible cord

### Portable multi-outlet assemblies

Approved indoor power poles of the portable type are available with a flexible supply cord. The installation of receptacle outlets above suspended ceilings for the connection of cord connected portable indoor power poles is considered acceptable. The installation however, is normally concealed in the ceiling space resulting in a potential for proper maintenance to be overlooked. Therefore, the use of extension cords or "cube" taps are discouraged and the power pole flexible supply cord should be plugged directly into the receptacle outlet.

### Rule 12-516 Protection for cable in concealed installations

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Non-metallic sheathed cable should not be run horizontally through sections of a building where it is known that cupboards or other fixtures will be installed that may require the use of long mounting nails or screws that could pierce the cable. Unless the wall construction is such that horizontally run cables are at least 50 millimetres from the outer edges of the wooden members, cables should be protected by protection plates or sleeves of No. 16 Manufacturer's Standard Gauge (MSG) steel or the equivalent.

### Rule 12-604 Protection for armoured cables in lanes

Rule 12-604 indicates that unless otherwise protected, armoured cables must be protected with steel guards where located less than 2 metres above grade in lanes and driveways. However, cables may also be subject to similar damage in other locations. To meet the intent of Rule 12-604, armoured cables located in areas where they may be damaged from vehicles or equipment should have mechanical protection for 2 metres above grade.

Where underground cables extending to an overhead supply system are intended to be installed on a supply authority's pole, mechanical protection should be provided by non-metallic conduit or similar non-metallic material. Please contact the local supply authority before placing cables on their pole.

### Rule 12-606 Use of thermoplastic-covered armoured cable

Armoured cables having an overall outer covering, such as Type ACWU and Type TECK, must be provided with mechanical protection where necessary to ensure the outer covering is not damaged as stated in Rule 12-606. Cables having an overall outer covering that are used in hazardous areas must be installed in a manner that will not subject the covering to mechanical damage either during or after installation.

### Rule 12-1114 Maximum spacing of conduit supports

### Use of Stand-offs To Support Conduit Risers on Supply Authority Poles

The AEUC has requirements for mounting equipment on poles to discourage unauthorized climbing. Where the supply authority requires stand-offs and the required distance between supports exceeds that required in the CE Code for the raceway, the following is recommended:

Rigid PVC (polyvinyl chloride) or HFT (halogen free, fire resistant, temperature stability) conduit with a trade size of 63 or larger will be acceptable with spacing between supports of 2.5 metres, at one point only, to comply with the AEUC requirement. Spacing between supports for the balance of the riser is to comply with Rule 12-1114. This raceway may be installed as a continuous run, or as a sleeve to support a raceway with a smaller trade size. Please contact the supply authority before placing any equipment on their pole.

### Rule 12-1404 Restrictions on use (of Electrical Metallic Tubing)

Installations where Electrical Metallic Tubing (EMT) is subject to excessive vibration are considered "subject to mechanical damage" as referenced in paragraph a) of this rule. You are cautioned to avoid using EMT in these situations. Some examples of where vibration may be "excessive" are gravel crushers, saw mills, planer mills, etc.

### Rule 12-2202 Insulated conductors and cables in cable trays

### Installation of Bonding Conductors in Cable Tray

Although a green insulated single conductor is permitted as the bonding conductor in cable trays, it must be flame tested in compliance with Rule 2-126. Wire and cable certified to Canadian Standards Association (CSA) Standard C22.2 No. 75 Thermoplastic Insulated Wires and Cables (i.e.: Type TW, TWU, etc.) has been flame tested to the Vertical Flame Test, equivalent of that recognized by the FT1 mark.

Wire and cable certified to CSA Standard C22.2 No. 38, Thermoset Wire and Cable, (i.e.: RW, RWU XLPE), however, has no mandatory flame test requirement. Such wires or cable would not be acceptable for installation in a cable tray unless specifically tested and marked accordingly.

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The National Building Code - Alberta Edition contains flame spread requirements for wire and cables as indicated in Rule 2-126 of the CE Code. To meet the requirements for wire and cable in non-combustible buildings, it will be necessary to use materials or installation methods specifically approved for those applications.

### Support – General

### Rules 12-1010, 12-1406, 12-3010, 12-3012

Rules 12-1010 and 12-1406 indicate that conduit and EMT must be securely fastened. Rules 12-3010 and 12-3012 stipulate the conditions under which boxes, cabinets and fittings are to be firmly secured to fixed structural units. The use of suspended ceiling support wires for this purpose is not considered as meeting the intent of these rules.

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Electrical

# 2021 Canadian Electrical Code, Part I, Section 16 – Class 1 and Class 2 circuits

Date Issued: 1 February 2022

Page 1 of 2

## Purpose

This clarifies Rules 16-010 and 16-212 of Section 16 of the Canadian Electrical Code, Part I, dealing with Class 1 and Class 2 circuits.

### Discussion

### Rule 16-010 Circuits to safety control devices

Even though a remote-control circuit may have the power characteristics of a Class 2 circuit, where the failure to operate a remote-control circuit to a safety control device introduces a direct fire or life safety hazard, the remote-control circuit shall be deemed to be a Class 1 circuit.

Examples of safety control devices which may introduce a direct fire or life safety hazard include boiler safety control devices, such as high limit switches and pressure switches, or ski lift safety circuit devices, such as limit switches or stop switches.

Energy management systems designed to control all heating, air conditioning, and ventilation functions in a building may have both Class 1 and Class 2 circuits. Power requirements, wiring method, application, and design may determine the actual circuit classification; however, remote-control circuits to any safety control device that may introduce a direct fire or life safety hazard must be installed as a Class 1 circuit.

For clarification on whether a remote-control circuit with Class 2 power characteristics should be deemed a Class 1 circuit, the installation owner and designer should be consulted to identify if failure of the circuit controlling the safety device will introduce a direct fire or life safety hazard.

### Rule 16-212 Separation of Class 2 circuit conductors from other circuits

Principal Exhaust Fans

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The National Building Code – Alberta Edition (Article 9.32.3.4.) requires the mechanical ventilation system in residential occupancies serving only one dwelling unit to incorporate a principal exhaust fan interconnected with a make-up-air supply fan. The principal exhaust fan is controlled by a centrally located control switch, which simultaneously starts the ventilation system supply fan. Where the dwelling uses a forced-air heating system, the

principal exhaust fan must be interlocked with the furnace fan.

Most furnaces have a Class 2 circuit, which controls the furnace fan through a relay. It is important when interlocking the principal exhaust fan with the furnace fan not to mix the Class 2 furnace control circuit with the power circuit for the principal exhaust fan. Rule 16-212 3) indicates Class 2 circuits and power circuits must not be in the same enclosure or raceway.

The diagram depicts one example of a proper method for interlocking the Class 2 furnace fan control circuit with the power circuit of the principal exhaust fan. Other methods may also be acceptable.



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Electrical

# 2021 Canadian Electrical Code, Part I, Section 18 – Hazardous locations

Date Issued: 1 February 2022

Page 1 of 4

# Purpose

This clarifies select rules of Section 18 of the Canadian Electrical Code, Part I (CE Code) which addresses electrical installations where explosive gas atmospheres or explosive dust atmospheres are likely to occur.

### Discussion

### **Rule 18-004 Classification of hazardous locations**

The purpose of area classification, as outlined in the CE Code, is to determine the proper equipment, materials, and wiring methods for electrical installations in hazardous locations.

Rule 18-004 requires that hazardous location classification be carried out and documented by qualified persons, and that the person assuming responsibility for the classification authenticate the hazardous area classification. In Alberta, this person is a registered engineering professional who is authorized to engage in the practice of engineering under the *Engineering and Geoscience Professions Act* and its regulations. See the CE Code, Part I, Appendix B Note to Rule 18-004 3) for further information.

Subrule 4) of Rule 18-004 allows electrical installations within the scope of Section 20 to be classified in accordance with Section 20.

In determining if an area is required to be classified as a hazardous location, consideration should be given to:

- the definition of 'Hazardous location' in Section 0;
- the divisions of explosive atmospheres into Zones based on frequency of occurrence and duration of the explosive atmosphere as prescribed in Rules 18-006 and 18-008; and
- the definitions of Zones in Rule 18-002.

Once it is determined that an explosive atmosphere could exist in an area, an area classification would be performed in compliance with 18-004.

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Due to the nature of hazardous locations and the risk of fires and explosions associated with them, involvement by various individuals who understand the relevance and significance of the properties of the hazardous materials involved, are knowledgeable in the appropriate classification standards and guidelines, and who are familiar with the process and equipment is essential to ensure that appropriate measures are taken to properly classify the hazardous locations. For a small or simple facility, this may only require the input of a single discipline, whereas for a large or complex facility, this may involve more than one discipline such as electrical, mechanical, process, safety, and operations specialists.

Documentation is an essential element in classifying hazardous locations, and typically includes items such as drawings and specifications, studies and calculations, reports and operating descriptions. This documentation should be maintained and updated over the life of the facility.

Appendix L of the CE Code contains more details on area classification guidelines.

For area classification requirements at oil and gas facilities permitted or constructed prior to February 1, 2019, the use of the "Code for Electrical Installations at Oil and Gas Facilities" published by the Safety Codes Council is permitted. For oil and gas facilities permitted on or after February 1, 2019, the prescriptive requirements contained in Rule 18-004 of the currently in force edition of the CE Code apply.

For classification requirements at sewage lift and treatment plants, see Rule 22-704.

### **Rule 18-050 Electrical Equipment**

### Ammonia machinery rooms

Ammonia is listed in Rule 18-050 as a Group IIA hazardous gas. Canadian Standards Association (CSA) Standard B52-Mechanical Refrigeration Code includes installation requirements for refrigerating systems that use ammonia. Where a refrigerating system uses ammonia in a "Machinery Room", the room is normally considered a hazardous location.

However, when a refrigerating system using ammonia is installed in a "Class T Machinery Room", the room shall not be considered a hazardous location. One of the requirements for a Class T machinery room is that where the independent mechanical ventilation system is not operated continuously, a gas monitoring system shall be installed to automatically start up the ventilation system and actuate a remote alarm at the lowest practical instrument-detection level not exceeding 25% of the lower explosive limit.

To be acceptable as a non-hazardous location, it may be necessary to provide the appropriate Authority Having Jurisdiction written confirmation that the refrigerating system is installed in a "Class T Machinery Room" in conformance with CSA Standard B52.

### Installation of transducers and similar devices

Transducers are devices used to convert one form of energy into another, such as pressure-to-current (P/I) or vice versa (I/P). In a typical application, the transducer converts an electrical output signal, usually 4-20 milliamps (mA) from a controller to a pneumatic signal necessary to operate a control valve actuator or pneumatic positioner (I/P). Another application may be to monitor the flow and/or pressure of process fluids with transducers that convert pressure to a 4-20mA signal (P/I).

Careful consideration must be given to the selection of an appropriate transducer if a flammable gas, vapour, or liquid (explosive fluid) is intended as the medium for operation. Using transducers designed only to be operated with "normal air" poses significant safety hazards when they are actually operated by an explosive fluid. In these situations, the device has not been designed or tested for use with an explosive fluid and is not suitable for the application, thus voiding its certification and is in non-compliance with the CE Code.

When a "normal air" transducer is operated with an explosive fluid, there is a significant risk that the explosive fluid will migrate into the wiring system with potentially increased pressures within the equipment and the wiring system further compounding the hazard. Even though the wiring system and equipment enclosure may be explosion proof, they may not have been designed for use where there is a combination of an explosive fluid at elevated pressures. Therefore, the "normal air" transducer is not suitable for the application.

When selecting a transducer (or similar device) intended for operation with an explosive fluid, be sure to specify to the supplier/manufacturer its intended application and that it may require a process seal. At existing transducer installations, where an explosive fluid is the medium used to operate the device, you are encouraged to review documentation and consult with the manufacturer to determine whether the device incorporates an appropriate

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process seal. Where it is identified that these installations have a transducer that is not suitable for the application, you are advised to take all necessary actions to resolve a potentially hazardous situation.

**Note:** Although the installation of this type of equipment is prevalent in hazardous locations, there are certainly situations where a transducer operated by an explosive fluid is located in a non-hazardous location. In those cases, the above information is also equally applicable.

Relocatable structures (skid units)

See STANDATA 21-ECB-002, Item "Rule 2-100 Marking of Equipment".

### Assemblies in hazardous locations

Industry is reminded that, where individual components are certified but the entire assembly is not certified, CAN/CSA C22.2 No. 60079-46 (requirements for the design, construction, assembly, testing, inspection, marking, documenting and assessment of equipment assemblies for use in explosive atmospheres under the responsibility of the manufacturer of the equipment assembly) should be used.

### **Rule 18-064 Pressurized equipment or rooms**

Rule 18-064 allows equipment and associated wiring pressurized with a protective gas to be located in an explosive atmosphere. The Appendix B note to this Rule suggests three possible references that could be used to meet the requirements of this Rule. The National Fire Protection Association (NFPA) standard 496 "Standard for Purged and Pressurized Enclosures for Electrical Equipment" is frequently used as a guide in designing systems to meet the requirements of Rule 18-064 in Zone 2 or Class 1, Division 2 Hazardous Locations. The purpose of this STANDATA item is to highlight a common error that is made in applying this standard, as outlined in the following:

The pressurization system used by the standard to pressurize enclosures in Zone 2/Class 1, Division 2 Hazardous Locations is a type Z purge. Three requirements of type Z pressurizing in the standard read as follows:

### 4.8\* Type Z Purging

4.8.1 Detection shall be provided to indicate failure to maintain positive pressure within a protected enclosure

4.8.1.1\* Failure to maintain positive pressure within a protected enclosure shall be communicated by an alarm or an indicator.

4.8.1.2 It shall not be required to de-energize the protected equipment upon detection of the failure to maintain positive pressure within the protected enclosure.

Note that when reading the standard, an asterisk (\*) at the beginning of a paragraph indicates that explanatory material on the paragraph can be found in Appendix A of the standard.

In some cases, designers have interpreted paragraph 4.8.1.2 to mean that while loss of pressurization requires an alarm, it will not be necessary to de-energize the protected equipment. It should be noted that the wording in paragraph 4.8.1.2 should be understood to mean that while it may not be necessary to de-energize the protected equipment immediately "upon" loss of pressurization, if the pressurization cannot be restored within a short period, the protected equipment should be de-energized.

This interpretation is confirmed by the Appendix A note to the definition for an alarm, which reads as follows:

**A.3.3.1 Alarm.** An alarm is intended to alert the user that the pressurizing system should be immediately repaired or that the electrical equipment protected by the failed pressurizing system should be removed from service.

If the protected equipment is critical to the operation of a facility, installation of backup pressurization means should be considered as a part of the design.

### Rule 18-074 Bonding in hazardous locations

For sizing bonding conductors or bonding jumpers in hazardous locations, Rule 10-616 (Size of system bonding jumper or bonding conductor) should be used.

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### Rules 18-104 Sealing, Zone 1 & 18-154 Sealing, Zone 2

### Sealing of control cables with bundled sub-assemblies

CSA Standards C22.2 No.174 (Cables and cable glands for use in hazardous Locations) and C22.2 No.230 (Tray Cables) have provisions to test and mark cables with bundled sub-assemblies for extending through a sealing fitting or gland without removing the shield. Cables that meet the requirements of these standards will bear the mark "HL" (for cables approved for Hazardous Locations) or "TC" (for Tray Cable), followed by the appropriate group designation.

Only those cables tested and marked in accordance with the appropriate CSA Standards will be acceptable when extended through a seal without removing the shield and separating the individual conductors of the pairs, triads, etc.

### Sealing underground conduits and cables

Areas in earth below grade are normally considered non-hazardous, although the areas above grade have been classified as hazardous locations. In some cases however, spilled flammable liquids or heavier than air gases seeping through the earth can enter conduits and cables. Examples of such locations may be service stations, bulk storage plants, refineries, tank farms, and batteries.

To prevent the transfer of ignitable vapours into non-hazardous areas, conduits and cables located in such areas should be sealed at the point of emergence in the non-hazardous area. Cables may be sealed at the first point of termination in the non-hazardous area. The holes through which such conduits and cables enter the building should be made vapour-tight to prevent ignitable vapours from entering the building around the outside of the conduits or cables.

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Electrical

# 2021 Canadian Electrical Code, Part I, Section 20 – Flammable liquid and gasoline dispensing, service stations, garages, bulk storage plants, finishing processes, and aircraft hangars

Date Issued: 1 February 2022

Page 1 of 6

# Purpose

This clarifies rules in section 20 of the Canadian Electrical Code, Part I which contains the requirements for electrical installations for flammable liquid and gasoline dispensing, service stations, garages, bulk storage plants, finishing processes, and aircraft hangars.

# Discussion

### Rule 20-004 Hazardous areas

Rule 20-004 8) should not be interpreted as classifying the earth below the surface of the Zone 1 and Zone 2 areas around gasoline dispensing pumps as being a hazardous area. The rule stipulates that electrical wiring and equipment below the surface of areas defined as hazardous must be considered to be within a Zone 1 location that extends to the point of emergence above grade. Therefore, electrical wiring extending from a pit or depression below the surface of the Zone 1 or Zone 2 hazardous area around gasoline dispensing pumps to the point of emergence are Zone 1 wiring.

Seals are to be located in accordance with the requirements of Section 18 for the hazardous location involved.

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# **GASOLINE STORAGE TANKS**

### HAZARDOUS AREA CLASSIFICATION



# **GASOLINE DISPENSING STATION**





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### Outdoor aboveground gasoline storage tanks and dispensing

Some gasoline dispensing operations and service stations employ aboveground gasoline storage tanks. Industry has expressed concerns that Section 20 does not clearly identify hazardous area classifications in the vicinity of aboveground gasoline storage tanks when used in conjunction with gasoline dispensing operations.

Where a registered engineering professional has not classified an installation, the following guidelines may be used for the classification of outdoor aboveground gasoline storage tanks and dispensing operations:

Location	Zone	Extent of Classified Area
Tank – interior	0	Area within the tank.
Tank – exterior	2	Area extending 3 metres in all directions from the tank surface.
(single and double walled tanks)		
Pumps, valves, manifolds etc.	2	Area within 3 metres of a potential source of leakage.
Underground tank fill opening	1	Area within the spill containment box.
	2	Area within 3 metres of tank fill opening extending upward to a level 450 millimetres above driveway or ground level.
Aboveground tank fill opening	1 Area within a 900 millimetre radius of the fill connection or fill opening.	
	2	Area beyond the 900 millimetre extending to a radius of 3 metres from the fill connection or opening
Vent discharging upwards	1	The spherical volume within a 900 millimetre radius from the point of discharge.
	2	The spherical volume between 900 millimetres and 1.5 metre radius from point of discharge.

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Vent that does not discharge upwards		The cylindrical volume below both the Zone 1 and Zone 2 locations extending to the ground shall be considered a Zone 2 location.
Spill containment / Dike	2	The area within the perimeter extending to the top of the spill containment.
Dispenser		Refer to Rules 20-002 to 20-014

### Propane vehicle dispensers, container filling, and storage

The scope of this part of Section 20 does not cover consumer's propane storage tanks. For full information regarding these installations, consult your gas inspection authority.

As a general guideline for electrical installations near consumer's propane storage tanks, the following applies:

The area around a consumer propane storage tank is considered a Zone 2 hazardous location:

- (a) Within 3 metres of a tank having a capacity of 125 US Water Gallons (USWG) (over 475 Litres) to not more than 1000 USWG (3800 Litres); and
- (b) Within 7.5 metres of a tank having a capacity in excess of 1000 USWG (over 3800 Litres).

A "consumer" propane storage tank is a tank used to supply propane gas for propane burning appliances and equipment, and is not used for the purpose of transferring liquid propane to other containers.

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## **COMMERCIAL REPAIR GARAGES**



Bulk storage plants (See Table 69)

### FLAMMABLE LIQUIDS BULK PLANTS

HAZARDOUS AREA CLASSIFICATION

Zone 0	0000	Zone 1	Zone 2	1
--------	------	--------	--------	---

Outdoor Transfer of Flammable Liquids to Individual Containers



Transfer of Flammable Liquids to Individual Containers Indoors Without Mechanical Ventilation



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# FLAMMABLE LIQUIDS BULK PLANTS

HAZARDOUS AREA CLASSIFICATION

Zone 0		Zone 1	$\bigotimes$	Zone 2	$\square$
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INDOOR AREA



OUTDOOR AREA





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### Aircraft hangars

### Rule 20-400 Scope

Although all aircraft hangers are considered to fall within the scope of this section, there are some cases where strict compliance is not warranted. For instance, small storage sheds used for private aircraft at private airstrips, flying clubs, and the like are not considered to present the same hazard as larger commercial hangers and often wiring methods outlined in Section 12 would be acceptable. For these types of facilities, please contact the local Authority Having Jurisdiction for assistance in determining an acceptable wiring method and to obtain any required variances.



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Electrical

# 2021 Canadian Electrical Code, Part I, Section 24 – Patient care areas

Date Issued: 1 February 2022

Page 1 of 1

### Purpose

This clarifies select rules of Section 24 of the Canadian Electrical Code, Part I, which applies to the installation of electrical wiring and equipment within patient care areas of health care facilities and the portions of the electrical systems of health care facilities designated as essential electrical systems.

## Discussion

### Rule 24-000 Scope

Section 24 rules are to be applied to health care facilities beyond the traditional hospital locations including, but not limited to, dental clinics, physician's offices, and chiropractic clinics.

Contractors should reference CAN/CSA-Z32 and consult with the facility practitioners or the licensing body to determine the different patient care areas in a facility when these areas have not been designated by a registered architect or registered engineering professional.

Increasingly, health care activities are being moved into residential settings. Contractors should note that where health care equipment is installed in a dwelling unit, there may be special installation requirements for that equipment. Examples include: dialysis machines, electric hospital beds, pneumatic pumps, feeding pumps, suction machines, oxygen concentrators, cold nebulizer machines, pulse oximeters, curlin pumps, blood pressure monitors, and other similar types of medical equipment. Where such equipment is installed in a dwelling unit, the circuit(s) and device(s) supplying the equipment should comply with the requirements of Section 24. Contractors are also reminded to comply with the equipment manufacturer's installation guidelines and requirements.

The requirements of Section 24 need not apply to circuits or devices that do not supply home-based medical equipment.

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Electrical

# 2021 Canadian Electrical Code, Part I, Section 26 – Installation of electrical equipment

Date Issued: 1 February 2022

Page 1 of 2

## Purpose

This clarifies select rules of section 26 of the 2021 Canadian Electrical Code, Part 1.

## Discussion

### Rule 26-600 Location of panelboards

Concerns have been expressed with the requirement for mounting panelboards in dwelling units with no overcurrent device being more than 1.7 metres above finished floor level. This could create a situation where the non-metallic-sheathed branch circuit cables may come within the 1.5 metres from the floor described in Rule 12-518.

The rationale for Rule 26-600 is for panelboards to be located in areas where they will not be subject to damage and are readily accessible. The rationale for Rule 12-518 is to protect cables from mechanical damage when they come within 1.5 metres of the floor unless protected by location. Given that panelboards are intended to be installed in an area not subject to damage, then the non-metallic-sheathed cable entering the panelboard would meet the intent of Rule 12-518, not requiring additional mechanical protection.

### Rule 26-658 Arc-fault protection of branch circuits for dwelling units

Rule 26-658 1) a) ii) provides an exemption from Arc-fault Circuit Interrupter (AFCI) protection for refrigerators in kitchens. Concerns have been expressed regarding the refrigerator AFCI exemption not applying to freezers. Insight can be obtained from the rationale and intent in the Canadian Electrical Code Handbook for another residential branch circuit rule:

Canadian Electrical Code Handbook Rule 26-654

Item a) requires that a separate branch circuit for every refrigerator be installed in the kitchen. Some refrigerators draw a relatively high current, and plugging in another appliance on the same circuit can cause the overcurrent device to open. If this goes unnoticed, there is no electrical hazard, but the food in the refrigerator can spoil.

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[Original Signed] Clarence C. Cormier, P.Eng.

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Since the reason refrigerators are exempt from AFCI protection is to prevent any possible nuisance tripping and the associated food spoilage, the same exemption can also apply to freezers.

### Rule 26-706 Tamper-resistant receptacles

### Receptacles in child care facilities

A childcare facility is a facility that requires a license under the *Early Learning and Child Care Act* and its regulations.

### Rule 26-722 Receptacles for dwelling units

Safety codes officers have raised concerns about the possibility of damage to non-metallic sheathed cable feeding receptacles in island counters not permanently fixed to the building structure.

Some building contractors are designing island counters so that they may be easily moved to different locations in a kitchen. A movable island counter is not a "fixed island counter" and therefore does not require a receptacle as outlined in Rule 26-722 d) iv). Island counters are deemed to be "fixed" when secured to the structure with nails, screws or equivalent method.

Electrical contractors should consult with the building contractor to determine if the kitchen island counter is movable or fixed, and should only install receptacles in fixed island counters.

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# Electrical

# 2021 Canadian Electrical Code, Part I, Section 28 – Motors and generators

Date Issued: 1 February 2022

Page 1 of 2

## Purpose

This clarifies select rules of Section 28 of the Canadian Electrical Code, Part I which applies to the installation, wiring methods, conductors, protection, and control of electric motors and generators.

## General

### Motors controlled by variable frequency drives (VFDs)

Motors that have not been specifically tested as suitable to be operated by VFDs can cause various problems to both the customer's electrical system and the utility supply. Some of these concerns include motor overheating from reduced cooling capabilities due to slower fan speeds and from harmonic wave distortion. Harmonic wave distortion can reduce motor efficiency due to increased losses, increased heating of motors, circuit conductors and transformers, and increased stress on motor insulation. Consideration should also be given to what effects harmonic distortion could have on other areas of the plant such as power quality degradation, voltage dips, premature equipment failure, and interference with telephone or computer equipment.

Canadian Standards Association (CSA) Standard C22.2 No. 100-14 (R2019), Clause 13.4 states that in addition to the normal marking requirements, inverter duty machines (motors) shall be permanently marked. It reads as follows:

### 13.4 Marking

### 13.4.1

In addition to the marking requirements of Clause 6 and Clauses 8 to 10, inverter-duty machines shall be permanently marked with the following:

a) the machine application, e.g., inverter-duty motor;

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[Original Signed] Clarence C. Cormier, P.Eng.

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b) the speed range over which the machine is designed to operate or, if marked with a nominal speed at a nominal frequency, the frequency range over which the machine is designed to operate;

c) the type(s) of torque application for which the machine is designed, e.g., VT (variable torque), CT (constant torque), CHp (constant horsepower), or the equivalent; and

d) the type(s) of inverter with which the machine is intended to be used, e.g., VSI or VVI (6-step voltagesource), CSI (6-step current-source), VPWM (voltage-source pulse width modulated), CPWM (current-source pulse width modulated), LCI (load commutated), cycloconverter, or the equivalent.

### 13.4.2

Machines equipped with an integral inverter need not be marked in accordance with Clause 13.4.1 c) and d).

Considering that:

- motors intended for use with a Variable Frequency Drive should be suitable for operation by a VFD;
- Rule 2-024 of the Code requires that electrical equipment "be of a kind or type and rating approved for the specific purpose for which it is to be employed."; and
- CSA Standard C22.2 No. 100-14 has marking requirements for VFD rated motors,

<u>For new installations</u>, we should therefore ensure that motors and VFDs intended for use in a variable speed application be compatible and that motors are marked accordingly.

<u>For existing installations</u>, where motors are retrofitted to incorporate VFDs, owners are responsible for assessing the compatibility of the motor with the corresponding VFD. To facilitate ongoing operation and maintenance, owners are also encouraged to maintain a record of the compatibility assessment information.

# Rule 28-106 Insulated conductors - Individual motors, and

# Rule 28-108 Insulated conductors - Two or more motors

### Table 27 Duty Cycle

The insulated branch circuit conductors for an individual motor are normally sized to those values specified in Table D16 for the full load current rating of the motor. The exception is where a motor is designed and used for short-time, intermittent, periodic or varying duty, under the specific conditions as shown in Table 27. In addition, a motor application is considered one of continuous duty unless the nature of the apparatus that it drives is such that the motor will not operate continuously under load during any condition of use.

Caution is advised where Table 27 is being applied, particularly when the use of insulated conductors rated less than 125% of the motor nameplate current rating are being considered. It would usually be necessary, in such cases, to have complete manufacturer's technical data for the motor and the apparatus driven to ensure that the operational conditions and design characteristics would be compatible with the reduced size of conductors.

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Electrical

# 2021 Canadian Electrical Code, Part I, Section 30 – Installation of lighting equipment

Date Issued: 1 February 2022

Page 1 of 2

# Purpose

This clarifies select rules of Section 30 of the 2021 Canadian Electrical Code, Part 1.

### Discussion

### Rule 30-302 Supports

### Luminaires on suspended ceilings

Consult the designer or building architect to confirm that adequate load-bearing characteristics are inherent in the suspended ceiling design to support the additional weight of the lighting fixtures.

Where lighting fixtures form part of an existing ornamental or suspended ceiling, they should be independently supported unless it can be established that the ceiling will suitably support the fixtures and any associated wiring material.

### **Rule 30-308 Circuit connections**

### Disconnect and retrofit/renovation installations for luminaires with double-ended lamps

Retrofit and renovation installations have consistently required clarification regarding the need for disconnects in existing luminaires utilizing double-ended lamps connected to a ballast or driver.

Any existing luminaires utilizing double-ended lamps connected to a ballast or driver and rated over 150 volts-toground, which are disconnected then reconnected (at the same location or not) are considered to be installed as a new luminaire and therefore require disconnects.

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[Original Signed] Clarence C. Cormier, P.Eng.

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Retrofit jobs whereby luminaires utilizing double-ended lamps connected to a ballast or driver and rated over 150 volts-to-ground, having modifications made for energy conservation purposes will also require disconnects (Reapproval as per STANDATA 21-ECB-002 may also be required).

Simple ballast or driver replacements for maintenance purposes would not be considered as requiring a disconnect by the literal interpretation of the code rule, however, owners and contractors are encouraged to provide luminaire disconnects in these situations.

### Rule 30-314 Minimum height of low luminaires

Following are guidelines for applying Rule 30-314:

- (a) A rigidly mounted ceiling luminaire in a readily accessible location should be no less than 2.1 metres above the floor if the lamp is not guarded.
- (b) A rigidly mounted ceiling luminaire should be located so that the bottom of the luminaire is no less than 2 metres above the floor.
- (c) Rigidly mounted wall luminaires with outer globes or other enclosures may be located at a lesser height, since the wall provides some protection against people walking directly under or adjacent to them. In no case should the bottom of the luminaire be less than 1.8 metres above the floor. Where a wall-mounted luminaire is installed over a cabinet or vanity, it is considered to be protected by location. A luminaire over the vanity in a bathroom should be kept at least 1 metre from the tub or shower enclosure.

### Rule 30-320 Lighting equipment in damp locations or near grounded metal

### Switches in bathrooms

Although the rule references only switches controlling lampholders and luminaires, it is also considered to apply to switches controlling heat lamps, exhaust fans, and other equipment.

Note: A steam room is considered the equivalent of a shower or bathtub for the purposes of Rule 30-320 3).

### Rule 30-500 Reserved for future use

### Location of lighting equipment and controls in buildings of residential occupancy

Requirements for the placement and control of lighting equipment for residential occupancies has been removed from the Canadian Electrical Code, Part I, beginning with the 2021 edition. The requirements for the location and control of lighting equipment in buildings of residential occupancy can be found in the latest edition of the National Building Code – Alberta Edition. The change was made to delete duplication between the two Codes and also removes an obstacle to new technologies such as wireless switching.

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Electrical

# 2021 Canadian Electrical Code, Part I, Section 32 – Fire alarm systems, smoke alarms, carbon monoxide alarms, and fire pumps

Date Issued: 1 February 2022

Page 1 of 2

# Purpose

This clarifies select rules of Section 32 of the 2021 Canadian Electrical Code, Part 1.

## Discussion

### Rule 32-000 Scope

Regarding fire pumps, all pumping equipment used in sprinkler, hose and standpipe systems that are required by the National Building Code – Alberta Edition to either boost the pressure or to pump from a standing water source are considered to be "fire pumps". This includes pumps used at various levels in high rise buildings, but does not include maintenance pumps (jockey or makeup).

### Rule 32-200 Installation of smoke alarms and carbon monoxide alarms in dwelling units

The National Building Code – Alberta Edition sets the requirements for the location of smoke alarms within dwelling units. This includes provisions for smoke alarms on each floor level of a dwelling unit, including basements and sleeping rooms. Where more than one smoke alarm is installed in a residence, the National Building Code – Alberta Edition requires that they must be interconnected.

Where a smoke alarm circuit in a combustible building is supplied from a Class 2 power supply, the interconnection of the smoke alarms is permitted to be an approved Class 2 wiring method. However, extra-low-voltage control cable (such as Type LVT, rated 30 volts maximum) is not permitted to enter boxes, fittings or enclosures containing insulated conductors connected to circuits of a higher voltage.

Regular residential smoke alarms normally require a 120 volt connection from a 15 ampere circuit. Rule 32-100 requires that the insulated conductors be of copper with an ampacity adequate to carry the maximum current provided by the circuit; therefore No. 14 American Wire Gauge (AWG) or larger.

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[Original Signed] Clarence C. Cormier, P.Eng.

Alberta Municipal Affairs – Technical and Corporate Services Phone: 1-866-421-6929 Email: safety.services@gov.ab.ca

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### Interconnection of smoke alarms with carbon monoxide Alarms

Some manufactures supply smoke alarms and carbon monoxide alarms that can be interconnected. Although the Canadian Electrical Code, Part I does not specifically address this practice, the installation may be permitted provided certain precautions are taken:

- 1. Each device is approved.
- 2. Each device is suitable for interconnection with each other (consult manufacturers' literature for each device).
- 3. Each device is installed according to Rule 32-200 and the manufacturers' instructions.

### Rule 32-304 Service box for fire pumps

When separate consumer services are installed for fire pumps, the installation should be coordinated with the electric utility concerned.

For further information pertaining to the electrical installation of fire pumps, reference should be made to the current National Building Code – Alberta Edition, which references the National Fire Protection Association (NFPA) Standard #20 Centrifugal Fire Pumps.

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Electrical

# 2021 Canadian Electrical Code, Part I, Section 36 – High-voltage installations

Date Issued: 1 February 2022

Page 1 of 1

## Purpose

This is to clarify Rule 36-308 of the 2021 Canadian Electrical Code, Part 1.

### Discussion

### Rule 36-308 Connections to the station ground electrode

The boundary of a station <u>located indoors</u> is limited to the equipment and the equipment enclosure. For the purposes of bonding non-current-carrying metal parts inside the building not deemed part of the station, Section 10 applies.

Industry is reminded to consider limiting touch and step potential according to the tolerable levels specified in Table 52.

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[Original Signed] Clarence C. Cormier, P.Eng.

Alberta Municipal Affairs – Technical and Corporate Services Phone: 1-866-421-6929 Email: safety.services@gov.ab.ca

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Electrical

# 2021 Canadian Electrical Code, Part I, Section 60 – Electrical communication systems

Date Issued: 1 February 2022

Page 1 of 2

# Purpose

This clarifies select rules of Section 60 of the 2021 Canadian Electrical Code, Part 1.

### Discussion

### Rule 60-000 Scope

Section 60 applies to wiring and equipment of the consumer's portion of a communication installation. Before installing an electrical communication system on a consumer's premises intended to be connected to a communication network, the appropriate communication utility should be consulted. The communication utility will provide the necessary information for an acceptable demarcation point between the consumer's and the utility's portion of the installation.

### Rules 60-302 to 60-334 Inside conductors

Although rules regarding the installation of communication circuits inside do not specifically state that boxes and enclosures are required, note that Section 60 is supplementary to other rules of the code. Rule 2-202 states that bare live parts shall be guarded against accidental contact and applies to communication circuits as well as others.

Connections for communication circuits are, therefore, to be enclosed in a suitable manner to prevent accidental contact.

### Rule 60-314 Communication conductors in ducts and plenum chambers

A raceway is sometimes used to enclose communication cables run in plenums (described in Rule 12-010 3)) because the cables do not have the proper flame spread requirements of Rule 2-130. Concern has been expressed regarding the difficulty in terminating the conduit and cable at the top of a pole type multi-outlet assembly.

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[Original Signed] Clarence C. Cormier, P.Eng.

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Discussions with the building discipline have concluded it is acceptable to terminate the raceway adjacent to the pole and run the cables open for a distance not exceeding 300 millimetres to facilitate entry.

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## **STANDATA bulletin 21-ECB-062**

Electrical

#### 2021 Canadian Electrical Code Part I, Section 62 – Fixed electric heating systems

Date Issued: 1 February 2022

Page 1 of 3

#### Purpose

This clarifies select rules of Section 62.

#### Discussion

#### Rule 62-126 Field repair, modification, or assembly of series trace heater sets

Industry has requested clarification of required information on permanent tags. The following information is provided to assist industry with permanent tag information and installation.

#### Field repair

As per Rule 62-126 2) b) for industrial establishments, when the total length of the heating portion of the trace heater sets is not changed by more than three percent, no additional tag is required.

#### Field modification or assembly

Rule 62-126 2) c) i) requires a permanent tag with new design information to be installed on series trace heater sets for industrial establishments that have been field modified or field assembled. Although the design information is not specified in the rule, Canadian Standards Association (CSA) Standard C22.2 No. 130-16 provides guidance as to the marking of field-assembled trace heater sets. Minimum marking requirements on the permanent tag should include:

- 1. the manufacturers name
- 2. the word "series" and usage markings
- 3. the rated voltage

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- 4. the rated output in watts per unit length or area and the specified temperature for that output for those trace heating devices that vary their power output with temperature
- 5. the maximum permissible steady-state current
- 6. a reference number or other similar identification which relates to a permanent record of the assembly or modification

Nameplates bearing the original markings must not be removed. The new permanent tag should be installed directly beside the original nameplate.

The permanent tag must be clearly legible and suitable for the environment (outdoors, corrosive environment, etc.).

For repairs of series trace heater sets in other than industrial establishments, Rule 62-126 3) applies. It requires a repair tag, supplied by the original manufacturer, be permanently attached beside the original tags.

#### Rule 62-212 Installation of trace heater sets and heating panel sets

#### Flexible Heating Panels

Several fires in Canada have been attributed to the improper installation of flexible heating panels. Although the actual cause for such fires is yet to be determined, investigations have revealed the need for extreme care with installation practices.

The following practices are necessary to reduce the risk of fire or product failure:

- 1. Flexible heating panels are to be installed by qualified persons.
- 2. The work of the various trades involved in the installation process must be coordinated. The installation of the electric heating panels, the construction practices involved in the area where the panels are located, the type of insulation used, etc. are critical to the safety of the final installation.
- 3. It is strongly recommended that the heating panel manufacturer or representative be directly involved in the installation to ensure the product, building construction, and the insulation type are correct for the heating product to operate safely.
- 4. Permits for a flexible heating panel installation should identify the type of heating panel used.
- 5. Resistance measurements taken in compliance with the manufacturer's instructions are to be in the form of a permanent record at either the panelboard location or the thermostat location.

#### Other heating systems

#### Rule 62-400 Trace Heater sets and heating panel sets installed within pipes, ducts, or vessels

#### Immersion heaters

An incident involving an immersion heater installed in an oilfield tank is cause to alert industry of a potential problem with the installation of immersion heaters. An investigation of the incident has revealed the level of the liquid was lowered to a point where some of the heater elements were exposed. The flashpoint of the fluid in the tank was approximately 60° celcius and its auto-ignition temperature was 380° celcius. When temperature control called for the heater to operate, the elements near the surface caused the fluid to vaporize (flash). The vaporized fluid, mixed with the air present in the tank, created a flammable atmosphere and some of the elements of the immersion heater were exposed to the flammable atmosphere. The heater elements are mineral insulated (MI) construction (typical for immersion heaters) that can operate at high temperatures, significantly above the ignition temperature of the flammable gas mixture. The oilfield tank atmosphere was ignited, resulting in an explosion and the collapse of the tank. Personnel were able to vacate the area with no injury. Failure or misapplication of an electric immersion heater was determined to be responsible for the ignition. An unofficial survey within the oil and

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gas sector has identified a number of similar incidents where immersion heaters were suspected to be the cause of an unwanted fire/explosion.

Since there is no Canadian standard specific for process immersion heaters, certification bodies certify them to an "Other Recognized Document" (ORD). In the testing procedures, the heating elements are assumed to be immersed in a liquid all the time, and the testing for maximum temperature (or temperature code) is for those parts of the heater that are exposed to the atmosphere. The heating elements themselves are not temperature tested. Additionally, tests for conductor temperature rating at the heater connection point are made. Since these specific types of process heaters are semi-custom, the certifier engages in technical discussions with the manufacturer on specifics for testing such as the materials or range of materials for immersion and the environment. It was suggested that a test be made for the heater element temperature in air, however it was deemed unnecessary because:

- a) the heater elements are assumed to always be within the liquid, and
- b) the current test procedure is consistent with other certification bodies.

As part of the certification, the manufacturer is required to put warning statements in the instruction manual and a caution label on the product that a liquid level and/or high temperature limit control must be used to deenergize the heater. Manufacturer documentation contains these instructions and warnings, and therefore they become a requirement for installation. The certification body verifies that the documentation contains the appropriate instructions and warnings. Typical Tank Immersion Heater

It is a user responsibility to ensure the elements remain immersed while in operation by installing level controls and/or have a high temperature limit control on the elements. Therefore:



- 1. Electric immersion heaters need to be installed with a high integrity liquid level control to ensure the element does not become un-immersed and/or a surface temperature limit device to de-energize the heater if the elements become un-immersed.
- 2. Other installations of process immersion heaters should be investigated for potential similar misapplications.

#### 62-402 Overcurrent protection of storage-tank water heaters and conductors

Users are reminded that Rule 62-402, and the subsequent reference to Rule 64-114, is intended to be used for determining the rating or setting of overcurrent devices and to ensure proper protection for insulated conductors supplying only heating equipment. Demand factors for determining service calculations are contained in the appropriate Rules of Section 8, Circuit loading and demand factors.

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## **STANDATA bulletin 21-ECB-068**

Electrical

#### 2021 Canadian Electrical Code, Part I, Section 68 - Pools, tubs, and spas

Date Issued: 1 February 2022

Page 1 of 2

#### Purpose

This clarifies select rules of Section 68 of the Canadian Electrical Code, Part 1.

#### Discussion

#### Rule 68-058 Bonding

Although there may be no electrical equipment or electrical wiring associated with a pool during the initial stages of construction, the likelihood of introducing electrical equipment in the future is high. When electrical equipment is added later, it becomes very difficult, if not impossible, to bond the structural or reinforcing steel at that time. It is therefore recommended that the structural and reinforcing steel be bonded for all swimming pools at the initial stages of construction in accordance with Rule 68-058, even though electrical equipment or electrical wiring is not involved.

#### Rule 68-308 Other electric equipment

#### Pumps for hydromassage bathtubs

The location of the pump for hydromassage bathtubs must comply with Rule 2-122. It states: "Electrical equipment shall be so installed as to ensure that after installation there is ready access to nameplates and access to parts requiring maintenance."

To comply with Rule 2-122, pumps, or any other electrical equipment, for hydromassage bathtubs are to be readily accessible. This could be in the form of a removable panel or other similar arrangement that will provide suitable access.

#### Spas and hot tubs

#### Rule 68-400 General

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[Original Signed] Clarence C. Cormier, P.Eng.

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There are two options for installing a spa or hot tub. One is to apply the requirements of Rule 68-408 for field assembled units and the other is to install a pre-manufactured unit and supply power to it accordingly.

<u>Pre-manufactured units</u> must be certified as a complete package to the appropriate Canadian recognized standard (CAN/CSA-C22.2 No. 218.1 – *Spas, Hot Tubs, and Associated Equipment*). This standard contains the requirement for ground fault circuit interrupter (GFCI) protection. The manufacturer has the option of either including GFCI protection as an integral part of the hot tub or providing a cautionary marking to the effect that GFCI protection must be provided by the installer. Regardless of which method is chosen by the manufacturer, you are cautioned to ensure that a ground fault circuit interrupter ultimately protects any electrical equipment and forms an integral part of a manufactured spa or hot tub. This is consistent with the requirements of Rule 68-068.

Furthermore, *certified* pre-manufactured spas and hot tubs are identified as certified by an acceptable certification mark found on the nameplate located on the outside of the spa or hot tub. Certification marks located on associated equipment identify the equipment as certified but do not suggest that the entire spa or hot tub unit is certified. In situations where a certification mark cannot be found on an exterior nameplate, even though the associated equipment is certified, the spa or hot tub must be considered a field assembled unit subject to the requirements of Rule 68-408.

<u>Field-Assembled Units</u> are normally assembled or built on the site where it is intended to operate. There may be situations where spas and hot tubs are assembled in a manufacturing setting and transported for permanent installation at a field site. In either case, the spa or hot tub must meet the requirements of Rule 68-408 with all associated equipment specifically approved for use with spas and hot tubs in accordance with Rule 68-408 2).

The Code requirements for field-assembled spas and hot tubs are in keeping with standard CAN/CSA-C22.2 No. 218.1. It is important to note that the General Rules of Section 68 (Rules 68-050 to 68-070) apply to all pools, including hot tubs and spas, as outlined in Rule 68-000. This includes the requirement for GFCI as per Rule 68-068.

<u>Electrical permits</u>, regardless of whether the spa or hot tub is pre-manufactured or field-assembled, are required from the inspection authority having jurisdiction. Inspectors will be responsible for determining the depth of inspection based on the type of installation.

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## **STANDATA bulletin 21-ECB-076**

Electrical

#### 2021 Canadian Electrical Code, Part I, Section 76 – Temporary wiring

Date Issued: 1 February 2022

Page 1 of 2

#### Purpose

This clarifies select rules of Section 76 of the 2021 Canadian Electrical Code, Part 1.

#### Discussion

#### Rule 76-006 Service entrance equipment

#### Support for temporary construction service equipment

Inadequate support of service entrance equipment for temporary power on construction or demolition sites often results in equipment damage and failure and presents a potential safety hazard. To minimize the occurrence of an incident, modifications to the supporting structure should be done on de-energized equipment. The following guidelines are recommended for supporting temporary services:

- 1. Temporary services of 200 amperes or less, not mounted on a building and intended for overhead connection, should be mounted on a pole, or solid wood post not less than 89 millimetres by 140 millimetres.
- 2. Set the pole or post solidly into the earth to a depth of at least 1.2 metres. Brace as necessary to provide enough strength to support the supply service conductors and to support the potential for a person on a ladder making a power connection.
- 3. Maintain required clearances for overhead supply conductors in compliance with Rule 6-112 3).
- 4. Provide additional supporting structures for service equipment larger than 200 amperes; self-supporting, weatherproof, skid-mounted units are also acceptable.
- 5. Mount service equipment intended for connection to an underground supply service on a solidly braced post or structure.

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[Original Signed] Clarence C. Cormier, P.Eng.

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6. Coordinate the installation of the consumer's service conductors and the supply service conductors in accordance with the requirements of the supply authority.

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# INTERPRETATIONS

## **STANDATA interpretation 21-ECI-064**

Electrical

#### 2021 Canadian Electrical Code, Part I, Section 64 – Renewable energy systems

Date Issued: 1 February 2022

Page 1 of 8

#### 1. Rules 64-210, 64-216, and 2-200

#### **Purpose:**

This clarifies the requirement for solar photovoltaic (PV) direct current (dc) arc-fault protection and how it relates to rodent damage.

#### **Discussion:**

Solar PV system dc arc-fault protection is designed to detect and mitigate the effects of arcing faults that can pose a risk of fire ignition under certain conditions if the arcing persists. This may be the result of a failure of (or damage to) a conductor, connection, PV module or other system component.

The dc arc-fault protection required under Rule 64-216 provides series arc-fault protection. This position is supported by the rule's requirement to detect and interrupt arcing faults resulting from a "failure of the intended continuity of a conductor".

Solar PV inverters sold in Canada are manufactured under a number of standards. Standard CSA C22.2 No. 292 dc arc-fault protection for photovoltaic applications has recently been published. Prior to its development, manufacturers followed CSA Technical Information Letter T.I.L. M-07 and the UL1699B standard for photovoltaic dc arc-fault circuit protection. These standards describe testing for both Type 1 series arc-fault protection and Type 2 parallel arc-fault protection.

However, only series faults are required to be detected and protected against by current electrical codes. For this reason, today's Type 1 PV inverters are only certified to detect and interrupt series arc-faults. When the inverter senses a series arc-fault within the specified fault value ( $\geq$  300 watts), the inverter shuts down and stops current flow in the entire circuit feeding into that inverter, effectively quenching the arc. This arc-fault protection is provided for the entire run of dc conductors from the inverter to the module, inside the module and the

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[Original Signed] Clarence C. Cormier, P.Eng.

Alberta Municipal Affairs – Technical and Corporate Services Phone: 1-866-421-6929 Email: safety.services@gov.ab.ca

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connections between modules. When this occurs, the inverter provides a fault message and must be reset manually. Each string in the PV system feeding that inverter must be inspected for faults as per the manufacturers' installation manual.

A certified dc arc-fault protective device can also be embodied in a number of ways such as in a combiner box. Module integrated products are in development stages, but are not yet readily available due to a number of technical challenges.

#### Code Reference

#### C22.1:21 – 2021 Canadian Electrical Code, Part I

#### 2-200 General

Electrical equipment shall be installed and guarded so that adequate provision is made for the safety of persons and property and for the protection of the electrical equipment from mechanical or other damage to which it is liable to be exposed.

#### 64-210 Wiring method

5) Where the dc arc-fault protection referred to in Rule 64-216 is not located at the module, photovoltaic source circuit conductors and cables installed on or above a building, and installed in accordance with Subrules 1), 2), and 3) shall be provided with mechanical protection, in the form of an enclosed raceway or other acceptable material to protect against damage from rodents.

#### 64-216 Photovoltaic dc arc-fault circuit protection

1) Solar photovoltaic systems with a dc source or dc output circuit voltage of 80 V or greater when calculated in accordance with Rules 64-202 1) or 2) shall be protected by

- a) a dc arc-fault circuit interrupter; or
- b) other system equipment that provides equivalent protection.
- 2) The protection required in Subrule 1) shall
  - a) detect and interrupt arcing faults resulting from a failure in the intended continuity of a conductor, connection, photovoltaic module, or other system component in the dc photovoltaic source and output circuits;
  - b) not have the capability of being automatically restarted;
  - c) have annunciation, without an automatic reset, that provides a visual indication that the circuit interrupter has operated; and
  - d) disable or disconnect
    - i) inverters or charge controllers connected to the faulted circuit when the fault is detected; or
    - ii) the photovoltaic dc source circuits or dc output circuits either within the combiner, at the module junction box, or at the module cable connectors.

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#### Application

This interpretation applies to rodent protection of photovoltaic source circuit conductors and cables installed on or above a building.

#### Interpretation:

#### Subrule 64-210 5)

This Subrule indicates that where the dc arc-fault protection referred to in Rule 64-216 is not located at the module. PV source circuit conductors and cables installed on or above a building require mechanical protection against damage from rodents. Detection and interruption of arc-faults provided by shutdown of an approved Type 1 inverter (or other certified component) referenced in Rule 64-216 are required to quench a series arc-fault. This is accomplished throughout all of the PV source circuits and PV output circuits connected to that inverter. Because of the protection provided by the inverter (or other certified component), up to and including at the module, there is no requirement for additional rodent protection **above what would be normally required by Rule 2-200 to protect equipment and cables from damage from environmental hazards which may be present (such as the presence of rodents and wildlife)**, when equipment compliant with Rule 64-216 is installed.

#### Rule 2-200

Even when arc-fault protection has been provided under the terms of Rule 64-216, **Rule 2-200 requires that** electrical equipment be guarded from mechanical or other damage to which it is liable to be exposed. For solar PV systems, the owner and designer are responsible to identify the likelihood of damage from any means (including rodents) on the specific site of installation. Those specific individual site conditions will dictate the requirement for installation of protection.

For example, a solar array installed on a roof of a house surrounded by mature trees would be a strong candidate for rodent protection compared to an installation on the roof of an industrial building of non-combustible construction.

Caution must be exercised in the application of rodent protection in certain conditions. In flat roof ballasted systems, there is a potential risk of increased wind loading. Racking systems have specific wind tunnel testing to generate wind coefficients but may not include additional mesh/fencing that could create wind drag and change the wind behavior and dynamics of the original design. This could potentially void the engineered racking design. There is also a high likelihood that energy production would be reduced and temperatures increased due to restricted air movement under the array during warmer weather.

For projects with professional involvement, this responsibility to identify the risks and the protection system should fall on the designer and should be fully acknowledged by the owner. It is strongly recommended that the installer consult the local Authority Having Jurisdiction well in advance to discuss the need for, and the type(s) of, additional protection required. No matter what type of equipment is installed, the owner should be made aware that regular inspections of the system are essential.

#### 2. Rules 64-218 sub rules 1) through 4)

#### **Purpose:**

This clarifies which systems require photovoltaic rapid shutdown (RSD) as well as the approval requirements for equipment and systems used for this purpose.

#### **Discussion:**

It is important to consider that RSD rules specifically deal with shutdown to mitigate electrical and fire safety hazards **for emergency responders**. Other rules of the Canadian Electrical Code, Part I (CE Code) deal with disconnecting means and isolation for fire and shock hazards for maintenance and operation. The changes include controlling conductors extending from a PV array to a new specific level (not actually fully shut down), a tighter and more clearly defined boundary for controlled conductors, and new location requirements for rapid

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shutdown initiation devices. There are also newly referenced product standards for the RSD equipment and systems.

#### Rapid shutdown boundary illustrations:



#### **Code Reference**

#### C22.1:22 – 2021 Canadian Electrical Code, Part I

#### 64-218 Photovoltaic rapid shutdown (see Appendix B)

1) Photovoltaic rapid shutdown shall be provided for a photovoltaic system installed on or in buildings where the photovoltaic source or output circuit insulated conductors or cables installed on or in buildings are more than 1 m from a photovoltaic array.

2) Notwithstanding Subrule 1), photovoltaic rapid shutdown shall not be required for ground-mounted photovoltaic system circuits that enter a building whose sole purpose is to house photovoltaic system equipment.

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3) Photovoltaic rapid shutdown shall limit photovoltaic source or output circuits located more than 1 m from the photovoltaic array to not more than 30 V within 30 s of rapid shutdown initiation.

- 4) A device used to initiate photovoltaic rapid shutdown shall be readily accessible and located
  - a) for single dwelling units, at the supply authority meter location;
  - b) for other than single dwelling units, at the consumer's service equipment or supply authority meter location, and
    - i) at a permanent access to a building roof where an array(s) is installed; or
    - ii) within sight and within 9 m of the array(s); and
  - c) for a stand-alone system, in accordance with Items b) i) and ii).

5) The location of the device used to initiate photovoltaic rapid shutdown shall be shown on the diagram required in Rule 84-030 2).

6) A label indicating that the photovoltaic system is equipped with photovoltaic rapid shutdown shall be installed at the supply authority meter location and at the consumer's service equipment location.

#### Appendix B

#### Rule 64-218

The requirements for a photovoltaic rapid shutdown system are given in CSA C22.2 No. 330.

#### Rule 64-218 3)

The intent of Subrule 3) is to limit photovoltaic source or output circuits to not more than 30 V within 30 s of rapid shutdown initiation, where the voltage and power are measured between any two photovoltaic source or output circuit conductors, and between any photovoltaic source or output circuit conductors and ground.

#### Application

This interpretation applies to photovoltaic rapid shutdown for photovoltaic systems installed on or in buildings.

#### Interpretations:

#### Is rapid shutdown function required on every system?

It is important to consider which systems require rapid shutdown. Once the controlled conductors extend beyond 1 metre from the PV array inside or outside a building, rapid shutdown control of these conductors is required. If a string inverter or micro-inverters are placed inside the boundary, this would result in no controlled conductors leaving the boundary. As such, no rapid shutdown functionality is necessary and none of the initiating devices required by Rule 64-218 4) would be required. See sub-rule 2) for ground mount systems.

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#### What equipment can be used for Rapid Shutdown?

Devices that act as photovoltaic rapid shutdown systems (PVRSS) or photovoltaic rapid shutdown equipment (PVRSE) must be certified to CSA C22.2 No. 330-17. The scope of the standard specifies requirements for PVRSS and PVRSE (components) intended to be used in ordinary locations in accordance with the CE Code and rated 1500 volts or less. This standard is intended to be used in conjunction with the inverter standard CSA C22.2 No. 107.1-16 (R2021) Power Conversion Equipment.

Off-the-shelf components (such as an ordinary contactor) cannot be used as rapid shutdown equipment. However, initiation devices that would interrupt the inverter ac (alternating current) output circuit such as a certified disconnect switch, circuit breaker or control switch do not specifically need to be certified as RSD equipment. Some existing service equipment may be able to provide dual function.

#### Can you use rapid shutdown components from different manufacturers to make a system?

Certified rapid shutdown equipment on its own does not guarantee CE Code compliance. If only each piece of equipment is certified, it is unknown whether it will work as a system. Each piece of equipment must interact with other pieces of equipment to perform Rapid Shutdown. This includes the inverter, which must also be evaluated for compatibility with the respective equipment or system. The C22.2 No. 330-17 standard indicates that the operability of complete rapid shutdown systems built from individual devices covered under the standard has not been determined. These compatibility evaluations are up to the manufacturers, and equipment that can be used together must be referenced in the installation manuals for the equipment.

#### What can be used as a rapid shutdown initiator?

The system needs a switching device which is "manually activated by an operator" to initiate rapid shutdown process.

The RSD initiator must have a visual status indication that the PV conductors are in the controlled state. This could be a status light, a display readout or permanent marking on a switch to identify its current position. The status indicator "shall be located near the actuator to ensure the operator can view the system status in a timely manner" - C22.2 No. 330.

#### The initiator could be:

- A control switch that is a part of a complete rapid shutdown system;
- Service disconnecting means (the main breaker) on a load side connected system;
- PV system disconnecting means (the dc switch on the inverter);
- A properly rated switch that plainly indicates whether it is in the "off" or "on" position; or
- Depending on system capacity, a small ac disconnect switch up to a large ac disconnect switch with integral shunt trip capability.

The location of the initiation device must meet Rule 64-218 4).

#### The initiator cannot be:

- A pull-out type of switch (such as those used for air conditioners)
- The electrical meter (pulling the meter)

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#### 3. Rule 64-222 and Electrical Code Regulation, Section 2

#### Purpose:

This clarifies the approval requirements for photovoltaic systems racking and rails.

#### Discussion:

PV racking products have appeared in Alberta that have no evidence of approval and without manufacturer's installation instructions.

The racking of a modern PV system is part of a bonding grid with the rail or rack itself utilized as a bonding path. Modules are attached with clamps complete with bonding clips that, when bolted down, simultaneously secure the equipment to the rail and electrically bond adjacent modules and the underlying rail. Module level power electronics such as micro-inverters and dc-dc optimizer bonding can also be accomplished utilizing this method. This system eliminates separate bonding conductors connected to each piece of equipment and minimizes running equipment bonding conductors throughout PV arrays. A single bonding conductor is run to the array and would be connected at one or more points of the rack or rail following the manufacturer's installation instructions.

#### Code Reference

#### C22.1:21 – 2021 Canadian Electrical Code, Part I

#### 64-222 Photovoltaic module bonding (see Appendix B)

1) Exposed, non-current-carrying metal parts of photovoltaic modules shall be bonded in accordance with Section 10.

2) Module bonding connections shall be as specified in the module installation manual.

3) Notwithstanding Subrule 2), bonding connectors intended for bonding photovoltaic modules and installed in accordance with the manufacturer's instructions shall be permitted to be used.

4) The connections to a photovoltaic module shall be arranged so that removal of a single photovoltaic module from a photovoltaic source circuit does not interrupt bonding continuity to the inverter or controller.

5) The connections to an inverter or controller shall be arranged so that removal of either the inverter or controller does not interrupt bonding continuity.

#### Appendix B

#### Rule 64-222

CAN/CSA-C22.2 No. 61730-1 requires all conductive parts of a module that are accessible during normal use to be bonded together and the method of bonding to be detailed in the installation manual. During the approval process, all components, such as bonding clips, brackets, hardware, lugs, etc., used for bonding are tested in accordance with CAN/CSA-C22.2 No. 61730-2.

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#### Application

This interpretation applies to photovoltaic racking systems for use in Alberta.

#### Interpretation:

PV module racking systems are required to be approved. Any one of these approval processes are currently acceptable for PV racking systems:

- a) Certified by a certification body accredited by the Standards Council of Canada;
- b) Special inspection by an inspection body accredited by the Standards Council of Canada under SPE 1000 to test for bonding/grounding with a separate structural engineering evaluation for the structural capabilities of the racking.

An array is an assembly of specific compatible components that have been tested as a system. All the parts of an array such as modules, racks and clamps are listed as "components" intended for use in end-product equipment. When an end-product evaluation is conducted by a certification organization, the suitability of these components is determined in that evaluation. Standards UL 2703 for racking, ULC/ORD-C1703 for modules and CSA-C22.2 No. 41 bonding and grounding equipment are all used together to investigate products as a system.

In order for the terms of the equipment approval agreement to be met, the manufacturer must provide installation instructions, and those instructions must be followed. The instructions will address the structural and electrical installation along with information about compatibility of components for use with their racking system.

For example, the installation manual may have a list of specific manufacturer's modules that are compatible with the racking system. You may also be able to use any ULC/ORD-C1703 module as long as they are within specific dimensional tolerances. Only those modules that meet the criteria laid out in the installation manual can be used with that racking system. Bonding must be completed using the methods and devices (such as lay-in lugs and washers) as specified in the manuals.

When applying for a PV system permit, applicants should provide the Authority Having Jurisdiction with a complete list of all equipment. Installation manuals should be reviewed pre-construction and referenced during the installation to ensure that the system has been installed according to the manufacturer's instructions and all the equipment is compatible.

#### Ground Mount Systems and Carports

It is common for ground mount system manufacturers to utilize UL 2703 racking equipment and CSA-C22.2 No. 41 bonding and grounding equipment. The structural element requirements would be met with professional involvement with a site specific stamped structural drawing. Large ground mount systems are custom designed for the site with local consideration for terrain, wind pressures, snow loads, as well as racking layout for the most efficient design. For smaller low-risk ground mount systems such as those found on farms, professional involvement is normally not required for the mounting structure.

This INTERPRETATION is applicable throughout the Province of Alberta.

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## **STANDATA interpretation 21-ECI-086**

Electrical

#### 2021 Canadian Electrical Code, Part I, Section 86 - Electric vehicle charging systems

Date Issued: 1 February 2022

Page 1 of 2

#### **Purpose:**

This clarifies branch circuit conductor ampacities and overcurrent device settings for electric vehicle charging systems supplied with adjustable ampacity settings.

#### **Discussion:**

Some electrical vehicle charging stations are equipped with a variable load option. For example, the maximum load may be 100 amperes, 240 volts, single-phase whereas a lower demand load may be set, e.g. 40 amperes, 240 volts, single-phase.

Concerns have been expressed that if the branch circuit, including the overcurrent device and circuit ampacity, feeding the electric vehicle charging station is sized according to the lower demand load, the consumer may increase the demand load in the future to increase the charging rate, thereby overloading the branch circuit.

#### **Code References**

C22.1:22 – 2021 Canadian Electrical Code, Part I

#### 86-200 Warning sign

Permanent, legible signs shall be installed at the point of connection of the electric vehicle supply equipment to the branch circuit wiring, warning against operation of the equipment without sufficient ventilation as recommended by the manufacturer's installation instructions.

#### Application

This interpretation applies to electric vehicle charging systems with adjustable ampacity settings.

Unless stated otherwise, all Code references in this STANDATA are to the Canadian Electrical Code, Part 1, 2021.

Issued by the Provincial Electrical Administrator

[Original Signed] Clarence C. Cormier, P.Eng.

Alberta Municipal Affairs – Technical and Corporate Services Phone: 1-866-421-6929 Email: safety.services@gov.ab.ca

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#### Interpretation:

Research indicates that manufacturer's instructions require that an electrician set the load. This may be acceptable provided that, in addition to any code required warning signs, a warning sign is provided to indicate the maximum demand load setting of the electric vehicle charging station.

This INTERPRETATION is applicable throughout the province of Alberta.



# VARIANCES

## STANDATA variance 21-ECV-002-2-024-MMTE

Electrical

## 2021 Canadian Electrical Code, Part I, Rule 2-024 Use of approved equipment – Meter mounted transfer equipment

Date Issued: 1 February 2022

Page 1 of 3

#### Purpose

This variance addresses issues with the approval requirements for Meter Mounted Transfer Equipment and the limitations in quantity of units permitted for Field Evaluation by SPE-1000.

#### Discussion

Rule 2-024 requires electrical equipment to be approved. Section 2 of the Electrical Code Regulation mandates the approval requirements.

Rare situations exist where the requirement may be onerous or impracticable.

In the specific situation of Meter Mounted Transfer Equipment, no Canadian standard to evaluate this equipment currently exists. A US standard, UL 1008M, does exist, and inspection bodies are able to use this standard in conjunction with SPE-1000 to approve this equipment for Canada.

Efforts are currently underway to develop a Tri-National standard for Canada, the US, and Mexico based on the published version of UL 1008M.

In the meantime, demand for these units in Canada is steadily increasing which exceeds the 500 unit limitation of SPE-1000-1.2 c).

An interim solution would be to accept certification of these devices to UL-1008M and SPE-1000, while striking the 500 unit limitation.

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[Original Signed] Clarence C. Cormier, P.Eng.

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#### Code References

#### C22.1:21 - 2021 Canadian Electrical Code, Part I

#### Rule 2-024 Use of approved equipment

1) Electrical equipment used in electrical installations within the jurisdiction of the inspection department shall be approved and shall be of a kind or type and rating approved for the specific purpose for which it is to be employed.

2) Notwithstanding Subrule 1), equipment described in Rule 16-222 1) a) shall not be required to be approved.

#### **Electrical Code Regulation - Electrical systems equipment**

**2(1)** If a code, standard or body of rules declared in force under the Act with respect to electrical systems requires approved equipment, that equipment must meet the requirements of this section.

(2) No person shall manufacture, install, sell or offer for sale any equipment related to electrical systems for use in Alberta unless the equipment has been

- (a) certified by a certification body in accordance with the certification body's terms of accreditation with the Standards Council of Canada, or
- (b) inspected by an inspection body in accordance with the inspection body's terms of accreditation with the Standards Council of Canada.

(3) Subsection (2) does not apply to electrical equipment of an electric distribution system or a transmission line as defined in the *Hydro and Electric Energy Act.* 

(Note: "certification body" is defined as 'an organization accredited by the Standards Council of Canada as a certification body;' and "inspection body" is defined as 'an organization accredited by the Standards Council of Canada as an inspection body.')

#### CSA SPE-1000:21 Model Code for the field evaluation of electrical equipment

#### 1 Scope

1.2

The following are examples of where this Model Code applies:

c) equipment sold in quantities of not more than 500 on a national basis, per model, per year, per inspection body;

#### Application

This document specifically addresses meter mounted transfer equipment, which is designed to be installed between the electrical meter and the meter mounting device.

#### Variance

#### Rule 2-024 & SPE-1000

Item 1.2 c) of SPE-1000, which establishes a 500 unit limitation, shall not apply to Meter Mounted Transfer Equipment in Alberta until an applicable Canadian Standard has been published. The equipment shall otherwise meet the requirements of SPE-1000 as well as UL 1008M.

Persons contemplating the use of meter mounted transfer equipment are advised to check with their local supply authority to ensure the proposed installation is acceptable.

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This VARIANCE provides approximately equivalent or greater safety performance with respect to persons and property as that provided for by the *Safety Codes Act*.

This VARIANCE is applicable throughout the province of Alberta and remains in force until a Canadian standard for meter mounted transfer equipment is published.



### **STANDATA** variance 21-ECV-006-112

Electrical

## 2021 Canadian Electrical Code, Part I – Rule 6-112 Support for the attachment of overhead supply or consumer's service conductors or cables

Date Issued: 1 February 2022

Page 1 of 2

#### Purpose

This variance allows the continued practice of accepting rigid steel conduit in trade sizes 35 and larger for service masts in Alberta.

#### Discussion

Alberta has historically accepted rigid steel conduit in trade sizes 35 and larger to be used as a service mast, providing certain conditions are met. Rule 6-112 5) states that service masts must be assembled from components suitable for such use. (See the Appendix B note for this rule). To be acceptable, a service mast must be able to withstand the stresses it may be subjected to.

#### Application

This variance applies to service masts for the support of overhead supply or consumer's service conductors or cables.

#### Variance

#### Rule 6-112 Support for the attachment of overhead supply or consumer's service conductors or cables

In complying with Rule 6-112 5), rigid steel conduit in trade sizes 35 and larger may be used as a service mast provided:

1. The point of attachment for the supply service drop does not extend above the roof more than the following distances:

Unless stated otherwise, all Code references in this STANDATA are to the Canadian Electrical Code, Part 1, 2021.

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Conduit Trade Size	Distance Above Roof
35	450 millimetres
41	600 millimetres
53	900 millimetres

Notes: 1) If the distances above must be exceeded, an acceptable alternate type of service mast must be installed. To ensure an acceptable installation, consult with the inspection authority having jurisdiction.
2) Electrical metallic tubing and aluminum conduit are not suitable for use as a service mast.

- Where 35 and 41 trade size conduits are used, the stress imposed by aluminum neutral supported (NS) cable is minimized by ensuring that the NS cable is No. 4 AWG or smaller and the span does not exceed 30 metres in length with a sag of 450 millimetres at 15° Celsius.
- 3. The conduit is secured to the building with at least two "anchor" or "U" bolts spaced at least 450 millimetres apart with one placed near the roof line and the other near the meter socket. Standard conduit straps are not acceptable for this purpose.
- 4. A suitable roof jack is installed where the mast extends through the upper section of the roof.
- 5. The service drop is attached to the mast with an insulator located at least 300 millimetres above the roof surface and not more than 300 millimetres below the service head.

Where a supporting mast is installed at a distance greater than 600 millimetres from the outer edge of the roof, or the service drop extends away from the building at an angle less than 45° from the roof edge, the vertical clearances in Rule12-310 shall apply.

This VARIANCE is applicable throughout the Province of Alberta and remains in effect until revoked by the Administrator.

Alberta

### STANDATA variance 21-ECV-018-150

Electrical

## 2021 Canadian Electrical Code, Part I – Rules 18-150 and J18-150 Equipment in classified areas

Date Issued: 1 February 2022

Page 1 of 2

#### Purpose

This variance allows certain electrical equipment not certified for use in Zone 2 and Class I, Division 2 classified areas to be permitted, provided that maximum surface temperate rating requirements are met as per the Canadian Electrical Code, Part I.

#### Discussion

A re-write of Rules 18-150 2) and J18-150 2) occurred in the 2021 Canadian Electrical Code, Part I (CE Code). These are the acceptance rules for equipment not certified for use in Zone 2 and Class I, Division 2 classified areas respectively. This created an unintended consequence of excluding some electrical equipment that should have been included, notably certain capacitors and electrical devices used for instrumentation and measurement purposes.

The subject equipment as noted above is used in Zone 2 and Division 2 classified areas for petrochemical and oil and gas facilities (some extensively) and likely for other facilities as well. This error was realized too late to have it corrected for the 2021 CE Code, but a subject has now been approved for the 2024 CE Code. Not allowing this equipment to be used in the interim would prove problematic for industry.

The approved 2024 CE Code, Part I, wording for Section 18 and Annex J18 would form the basis of a Variance to accept this equipment in the interim.

#### **Code References**

CSA C22.2:21 – 2021 Canadian Electrical Code, Part I

18-150 Equipment, Zone 2 locations (see Appendices B and F)1) Electrical equipment installed in a Zone 2 location shall be in accordance with Table 18.

Unless stated otherwise, all Code references in this STANDATA are to the Canadian Electrical Code, Part 1, 2021.

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[Original Signed] Clarence C. Cormier, P.Eng.

 Alberta Municipal Affairs – Technical and Corporate Services

 Phone: 1-866-421-6929
 Email: safety.services@gov.ab.ca

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2) Notwithstanding Subrule 1) and Rule 18-052, the following shall be permitted:
 a) transformers, solenoids, coils, and similar electromagnetic devices that comply with the requirements of Rule 18-054;

#### CSA C22.2:21 - 2021 Canadian Electrical Code, Part I

#### J18-150 Equipment in Class I, Division 2 locations (see Annex JB)

- 1) Equipment installed in a Class I, Division 2 location shall be in accordance with Table 18.
- 2) Notwithstanding Subrule 1) and Rule J18-052, the following shall be permitted:
  a) transformers, solenoids, coils, and similar electromagnetic devices that comply with the requirements of Rule J18-054;

#### Application

This variance applies to electrical equipment for use in Zone 2 and Class I, Division 2 classified areas.

#### Variance

#### 1. Rule 18-150 2) Equipment, Zone 2 locations

In addition to the equipment contained in item a), the following equipment is allowable in Zone 2 locations, provided it also complies with the requirements of Rule 18-054:

- Capacitors that do not have integral fuses, such as those used for partial discharge monitoring, power factor correction, and harmonic reduction.
- Devices used for instrumentation and measurement purposes, including thermocouples, resistance temperature detectors (RTDs), piezoelectric pressure transducers and accelerometers, resistive strain gauges, passive RFID (radio frequency identification) tags, and similar equipment.

#### 2. Rule J18-150 2) Equipment in Class I, Division 2 locations

In addition to the equipment contained in item a), the following equipment is allowable in Class I, Division 2 locations, provided it also complies with the requirements of Rule J18-054:

- Capacitors that do not have integral fuses, such as those used for partial discharge monitoring, power factor correction, and harmonic reduction.
- Devices used for instrumentation and measurement purposes, including thermocouples, resistance temperature detectors (RTDs), piezoelectric pressure transducers and accelerometers, resistive strain gauges, passive radio frequency identification (RFID) tags, and similar equipment.

RFID tag readers are not included in this allowance and they would need to be certified for the areas in which they are used.

This VARIANCE provides approximately equivalent or greater safety performance with respect to persons and property as that provided for by the *Safety Codes Act*.

This VARIANCE is applicable throughout the province of Alberta and remains in force until the adoption of the 2024 Canadian Electrical Code, Part I.

Alberta

# JOINT CODE INTERPRETATIONS

## JOINT INTERPRETATION

June 2020

STANDATA

19-FCI-016 19-BCI-022 13-EDI-001 18-CECI-007 Page 1 of 4

#### EXISTING ELEVATOR MODERNIZATION/FIRE ALARM INTERFACE

#### PURPOSE

This interpretation provides clarity when a new Elevator Recall Control Supervisory Panel (ERCSP) or Firefighter Emergency Operation (FEO) is installed on existing elevators as per the Elevating Devices Codes Regulation AR 192/2015 and the ASME A17.1/CSA B44 Safety Code for Elevators and Escalators. This clarification is for building owners, operators, designers, fire alarm installers, fire alarm technicians, electricians, elevator constructors as well as Safety Codes Officers in the Elevator, Building, Fire and Electrical disciplines.

#### DISCUSSION

Changes to the Elevating Devices Code have resulted in some confusion between the Elevating Devices Code, the National Building Code – 2019 Alberta Edition (NBC(AE)) and the National Fire Code – 2019 Alberta Edition (NFC(AE)) related to upgrading existing elevators when installing new ERCSPs.

Some of the questions raised are:

- 1) What are the concerns for a building, regarding changes to the Fire Alarm System (FAS)?
- 2) What types of equipment and standards must be used to deal with the detection and notification portions of the FEO?
- 3) What are the requirements for "professional involvement" and permitting?
- 4) What are the requirements for verification or re-verification of the FAS after FEO is installed?
- 5) What are the inspection, testing and maintenance requirements for detection and notification equipment?

#### **APPLICATION**

This interpretation applies to all buildings where an existing elevator is upgraded or modernized to the current standards with a new ERCSP and the mandatory requirements for FEO.

#### INTERPRETATION

Issuance of this STANDATA is authorized by the Provincial Fire, Building, Elevating Devices and Electrical Administrators

This interpretation will provide clarity when upgrading an elevator to have FEO, the FEO upgrade requirements, the FAS requirements that correspond with an FEO upgrade, and the inspection, testing and maintenance requirements for the ERCSP and FAS. This document will also provide different examples of modification types for further clarification.

Building owners are not required to upgrade the elevator controller; however, when the owner of an existing elevator decides to perform an alteration or modernize the elevators to current standards, the elevator(s) shall have FEO.

The requirement to have FEO does not, create a requirement to install an FAS in a building. Conversely having an FAS in the building does not, create any requirement to upgrade the elevator system to include FEO.

Where the elevator in an existing building which has an FAS is modernized and FEO is added, all of the additional detection devices, components and wiring, which are required when upgrading the elevator system to FEO, shall be part of the FAS.

**Note:** It is not acceptable to have two systems for detecting combustion products in a building. This would lead to confusion among owners, occupants and servicing personnel and creates unreasonable operational difficulties for building operators and the responding fire department.

#### **Requirements:**

- All equipment used to detect products of combustion and control elevators shall meet the appropriate referenced CAN/ULC Standards\* (CAN/ULC-S527 for control panels, CAN/ULC-S529 for smoke detectors) referenced in the current NBC(AE) and the current NFC(AE). The spacing, wiring, and installation shall comply with the appropriate portions of CAN/ULC-S524 Installation of Fire Alarm Systems, as referenced in the current version of the NBC(AE).
- 2) Where the building is of a size/type where its design and construction requires (or would have required) professional involvement as per the NBC(AE) the design and installation of additional fire alarm equipment shall also require professional involvement.
- 3) Where devices are added to a building with a fire alarm system, to accommodate FEO, the FAS shall have its operation verified as per the current requirements of the NBC(AE), NFC(AE) and CAN/ULC-S537. If this addition required professional involvement for design and installation, the verification shall also require professional involvement.
- 4) Only smoke detectors that conform to CAN/ULC-S529 shall be used for smoke detection in an FEO system (<u>smoke alarms</u> are not permitted).
- 5) All FEO detection and notification systems shall be maintained annually in accordance with CAN/ULC-S536, either as part of the FAS or, where no FAS exists, as the independent ERCSP. Records of this maintenance shall be retained on-site for at least two years as per the NFC(AE).
- 6) Installation of new devices and wiring for FEO, both in a stand alone system, in a building with no FAS, and where the FEO devices are part of the existing FAS, shall require the owner, designer or installer to obtain a <u>Building Permit</u> from the authority having jurisdiction

(AHJ). If a new circuit or additional wiring to existing circuits is installed, an <u>Electrical Permit</u> from the AHJ shall be required as well.

7) Elevators without emergency backup power supplied shall be identified to firefighters by signage in each car, in symbols and text no less than 30 mm in height on a contrasting background, as below:



8) FEO upgraded elevators with emergency backup power supplied shall be identified to firefighters in each car with symbols and text no less 30 mm in height on a contrasting background as below:



#### **Possible Modernization Types**

- 1) Existing building where the owner decides to upgrade to FEO and the building does not have a FAS
  - a. FEO smoke detectors mounted in elevator lobbies (within 6.4 m of all hoistway entrances), hoist way and machine room,
  - b. The FEO does not require the installation of an FAS,
  - c. An ERCSP shall be installed in a building mechanical/electrical room but not in the elevator machine room. This panel shall be identified as the ERCSP by signage on the panel cover, in letters no less than 30 mm in height on a contrasting background and in addition, state in the same lettering that:

#### "This is NOT a Fire Alarm System".

- d. This system shall have the ERCSP detection designed and installed in accordance with the relevant portions of the referenced version of CAN/ULC-S524 in the current NBC(AE).
- 2) Existing building where the owner decides to upgrade to FEO and the building does have a FAS
  - a. FEO smoke detectors shall be mounted in elevator lobbies (within 6.4 m of all hoistway entrances), hoistway and machine room,
  - b. All detection and control of the elevators in FEO shall be through the Fire Alarm Control Panel (FACP),
  - c. Upgrading may need to be accomplished by using an addressable FAS or require the use of smoke detectors (heat detectors in the machine room may be possible) with integral relays for the purpose of providing signals to the elevator controller and this shall all be connected to the FACP in an approved manner (CAN/ULC-S529, S530, and S524). Where smoke detectors with integral relays are used, a fault in the

elevator signalling wires shall cause the elevator to go to its recall position. The system shall be configured for normally closed contacts so that a break in the wiring shall be immediately detected by the elevator going to its recall position. A separate ERCSP providing a single signal to the FAS <u>will not be acceptable</u>.

- d. Unsupervised (120V systems with no annunciator or control panel) fire alarm configurations are not able to be upgraded to provide FEO as per ASME A17.1/CSA B44 which requires electrical supervision of the system devices and therefore shall be replaced by a compliant FAS at the time the elevator controller is upgraded.
- 3) Existing building where the FAS is upgraded and the owner has decided not to upgrade elevators to FEO
  - a. The upgrade to the FAS does not generate any requirement to upgrade the elevator system,
  - b. No additional smoke detectors are required to be mounted in elevator lobbies, hoistway and machine room,
  - c. No FEO is required to be installed in building.

Designers, and the local Fire Department need to engage in full discussion of the requirements and expectations of the elevator and its interface to any FAS prior to the installation or upgrade of an elevator which utilises newer technology to provide FEO in accordance with ASME A17.1/CSA B44.

## Note: New Buildings shall comply with all the applicable requirements for the Building, Fire, Electrical and the Elevating Devices Codes Regulations.

\*The following ULC documents are referenced in this STANDATA:

CAN/ULC-S524, "Installation of Fire Alarm Systems" ULC-S527, "Control Units for Fire Alarm Systems" CAN/ULC-S529, "Smoke Detectors for Fire Alarm Systems" CAN/ULC-S530, "Heat Actuated Fire Detectors" CAN/ULC-S536, "Inspection and Testing of Fire Alarm Systems", and CAN/ULC-S537, "Verification of Fire Alarm Systems"

[Original Signed]

[Original Signed]

Tina Parker Provincial Fire Administrator

[Original Signed]

Dean Bruce Provincial Elevating Devices Administrator Clarence C. Cormier, P.Eng. Provincial Electrical Administrator

[Original Signed]

Paul Chang Provincial Building Administrator

## FIRE/BUILDING ELECTRICAL CODE INTERPRETATION

STANDA

August 2020

19-FCI-007 19-BCI-015 18-CECI-009

Page 1 of 8

#### **EXISTING FIRE ALARM SYSTEMS**

#### PURPOSE

This identifies requirements where an existing fire alarm system, regardless of age, requires inspection, testing, maintenance and installation of devices or other equipment (e.g. maglocks) in order to provide or maintain an expected level of safety for occupants.

This also defines who is able to install, verify, inspect, test and maintain fire alarm systems.

#### DISCUSSION

There are five types of activities conducted on a fire alarm system – installation, verification, inspection, testing and maintenance.

Installation includes a new install or additions, modifications and renovations (changes) to an existing installation.

Verification involves inspection and testing to verify the fire alarm system conforms to the design, and the applicable codes and standards, and performs all of its intended functions.

Inspection is a visual examination to determine the device or system will apparently perform in accordance with its intended function.

Testing is the operation of a device or system to determine it will perform in accordance with its intended operation or function.

Maintenance is the removal, replacement or servicing of devices or equipment found inoperative during an inspection and test of the fire alarm system or due to an inoperative device at any other time.

There are factors that influence the degree of work that may be necessary to an existing fire alarm system in order for it to provide the expected level of protection. The factors take into consideration the need for maintaining or changing systems that have been installed to "good engineering practice" prior to established codes and standards.

The factors also reflect how fire alarm systems installed under established codes and standards should be regarded when maintenance or changes are contemplated and to what degree the

Issuance of this STANDATA is authorized by the Provincial Fire/Building and Electrical Administrators [original signed] [original signed] [original signed] Tina Parker Paul Chang Clarence Cormier



Alberta Municipal Affairs – Community & Technical Support, 16<sup>th</sup> Floor, 10155 –102<sup>nd</sup> Street, Edmonton, Alberta, Canada, T5J 4L4 Phone: 1-866-421-6929 Email: <u>safety.services@gov.ab.ca</u> Website: <u>https://www.alberta.ca/safety-codes.aspx</u> requirements of the most current codes and standards apply in maintenance and changes to the systems.

The main codes containing specific requirements are the National Building Code–2019 Alberta Edition (NBC(AE)), National Fire Code–2019 Alberta Edition (NFC(AE)) and the Canadian Electrical Code (CE Code) 2018. These codes reference the following standards for the installation, verification, inspection and testing of fire alarm systems:

CAN/ULC-S524-14 Installation of Fire Alarm Systems CAN/ULC-S536-13 Inspection and Testing of Fire Alarm CAN/ULC-S537-13 Verification of Fire Alarm Systems CAN/ULC-S1001-11 Integrated Systems Testing of Fire Protection and Life Safety Systems

Installations, verifications, inspections, testing and maintenance of fire alarm and voice communication systems can only be completed by those qualified under Division C of the NFC(AE).

#### CODE REFERENCES

Safety Codes Act states:

#### Interpretation

1(1) In this Act,

(e) "Administrator" means an Administrator appointed under this Act;

#### **Application of Act**

**2(1)** This Act applies to fire protection, barrier-free design and the design, manufacture, construction, installation, use, operation, occupancy and maintenance of

- a) buildings,
- b) electrical systems,
- c) elevating devices,
- d) gas systems,
- e) plumbing systems,
- f) pressure equipment, and
- g) private sewage disposal systems.

#### NBC(AE) and NFC(AE) Preface states:

#### Relationship between the NBC(AE) and the NFC(AE)

The National Building Code – 2019 Alberta Edition (NBC(AE)) and National Fire Code – 2019 Alberta Edition (NFC(AE)) each contain provisions that deal with the safety of persons in buildings in the event of a fire and the protection of buildings from the effects of fire.(2) These two Codes are developed as complementary and coordinated documents to minimize the possibility of their containing conflicting provisions. It is expected that buildings comply with both the NBC(AE) and the NFC(AE). The NBC(AE) generally applies at the time of construction and reconstruction while the NFC(AE) applies to the operation and maintenance of the fire-related features of buildings in use.

The scope of each of these Codes with respect to fire safety and fire protection can be summarized as follows:

The NBC(AE) covers the fire safety and fire protection features that are required to be incorporated in a building or facility at the time of its original construction. Building codes typically no longer apply once a building is occupied, unless the building is undergoing alteration or change of use, or being demolished.

The NFC(AE) includes provisions for:

- the on-going maintenance and use of the fire safety and fire protection features incorporated in buildings
- the conduct of activities that might cause fire hazards in and around buildings
- limitations on hazardous contents in and around buildings
- the establishment of fire safety plans
- fire safety at construction and demolition sites

In addition, the NFC(AE) contains provisions regarding fire safety and fire protection features that must be added to existing buildings when certain hazardous activities or processes are introduced in these buildings.

Some of the NFC(AE)'s provisions are not duplicated directly in the NBC(AE) but are in fact adopted through cross-references to the NFC(AE). Thus, some NFC(AE) provisions may apply to original construction, alterations, or changes in use.

#### NBC(AE) and NFC(AE) Article 1.4.1.2 of Division A states:

#### 1.4.1.2. Defined Terms

Approved means acceptable to the Provincial Fire Administrator.

Authority having jurisdiction means a safety codes officer in the building discipline exercising authority pursuant to designation of powers and terms of employment in accordance with the Safety Codes Act.

Authority having jurisdiction means a safety codes officer in the fire discipline exercising authority pursuant to designation of powers and terms of employment in accordance with the Safety Codes Act. (See Note A-1.4.1.2.(1).).

#### A-1.4.1.2.(1) Defined Terms. Authority Having Jurisdiction

The defined term "authority having jurisdiction" refers to a safety codes officer as the appointed individual responsible for decision-making in a number of areas. In most cases, this individual will be a member of an accredited municipal fire department. In municipalities that use accredited agencies for their inspection and enforcement, the fire department may not be involved. It is important that accredited municipalities employing accredited agencies properly designate the person(s) acting as the authority having jurisdiction.

In addition, municipalities using accredited agencies should ensure that the agency has a close working relationship with the fire department during the decision-making process.

*Provincial Building Administrator* means a person in the building discipline appointed as an Administrator under the Safety Codes Act.

*Provincial Fire Administrator* means a person in the fire discipline appointed as an Administrator under the Safety Codes Act.

*Registered engineering professional* means an individual who is authorized to engage in the practice of engineering under the Engineering and Geoscience Professions Act and its Regulations.

NBC(AE) Article 1.1.1.2. of Division A states:

#### 1.1.1.2. Application to Existing Buildings

(See Note A-1.1.1.2.)

1) This Article applies to a *building* that has been legally built, occupied and used before 01 April 2019.

# STANDATA

- 2) If a *building* is altered, rehabilitated, refurbished, renovated or repaired, the level of life safety and *building* performance shall not be decreased.
- 3) Except as specified in Part 10 of Division B, the *authority having jurisdiction* shall accept any construction or condition that lawfully existed in Alberta before 01 April 2019 if the construction or condition does not constitute an *unsafe condition*.
- 4) A change in *occupancy* or *alteration* of any *building* constructed before 01 April 2019 shall be permitted if the level of safety and *building* performance proposed are acceptable to the *authority having jurisdiction*.
- 5) For a *building* constructed before 01 April 2019, the *authority having jurisdiction* may accept an alternative or a proposal that achieves the appropriate level of safety for the specific activity for which the *building* is to be used.
- 6) The *authority having jurisdiction* may accept existing construction not in complete compliance with this Code, in which case it may be accepted, subject to conditions.

**A-1.1.1.2. Application to Existing Buildings**. This Code is most often applied to existing or relocated buildings when an owner wishes to rehabilitate a building, change its use, or build an addition, or when an enforcement authority decrees that a building or class of buildings be altered for reasons of public safety. It is not intended that the NBC(AE) be used to enforce the retrospective application of new requirements to existing buildings or existing portions of relocated buildings. For example, although the NFC(AE) could be interpreted to require the installation of fire alarm, standpipe and hose, and automatic sprinkler systems in an existing building for which there were no requirements at the time of construction, it is the intent of the Safety Codes Council that the NFC(AE) not be applied in this manner to these buildings unless the authority having jurisdiction has determined that there is an inherent threat to occupant safety and has issued an order to eliminate the unsafe condition, or where substantial changes or additions are being made to an existing building or the occupancy has been changed. (See also Note A-1.1.1.1(1) of Division A of the NFC(AE).)

Relocated buildings that have been in use in another location for a number of years can be considered as existing buildings, in part, and the same analytical process can be applied as for existing buildings. It should be noted, however, that a change in occupancy may affect some requirements (e.g. loads and fire separations) and relocation to an area with different wind, snow or earthquake loads will require the application of current code requirements. Depending on the construction of the building and the changes in load, structural modifications may be required. Similarly, parts of a relocated or existing building that are reconstructed, such as foundations and basements, or parts being modified are required to be built to current codes. Whatever the reason, Code application to existing or relocated buildings requires careful consideration of the level of safety needed for that building. This consideration involves an analytical process similar to that required to assess alternative design proposals for new construction. See Clause 1.2.1.1.(1)(b) for information on achieving compliance with the Code using alternative solutions.

In developing Code requirements for new buildings, consideration has been given to the cost they impose on a design in relation to the perceived benefits in terms of safety. The former is definable; the latter difficult to establish on a quantitative basis. In applying the Code requirements to an existing building, the benefits derived are the same as in new buildings. On the other hand, the increased cost of implementing in an existing building a design solution that would normally be intended for a new building may be prohibitive.

The successful application of Code requirements to existing construction becomes a matter of balancing the cost of implementing a requirement with the relative importance of that requirement to the overall Code objectives. The degree to which any particular requirement can be relaxed without affecting the intended level of safety of the Code requires considerable judgment on the part of both the designer and the authority having jurisdiction.
Further information on the application of Code requirements to existing or relocated buildings may be found in the following publications:

- "User's Guide NBC 1995, Fire Protection, Occupant Safety and Accessibility (Part 3)"
- "Guidelines for Application of Part 3 of the National Building Code of Canada to Existing Buildings"
- Commentary entitled "Application of NBC Part 4 of Division B for the Structural Evaluation and Upgrading of Existing Buildings" of the "Structural Commentaries (User's Guide – NBC 2015: Part 4 of Division B)"
- "User's Guide NBC 1995, Application of Part 9 to Existing Buildings"
- CBD 230, "Applying Building Codes to Existing Buildings"

These publications can be ordered through NRC's website.

#### NBC(AE) Article 3.2.4.5. of Division B states:

#### 3.2.4.5. Installation and Verification of Fire Alarm Systems

- 1) Except as permitted by Articles 3.2.4.10. and 3.2.4.19., fire alarm systems, including the voice communication capability where provided, shall be installed in conformance with CAN/ULC-S524, "Installation of Fire Alarm Systems."
- 2) Fire alarm systems shall be verified in conformance with CAN/ULC-S537, "Verification of Fire Alarm Systems," to ensure they are operating satisfactorily.

#### NBC(AE) Article 2.4.2.4. of Division C states:

#### 2.4.2.4. Fire Alarm System Designs

If a fire alarm system is to be installed in a *building* described in Sentence 2.4.2.1.(4) or (5), the *owner* shall submit evidence to the *authority having jurisdiction*, before construction begins, that they have retained a *registered engineering professional* to a) design the system,

b) perform *field reviews* of the system during installation, and

c) witness verification of the system after installation.

NFC(AE) Article 2.1.1.1. of Division A states:

#### 2.1.1.1. Application

1) This Part applies to all *buildings* and facilities covered in this Code. (See Article 1.1.1.1.)

NFC(AE) Article 6.1.1.1 of Division B states:

#### 6.1.1.1. Application

1) This Part includes requirements for the inspection, testing, maintenance, and operation of portable extinguishers, water-based fire protection systems, special extinguishing systems, fire alarm systems,

#### NFC(AE) Sentence 6.3.1.2.(1) of Division B states:

#### 6.3.1.2. Inspection and Testing

1) Fire alarm systems shall be inspected and tested in conformance with CAN/ULC-S536, "Inspection and Testing of Fire Alarm Systems."

# NFC(AE) Article 2.2.4.3. of Division C states:

# 2.2.4.3. Fire Alarm and Voice Communication Systems

1) Only qualified persons shall install, test or perform maintenance on fire alarm and voice communication systems when they have acquired an *approved* certificate of

training from

a) a public post-secondary educational institution, or

b) the Canadian Fire Alarm Association (CFAA).

(See Note A-2.2.4.3.(1).)

**A-2.2.4.3.(1)** The types of training provided and other provincial legislation may limit the scope of activities a qualified person may perform on such systems.

Persons are considered qualified to make operational, inspect, test and maintain fire alarm and voice communication systems when they have acquired a certificate of training in this area of study from

- a) a public post-secondary educational institution, including:
  - i) an Alberta Journeyman's Electrician certificate on or after September 1, 1991,
  - ii) an Alberta Journeyman's Electrician certificate prior to September 1, 1991 and a fire alarm course\* recognized by the Provincial Fire Administrator,
  - iii) a Canadian Red Seal Journeyman's Electrician certificate and a fire alarm course\* recognized by the Provincial Fire Administrator, or
- b) Fire Alarm Technician certification issued by the Canadian Fire Alarm Association (CFAA).

Persons are considered qualified in the installation of fire alarm and voice communication systems when they have acquired

- a) an Alberta Journeyman's Electrician certificate on or after September 1, 1991,
- b) an Alberta Journeyman's Electrician certificate prior to September 1, 1991 and have completed a fire alarm course\* recognized by the Provincial Fire Administrator, or
- c) a Canadian Red Seal Journeyman's Electrician certificate and have completed a fire alarm course\* recognized by the Provincial Fire Administrator.

Fire alarm verifications are generally the responsibility of a licensed engineering professional. In Alberta, this must be the registered professional who will complete a Schedule "C" under the National Building Code – 2019 Alberta Edition.

# APPLICATION

This interpretation applies to all buildings where a fire alarm system is currently in use and the fire alarm undergoes installation (changes), verification, inspection, testing and maintenance.

# INTERPRETATION

This interpretation will simplify the requirements for installation (changes), verification, inspection, testing and maintenance to fire alarm systems in existing buildings. Only those qualified as per the NFC(AE) can complete these types of activities.

The five types of activities that can be done on an existing fire alarm system include: installation (changes), verification, inspection, testing and maintenance. Maintenance is typically the removal and replacement of devices found inoperative during a regular annual inspection and test of the fire alarm system or due to an inoperative device at any other time. Qualified electricians and fire alarm technicians can complete this activity as per NFC(AE) Division C. Only qualified electricians can replace or repair wiring.

For fire alarm systems installed under previous Alberta editions of the building code, equal exchange (like for like device replacement) of devices are acceptable. However, if the replacement is not an equal exchange, the following scenarios shall be followed:

• Change of use or modernization of the building - the current NBC(AE) shall be applied.



No change of use – in this situation, upgrading to the current Building Code could be onerous and according to NFC(AE) Division A, Article 1.1.1.2. the owner may apply to the *authority having jurisdiction* (AHJ) (Building) for an alternative solution detailing the reasons why they need a fire alarm replaced and why they want to install a new fire alarm to an older edition of the Alberta Building Code and/or CAN/ULC standard.
 Note: Where the NBC(AE) requires professional involvement for a building due to its size, occupancy, or complexity, a *registered engineering professional* is also required to upgrade or modify existing fire alarm systems.

If a fire alarm system requires additions or modifications, these changes are still categorized as installs and, along with complete new installs, can only be completed by a qualified electrician. The following chart shows the work which an electrician or fire alarm technician can complete:

# Work Acceptable Under the Electrician Trade Regulation and the NFC(AE)

INSTALLATION & MAINTENANCE OF FIRE ALARM SYSTEMS		
	ELECTRICIAN	TECHNICIAN
Installation	✓	×
Inspection	✓	$\checkmark$
Testing	✓	$\checkmark$
Maintenance	✓ (1)	✓ (1)
Additions / Renovations	✓	×
Audit System (under AFC 6.3.1.6.)	<b>x</b> (2)	<b>x</b> (2)

1) Certified electricians and technicians must be qualified under the NFC(AE).

 Certified electricians and technicians qualified as per the NFC(AE) may perform an audit where professional engineering involvement is not required as per the NBC(AE).
 NOTES:

- a) Apprentice electricians may complete all of the work an electrician is able to, as long as the apprentice is competent to complete the work. The apprentice also has to be under the supervision of a journeyperson electrician as per the Apprentice Program Regulation and the Electrician Trade Regulation.
- b) A CFAA Fire Alarm Trainee (a trainee is one that is actively enrolled within the CFAA fire alarm technician program) may complete all of the work a certified technician is able to, as long as they are competent to complete the work. The CFAA Fire Alarm Trainee also has to be under the supervision of a certified technician.
- c) Where the table indicates inspections can only be completed by a qualified person, the daily and monthly inspections required by CAN/ULC-S536 are exceptions. These daily and monthly inspections and tests may be completed by the *owner* or the *owner*'s representative who have received training from the manufacturer or service provider on their system.

All additions or modifications to a fire alarm system must be reviewed and accepted by the Building *Authority Having Jurisdiction*. Permits are often required for modifications and additions to the fire alarm system. The Safety Codes Act – Permit Regulation sets out the requirements for permits under both the building and electrical disciplines. The local *Authority Having Jurisdiction* must be contacted prior to any work being conducted on any fire alarm system.

Fire alarm's system verification must be in accordance with CAN/ULC S537 Verification of Fire Alarm Systems.



Please refer to STANDATA <u>19-BCI-014R1</u> Fire Alarm and Fire Suppression System Verification and Testing Certificates.

This INTERPRETATION replaces the following: FCI-08-06 and 14-FCI-006R1 Existing Fire Alarm Systems.

This INTERPRETATION is applicable throughout the province of Alberta.

# STANDATA interpretation 19-BCI-025/18-ECI-009

**Building/Electrical** 

# **Lightning Protection Systems**

Date Issued: November 2021

Page 1 of 3

#### Purpose

Clarifies requirements for installing, altering, or adding to lightning protection systems. This clarification is for building owners, operators, designers, electricians, as well as safety codes officers (SCO) in the building and electrical disciplines.

#### Discussion

The National Building Code - 2019 Alberta Edition (NBC(AE)) provides requirements for lightning protection systems. The Electrician Trade Regulation classifies lightning protection systems as an electrical system. The Permit Regulation requires an electrical permit to install, alter or add to an electrical system.

Some of the questions raised are:

1) Which adopted codes reference the CSA B72 standard?

Sentence 3.6.1.3.(1) of the NBC(AE) requires lightning protection systems conform to CAN/CSA-B72-M, "Installation Code for Lightning Protection Systems". Rule 10-108 (Appendix B) of the 2018 Canadian Electrical Code (CE Code) lists the CAN/CSA-B72 standard as a recommended practice for the installation of lightning protection systems.

2) Which edition of the CSA B72 standard applies?

Both the NBC(AE) and the CE Code reference the CAN/CSA-B72-M87 standard.

Issued by the Provincial Building and Electrical Administrators

[Original Signed] Paul Chang Provincial Building Administrator [Original Signed] Clarence C. Cormier, P.Eng. Provincial Electrical Administrator

Alberta Municipal Affairs – Technical and Corporate Services Phone: 1-866-421-6929 Email: safety.services@gov.ab.ca

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#### STANDATA 19-BCI-025/18-ECI-009

3) What are the requirements for professional involvement?

Section 18 of the Administrative Items Regulation allows an SCO to request professional involvement for electrical systems if, in the opinion of the SCO, there are special safety concerns due to the size or complexity of the project. Professional involvement may also be required by the *Engineering and Geoscience Professions Act* or the *Architects Act*.

4) What are the requirements for a permit?

Section 1 of the Electrician Trade Regulation defines a lightning protection system as an electrical system. Per Section 18 of the Permit Regulation, an electrical permit is required to install, alter, or add to an electrical system.

5) What are the requirements for inspection and maintenance?

Appendix B of the CAN/CSA B72 standard contains guidelines for the inspection and maintenance of lightning protection systems.

#### Code References

#### National Building Code – 2019 Alberta Edition Division B, Sentence 3.6.1.3.(1) states:

#### 3.6.1.3. Lightning Protection Systems

1) A lightning protection system, when provided, shall conform to the requirements of CAN/CSA-B72-M, "Installation Code for Lightning Protection Systems."

#### 2018 Canadian Electrical Code, Part 1 states:

#### Rule 10-108 (Appendix B)

Recommended practices for the installation of a lightning protection system, including lightning rods, interconnecting conductors, and ground electrodes, are given in CAN/CSA-B72. Other national and international industry-recognized Standards on lightning protection are also available. It should be noted that the *National Building Code of Canada* mandates the use of CAN/CSA-B72 as the Standard for lightning protection systems.

#### **Electrician Trade Regulation**

#### Definitions

- **1** In this Regulation,
- (c) "electrical systems" means any type of residential, commercial, institutional or industrial building or structural electrical system and without limiting the generality of the foregoing includes

   (x) lightning protection systems;

#### Permit Regulation

Electrical permit 8(1) A permit in the electrical discipline is required to install, alter or add to an electrical system.

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#### Administrative Items Regulation

#### **Complex projects**

**18(1)** If, in the opinion of a safety codes officer, the size or complexity of a project may give rise to special safety concerns, the safety codes officer may require that all plans and specifications, or any part of them, for the project's

(b) electrical systems,

be imprinted with a seal or stamp affixed in accordance with the *Engineering and Geoscience Professions Act* for engineering work, or the *Architects Act* for architectural work.

(2) If, in the opinion of a safety codes officer, the size or complexity of a project may give rise to special safety concerns, the safety codes officer may require that the construction of any or all of the project's (b) electrical systems,

be reviewed during construction in accordance with the *Engineering and Geoscience Professions Act* for engineering work, or the *Architects Act* for architectural work.

#### Application

This interpretation applies to all structures where a lightning protection system is installed.

#### INTERPRETATION

- 1) The installation, alteration, or addition to a lightning protection system is required to comply with the CAN/CSA-B72-M87 standard.
- An electrical permit is required for the installation, alteration, or addition to a lightning protection system. A building permit is not required.

This INTERPRETATION applies throughout the province of Alberta

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# JOINT CODE INTERPRETATION

April 2020

STANDATA

19-FCI-006 Page 1 of 9

# MOBILE/TEMPORARY COOKING EQUIPMENT

# PURPOSE

The purpose of this interpretation is to assist owners/operators of mobile cooking operations and safety codes officers with the minimum requirements under the *Safety Codes Act* for Mobile Cooking Operations (MCO).

# DISCUSSION

# Application of the National Building Code-2019 Alberta Edition

While a building means any structure used or intended for supporting or sheltering any use or occupancy and an MCO does support temporary occupancy or sheltering a use, an MCO is not purely a "building". An MCO is also a vehicle that may be parked or sited on a temporary basis and then moves to a different location. Describing an MCO as a building would be similar to describing a recreational vehicle as a building for use as a residential occupancy. If we accept that an MCO is a combination of uses as a vehicle and as a fixed shelter for temporary periods, then a selective application of the Safety Codes Act to MCOs is supported by the legislation.

This Interpretation has been jointly developed by Provincial Administrators for Fire, Building, Gas, Plumbing and Electrical disciplines at Alberta Municipal Affairs and the associated fire, building, gas, plumbing and electrical sub-councils of the Safety Codes Council.

# APPLICATION OF INTERPRETATION UNDER THE SAFETY CODES ACT

There are specific provisions in the National Building Code – 2019 Alberta Edition (NBC(AE)) that apply to commercial cooking equipment used in an MCO that are also referenced in the National Fire Code - 2019 Alberta Edition (NFC(AE)) related to ventilation and fire suppression equipment.

NBC(AE) Clause 1.1.1.1.(1)(m) of Division A states:

# Application of this Code

- 1) This Code applies to any one or more of the following:
  - m) the installation, replacement, or alteration of equipment regulated by this Code,

# NBC(AE) Article 6.3.1.7 of Division B states:

# **Commercial Cooking Equipment**

 Except as provided in Article 3.6.3.5., systems for the ventilation of commercial cooking equipment shall be designed constructed and installed to conform to NFPA 96, "Ventilation Control and Fire Protection of Commercial Cooking Operations."

Issue of this STANDATA is authorized by the Provincial Fire, Plumbing, Gas, Building and Electrical Administrators

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- 2) A ventilation system for a *food establishment* shall not have components that allow drips to fall onto surfaces where food is prepared or into food.
- 3) A ventilation system for a *food establishment* shall have all openings to the exterior of the *building* located and protected to prevent the entry of vermin, dust, dirt and other contaminating material into the *food establishment*.
- 4) Canopies, hoods and ductwork for a ventilation system exposed within the kitchen or cooking area of a *food establishment* shall be constructed of stainless steel.
- 5) A *food establishment* in which food is prepared and process generates odours, smoke, steam or heat shall have a mechanical ventilation system that includes canopies, ductwork and fans to remove odours, smoke, steam or heat to the exterior of the *building*.

# Definition of a food establishment from the NBC(AE)

*Food establishment* means premises where food that is intended for consumption by the public is served, offered for sale, displayed, processed, packaged, stored or handled.

#### Article 6.9.1.3. of Division B of the NBC(AE) states:

#### **Commercial Cooking Equipment**

- 1) Fire protection systems for commercial cooking equipment referred to in Sentence (1) using vegetable oil or animal fat shall conform to
  - a) ANSI/UL 300, "Fire Testing of Fire Extinguishing Systems for Protection of Commercial Cooking Equipment," or
  - b) ULC/ORD-C1254.6, "Fire Testing of Restaurant Cooking Area Fire Extinguishing System Units."

Ventilation, exhaust and suppression requirements for an MCO are within the scope of National Fire Protection Association (NFPA) 96, "Ventilation Control and Fire Protection of Commercial Cooking Operations" referenced in both the NBC(AE) and NFC(AE).

The 2017 edition of NFPA 96 states that "this document shall apply to":

**4.1.9**\* Cooking equipment used in fixed, mobile, or temporary concessions, such as trucks, buses, trailers, pavilions, tents, or any form of roofed enclosure, shall comply with this standard.

\***A.4.1.9** The authority having jurisdiction can exempt temporary facilities, such as a tent, upon evaluation for compliance to the applicable portions of this standard.

Although it might not be practical to enforce all requirements of this standard in temporary facilities, the authority having jurisdiction should determine that all necessary provisions that affect the personal safety of the occupants are considered.

The Authority Having Jurisdiction (AHJ) may also require additional building and fire code requirements related to fire protection and exhaust/ventilation systems. Examples of the application of the NBC(AE) to an MCO include, but are not limited to:

- An MCO with an exhaust hood and fire suppression system is required where the production of smoke, heat and grease laden vapour occurs;
- An MCO with a ventilation system is not required to provide a make-up air system beyond provision of properly sized openable closures that are used for food service; and
- An MCO is required to have a fan interlock ensuring that the exhaust fan can only operate when such closures have been opened.

# STANDATA

For MCO's operating in or under a "tent" the tent shall conform to CAN/ULC S109 as per Article 3.1.6.5. of Division B of the NBC(AE) which states:

### Flame Resistance

 Every tent and *air-supported structure* and all tarpaulins and decorative materials used in connection with these structures shall conform to CAN/ULC-S109, "Flame Tests of Flame-Resistant Fabrics and Films."

**NOTE:** NFPA 2017 Edition of NFPA 96 "Ventilation Control and Fire Protection of Commercial Cooking Operations", Annex B specifically speaks to Mobile Cooking Operations.

# Application of the National Fire Code – 2019 Alberta Edition

Article 2.6.1.9. of the NFC(AE) requires that commercial cooking ventilation and exhaust systems comply with the requirements of the NBC(AE). The NBC(AE) directs compliance with NFPA 96 for exhaust and fire suppression installations. Article 2.6.1.9. of the NFC(AE) also requires that the ventilation, exhaust and suppression systems be inspected and maintained in accordance with NFPA 96.

NFC(AE) Article 2.6.1.9. of Division B states:

#### 2.6.1.9. Commercial Cooking Equipment

- 1) Commercial cooking equipment exhaust and fire protection systems shall be designed and installed in conformance with the NBC(AE).
- 2) Except as required in Sentences (3) to (5), the use, inspection and maintenance of commercial cooking equipment exhaust and fire protection systems shall be in conformance with NFPA 96, "Ventilation Control and Fire Protection of Commercial Cooking Operations."
- Hoods, grease removal devices, fans, ducts, and other appurtenances shall be cleaned at frequent intervals to prevent surfaces from becoming heavily contaminated with grease or other residues. (See Note A-2.6.1.9.(3).)
- 4) Flammable cleaning materials or solvents shall not be used for the cleaning of exhaust systems.
- 5) Instructions for manually operating the fire protection systems shall be posted conspicuously in the kitchen as part of the fire safety plan.
- 6) Commercial cooking equipment that is certified shall be installed and maintained in conformance with its certification.
- 7) Uncertified commercial cooking equipment shall be installed and maintained so as not to create a fire hazard.

**NOTE:** Uncertified/unapproved gas (natural or propane) or electrical appliances are not acceptable for installation in an MCO.

Article 2.1.3.5. of Division B of the NFC(AE) states that the installation and maintenance requirements for a kitchen fire suppression system are in NFPA 17A, "Standard for Wet Chemical Extinguishing Systems".

It is important to note that Article 3.2.5.17. of the NBC(AE) applies to all MCO's that have wet chemical extinguishing systems.

# NBC(AE) Article 3.2.5.17. of Division B states:

#### 3.2.5.17. Protection from Freezing

- Equipment forming part of a fire protection system shall be protected from freezing if

   a) it could be adversely affected by freezing temperatures, and
  - b) it is located in an unheated area.

#### NFC(AE) Article 2.1.3.5. of Division B states:

#### 2.1.3.5. Special Fire Suppression Systems

- 1) Where a special fire suppression system is required by this Code or installed through application of good engineering practices, the system shall conform to one of the standards *listed* in Sentences (3) and (4).
- 3) The design and installation of a special fire suppression system that is not water-based shall conform to one of the following standards:
  - f) NFPA 17A, "Wet Chemical Extinguishing Systems,"

The NFC(AE) also requires Portable Fire Extinguishers for an MCO in accordance with NFPA 10, "Portable Fire Extinguishers".

Under the requirements of Sections 2.8. and 5.1. of the NFC(AE), the fire safety provisions for:

- the safe storage, use and location of gasoline for generators;
- generators to be cooled prior to refueling;
- the location of the MCO at least 3 metres from buildings and other MCOs; and
- the location of any generator 3 metres from a building

are all items required under a fire safety plan.

The NFPA's "**FIRE SAFETY TIPS FOR MOBILE COOKING OPERATIONS**" (attached to this Interpretation as Appendix "A") provides a list of items for consideration in the fire safety plan to be developed by the owner/operator and submitted to the local fire department.

The NFC(AE) also requires the electrical and cooking fuel gas systems to comply and be maintained in accordance with the electrical and gas code regulations adopted under the *Safety Codes Act.* 

#### **Application of the Electrical Code**

The Electrical Code Regulation, section 2, prescribes the conditions for the use of equipment related to electrical systems and applies these requirements to the term "approved" as referenced in the 2018 Canadian Electrical Code, Part 1 (2018 CE Code).

The scope of the 2018 CE Code covers the wiring, equipment, components and accessories of the appliances located and connected within and to an MCO. Electrical equipment must be approved and identified with acceptable markings, as per the Electrical Safety Information Bulletin at:

https://open.alberta.ca/publications/standata-electrical-safety-information-bulletin-legislationelectrical-code-regulation

In addition, any electrical installation for an MCO shall comply with the requirements of the 2018 CE Code. The installation of wiring and the connection of electrical equipment are identified under the Permit Regulation as activities requiring electrical permits.

# Application of the Gas Code

The Gas Code Regulation adopts CAN/CSA B149.1-15 "Natural Gas and Propane Installation Code", CAN/CSA B149.2-15 "Propane Storage and Handling Code" and CAN/CSA B149.5-15 "Installation Code for Propane Fuel Systems and Tanks on Highway Vehicles".

The scope of these regulations and codes covers all installation of appliances, equipment, components, and accessories where natural or propane gas is used for fuel purposes. Whenever the installation, extension, alteration or addition of a gas system occurs, compliance with the current code in force is required. Any natural gas and propane system installations in an MCO shall comply with the requirements of these regulations and codes and are identified under the Permit Regulation as activities requiring gas permits.

# **Application of the Plumbing Code**

The Plumbing Code Regulation adopts the National Plumbing Code of Canada 2015. The scope of this code addresses any portion of a plumbing system installation that is not certified as part of a Recreational Vehicle or portable structure.

#### **ADDITIONAL INFORMATION**

In addition to the *Safety Codes Act*, MCOs are subject to other legislation (including regulations, codes, bylaws and other rules). The owner/operator is advised to contact:

- Each local municipality for any business licenses, permits, zoning and location approvals and restrictions.
- Environmental Public Health Safe Food at Alberta Health Services for applicable licensing or inspection requirements. To contact a Public Health office for your local area, please access the following link:

http://www.albertahealthservices.ca/eph/eph.aspx

# INTERPRETATION

Mobile Cooking Operations (MCO) and equipment, when stationary and used to produce, cook, sell and/or distribute food, support or intend to support an occupancy and subject to select application of the *Safety Codes Act* as set out in this Interpretation (lincludes regulations made under this *Act* and any codes, standards or body of rules declared in force pursuant to this *Act*).

This Interpretation applies to all portable/temporary food-service and cooking equipment including but not limited to food truck, vending truck, chip truck, burger wagon, doughnut shack, mobile/portable food vending unit, hot dog cart and other MCO uses in Alberta. The MCO may utilize electricity, wood, charcoal, propane or natural gas as energy for cooking and may use either supplied or on-site generated electricity to power lights, fans and cooling equipment.

# This INTERPRETATION replaces the following:

14-FCI-003, "Mobile/Temporary Cooking Equipment".

This INTERPRETATION is applicable throughout the province of Alberta.

Issuance of this STANDATA is authorized by the following Administrators:

[original signed]

Tina Parker Provincial Fire Administrator

Provincial Building Administrator

[original signed]

Sidney Manning Provincial Plumbing and Gas Administrator

[original signed]

Paul Chang

[original signed]

Clarence Cormier Provincial Electrical Administrator

#### FIRE SAFETY TIPS FOR MOBILE COOKING OPERATIONS General • Does your jurisdiction require a license or permit to operate (e.g. local fire/health department)? Is cooking equipment attended at all times? • Are all required ventilation openings open during cooking operations? • Is the cooking hood/ventilation system free from grease? • Is the vehicle parked at least 3 m from buildings, other vehicles, or combustibles? • Is the vehicle parked so as not to block fire hydrants, fire lanes, fire department connections, exits, etc.? Training • Are employees trained in proper use of cooking equipment? • Are employees trained in how to shut-off fuel sources (e.g. propane, generators)? • Are employees trained in how to notify the local fire department in an emergency? • Are employees trained in proper storage, handling and fueling procedures? • Are employees trained in how to perform a leak test and when one is needed? • Are workers trained in the proper use of portable fire extinguishers and hood extinguishing system? **Fire Protection** PORTABLE FIRE EXTINGUISHERS • Are portable fire extinguishers charged, not obstructed, and in operating condition? • Are portable fire extinguisher located near the cooking appliance, solid fuel storage, and any portable energy source (e.g. generator)? Hood Fire Suppression System • Is the hood fire suppression system charged and in operating condition? Fuel and Power Sources PROPANE • Is the propane system inspected prior to use? • Are the propane tanks secured in an upright position? • Are the propane tanks within their hydrostatic test date? • Is the propane system in good condition, (i.e. no leaks, rust)? • Has the propane system been leak tested? • Has a leak test been performed when a new tank is installed, or a modification to the system has been made? • Is documentation available for any leak test? • Is the main shut-off marked, in plain view and easily assessable? • Is the fuel supply shut off when not in use and while in transit? **ELECTRICAL** Is the electrical system and other equipment in good working condition? • Are extension cords in good condition? • Is the electrical system, including extension cords in accordance with the electrical code? GENERATORS •Are generators placed at least 3 m from buildings, structures, vehicles and combustibles? Are generator exhausts directed away from mobile cooking vehicle, vehicles, buildings, structures, exits and openings? • Are generators protected from contact by the public? • Are fuel supplies properly stored? • When refueling are the generators shut down, engine cooled and then refueled? SOLID FUEL • Is combustible solid fuel stored properly and away from combustibles or heat producing appliances? • Are ashes, cinders, and other fire debris removed at the end of the day and stored in a proper container away from the vehicle, buildings and combustibles? NOTE: This Safety Sheet has been developed by the Ministry of Alberta Municipal Affairs, Technical and Corporate Services Division and is based on the "Fact Sheet for Food Truck Safety" created by the National Fire Protection Association ("NFPA"). The Ministry of Alberta Municipal Affairs is solely responsible for the content of this Sheet and therefore the NFPA takes no responsibility whatsoever for its contents and further the NFPA makes no warranty as to the accuracy or completeness of any information contained therein. This information is provided to help advance safety of mobile and temporary cooking operations. It is not intended to be a comprehensive list of requirements for mobile and temporary cooking operations. Check with the local jurisdiction for specific requirements. This safety sheet does not represent the official position of the NFPA or its Technical Committees. The NFPA disclaims liability for any personal injury, property, or other damages of any nature whatsoever resulting from the use of this information. For more information, go to nfpa.org/foodtrucksafety. FOR MORE INFORMATION go to nfpa.org/foodtrucksafety





# STANDATA

# FACT SHEET » Food Truck Safety (continued)

Code references are provided at the end of each item. The red keys correspond to the NFPA food truck safety diagram. For more detailed information, see Annex B in NFPA 96.

#### **G**ENERAL SAFETY CHECKLIST

 $\square$  Obtain license or permits from the Local Authority Having Jurisdiction. [SCA]  ${\bf G1}$ 

 $\square$  Ensure there is no public seating within the mobile food truck.  $\ensuremath{\text{G2}}$ 

- □ Check that there is a clearance of at least 3 m away from buildings, structures, vehicles, and any combustible materials. [NFPA 96:7.8.2; 96:7.8.3 NOTE: Check with Local Authority Having
- Jurisdiction] G3
- Verify fire department vehicular access is provided for fire lanes and access roads. [AFC 2.5.1.5.] G4
   Ensure clearance is provided for the fire department to access fire hydrants and access fire
- department connections. [AFC 2.5.1.4.] G5
   Check that appliances using combustible media are protected by an approved fire extinguishing system. [NFPA 96:10.1.2. B149.2:4.15] G6
- Verify portable fire extinguishers have been selected and installed in kitchen cooking areas in accordance with NFPA 10. [AFC 2.1.5.1., & 6.2, NFPA 96:10.9.3] G7a
- Where solid fuel cooking appliance produce grease-laden vapors, make sure the appliances are protected by listed fire-extinguishing equipment. [ABC 6.2.2.7., NFPA 96:14.7.1] G7b
- Ensure that workers are trained in the following: [NFPA 96:B.15.1] G8
  - Proper use of portable fire extinguishers and extinguishing systems [NFPA 10:1.2] G8a
     Proper method of shutting off fuel sources [NFPA 96:10.4.1] G8b
  - Proper procedure for notifying the local fire department [NFPA 1:10.14.9] G8c
  - □ Proper procedure for how to perform simple leak test on gas connections. [B149.1:4.4.2] G8d

# **F**UEL & POWER SOURCES CHECKLIST

- Verify that fuel tanks are filled to the capacity needed for uninterrupted operation during normal operating hours. Fla
- Ensure that refueling is conducted only during non-operating hours. [NFPA 96:B.18.3] F1b
- □ Check that any engine-driven source of power is separated from the public by barriers, such as physical guards, fencing, or enclosures. [NFPA 96:B.16.2.2] F2
- □ Ensure that any engine-driven source of power is shut down prior to refueling from a portable container. F3
- □ Check that surfaces of engine-driven source of power are cool to the touch prior to refueling from a portable container. F3a
- Make sure that exhaust from engine-driven source of power complies with the following: F4
   At least 3 m in all directions from openings and air intakes [NFPA 96:B.13] F4a
   At least 3 m from every means of egress [NFPA 96:B.13] F4b
   Directed away from all buildings F4c

Directed away from all other cooking vehicles and operations F4d

□ Ensure that all electrical appliances, fixtures, equipment, and wiring complies with the Canadian Electrical Code. F5

# For more of these resources, **become an NFPA member**

#### PROPANE SYSTEM INTEGRITY CHECKLIST

- Check that the main shutoff valve on all gas containers is readily accessible. [B149.5:5.3.5.6] P1
- Ensure that portable gas containers are in the upright position and secured to prevent tipping over. [B149.2:6.1.8 & 5.5] P2
- □ Inspect gas systems prior to each use. [NFPA 96:B.19.2.3] P3
- Perform leak testing on all new gas connections of the gas system. [B149.1:4.12.1 & 6.22.3] P4
- Perform leak testing on all gas connections affected by replacement of an exchangeable container. [B149.1:4.12.1 & 6.22.3] P5
- □ Document leak testing and make documentation available for review by the authorized official. [B149.1:6.22] P6
- □ Where a gas detection system is installed, ensure that it has been tested in accordance with the manufacturer's instructions. [NFPA 96:B.19.2.1] P7

# **O**PERATIONAL SAFETY CHECKLIST

- Do not leave cooking equipment unattended while it is still hot. (This is the leading cause of home structure fires and home fire injuries.) OA
- Operate cooking equipment only when all windows, service hatches, and ventilation sources are fully opened. [B149.1:4.25.6, NFPA 96:14.2.2 & 14.2.3] OB
- Close gas supply piping valves and gas container valves when equipment is not in use. [B149.2:5.12.5] OC
- □ Keep cooking equipment, including the cooking ventilation system, clean by regularly removing grease. [NFPA 96:11.4] OD

# Solid fuel safety checklist (where wood, charcoal, or other solid fuel is used)

Fuel is not stored above any heat-producing appliance or vent. [NFPA 96:14.9.2.2] SA
 Fuel is not stored closer than 0.92 m to any cooking appliance. [NFPA 96:14.9.2.2] SB
 Fuel is not stored near any combustible flammable liquids, ignition sources, chemicals, and food supplies and packaged goods. [NFPA 96:14.9.2.7] SC

Fuel is not stored in the path of the ash removal or near removed ashes. [NFPA 96:14.9.2.4] SD
 Ash, cinders, and other fire debris should be removed from the firebox at regular intervals and at least once a day. [NFPA 96:14.9.3.6.1] SE

□ Removed ashes, cinders, and other removed fire debris should be placed in a closed, metal container located at least 0.92 m from any cooking appliance. [NFPA 96:14.9.3.8] SF

#### REFERENCED DOCUMENTS

 Safety Codes Act and its Regulations
 National Building Code - 2019 Alberta Edition
 National Fire Code - 2019 Alberta Edition
 CSA C22.1-15 Canadian Electrical Code
 CSA B149.1-15 Natural Gas and Propane Installation Code

- CSA B149.2-15 Propane Storage and Handling Code
   CSA B149.5-15 Installation Code for Propane
- Fuel Systems and Containers on Motor Vehicles INFPA 10 Standard for Portable Fire
- Extinguishers, 2013 Edition INFPA 96, Standard for Ventilation Control and Fire Protection of Commercial Cooking

Operations, 2017 Edition

# FIRE/BUILDING ELECTRICAL CODE INTERPRETATION

STANDA

August 2020

19-FCI-007 19-BCI-015 18-CECI-009

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# **EXISTING FIRE ALARM SYSTEMS**

# PURPOSE

This identifies requirements where an existing fire alarm system, regardless of age, requires inspection, testing, maintenance and installation of devices or other equipment (e.g. maglocks) in order to provide or maintain an expected level of safety for occupants.

This also defines who is able to install, verify, inspect, test and maintain fire alarm systems.

# DISCUSSION

There are five types of activities conducted on a fire alarm system – installation, verification, inspection, testing and maintenance.

Installation includes a new install or additions, modifications and renovations (changes) to an existing installation.

Verification involves inspection and testing to verify the fire alarm system conforms to the design, and the applicable codes and standards, and performs all of its intended functions.

Inspection is a visual examination to determine the device or system will apparently perform in accordance with its intended function.

Testing is the operation of a device or system to determine it will perform in accordance with its intended operation or function.

Maintenance is the removal, replacement or servicing of devices or equipment found inoperative during an inspection and test of the fire alarm system or due to an inoperative device at any other time.

There are factors that influence the degree of work that may be necessary to an existing fire alarm system in order for it to provide the expected level of protection. The factors take into consideration the need for maintaining or changing systems that have been installed to "good engineering practice" prior to established codes and standards.

The factors also reflect how fire alarm systems installed under established codes and standards should be regarded when maintenance or changes are contemplated and to what degree the

Issuance of this STANDATA is authorized by the Provincial Fire/Building and Electrical Administrators [original signed] [original signed] [original signed] Tina Parker Paul Chang Clarence Cormier



Alberta Municipal Affairs – Community & Technical Support, 16<sup>th</sup> Floor, 10155 –102<sup>nd</sup> Street, Edmonton, Alberta, Canada, T5J 4L4 Phone: 1-866-421-6929 Email: <u>safety.services@gov.ab.ca</u> Website: <u>https://www.alberta.ca/safety-codes.aspx</u> requirements of the most current codes and standards apply in maintenance and changes to the systems.

The main codes containing specific requirements are the National Building Code–2019 Alberta Edition (NBC(AE)), National Fire Code–2019 Alberta Edition (NFC(AE)) and the Canadian Electrical Code (CE Code) 2018. These codes reference the following standards for the installation, verification, inspection and testing of fire alarm systems:

CAN/ULC-S524-14 Installation of Fire Alarm Systems CAN/ULC-S536-13 Inspection and Testing of Fire Alarm CAN/ULC-S537-13 Verification of Fire Alarm Systems CAN/ULC-S1001-11 Integrated Systems Testing of Fire Protection and Life Safety Systems

Installations, verifications, inspections, testing and maintenance of fire alarm and voice communication systems can only be completed by those qualified under Division C of the NFC(AE).

# CODE REFERENCES

Safety Codes Act states:

### Interpretation

1(1) In this Act,

(e) "Administrator" means an Administrator appointed under this Act;

# **Application of Act**

**2(1)** This Act applies to fire protection, barrier-free design and the design, manufacture, construction, installation, use, operation, occupancy and maintenance of

- a) buildings,
- b) electrical systems,
- c) elevating devices,
- d) gas systems,
- e) plumbing systems,
- f) pressure equipment, and
- g) private sewage disposal systems.

# NBC(AE) and NFC(AE) Preface states:

# Relationship between the NBC(AE) and the NFC(AE)

The National Building Code – 2019 Alberta Edition (NBC(AE)) and National Fire Code – 2019 Alberta Edition (NFC(AE)) each contain provisions that deal with the safety of persons in buildings in the event of a fire and the protection of buildings from the effects of fire.(2) These two Codes are developed as complementary and coordinated documents to minimize the possibility of their containing conflicting provisions. It is expected that buildings comply with both the NBC(AE) and the NFC(AE). The NBC(AE) generally applies at the time of construction and reconstruction while the NFC(AE) applies to the operation and maintenance of the fire-related features of buildings in use.

The scope of each of these Codes with respect to fire safety and fire protection can be summarized as follows:

The NBC(AE) covers the fire safety and fire protection features that are required to be incorporated in a building or facility at the time of its original construction. Building codes typically no longer apply once a building is occupied, unless the building is undergoing alteration or change of use, or being demolished.

The NFC(AE) includes provisions for:

- the on-going maintenance and use of the fire safety and fire protection features incorporated in buildings
- the conduct of activities that might cause fire hazards in and around buildings
- limitations on hazardous contents in and around buildings
- the establishment of fire safety plans
- fire safety at construction and demolition sites

In addition, the NFC(AE) contains provisions regarding fire safety and fire protection features that must be added to existing buildings when certain hazardous activities or processes are introduced in these buildings.

Some of the NFC(AE)'s provisions are not duplicated directly in the NBC(AE) but are in fact adopted through cross-references to the NFC(AE). Thus, some NFC(AE) provisions may apply to original construction, alterations, or changes in use.

#### NBC(AE) and NFC(AE) Article 1.4.1.2 of Division A states:

#### 1.4.1.2. Defined Terms

Approved means acceptable to the Provincial Fire Administrator.

Authority having jurisdiction means a safety codes officer in the building discipline exercising authority pursuant to designation of powers and terms of employment in accordance with the Safety Codes Act.

Authority having jurisdiction means a safety codes officer in the fire discipline exercising authority pursuant to designation of powers and terms of employment in accordance with the Safety Codes Act. (See Note A-1.4.1.2.(1).).

#### A-1.4.1.2.(1) Defined Terms. Authority Having Jurisdiction

The defined term "authority having jurisdiction" refers to a safety codes officer as the appointed individual responsible for decision-making in a number of areas. In most cases, this individual will be a member of an accredited municipal fire department. In municipalities that use accredited agencies for their inspection and enforcement, the fire department may not be involved. It is important that accredited municipalities employing accredited agencies properly designate the person(s) acting as the authority having jurisdiction.

In addition, municipalities using accredited agencies should ensure that the agency has a close working relationship with the fire department during the decision-making process.

*Provincial Building Administrator* means a person in the building discipline appointed as an Administrator under the Safety Codes Act.

*Provincial Fire Administrator* means a person in the fire discipline appointed as an Administrator under the Safety Codes Act.

*Registered engineering professional* means an individual who is authorized to engage in the practice of engineering under the Engineering and Geoscience Professions Act and its Regulations.

NBC(AE) Article 1.1.1.2. of Division A states:

# 1.1.1.2. Application to Existing Buildings

(See Note A-1.1.1.2.)

1) This Article applies to a *building* that has been legally built, occupied and used before 01 April 2019.

# STANDATA

- 2) If a *building* is altered, rehabilitated, refurbished, renovated or repaired, the level of life safety and *building* performance shall not be decreased.
- 3) Except as specified in Part 10 of Division B, the *authority having jurisdiction* shall accept any construction or condition that lawfully existed in Alberta before 01 April 2019 if the construction or condition does not constitute an *unsafe condition*.
- 4) A change in *occupancy* or *alteration* of any *building* constructed before 01 April 2019 shall be permitted if the level of safety and *building* performance proposed are acceptable to the *authority having jurisdiction*.
- 5) For a *building* constructed before 01 April 2019, the *authority having jurisdiction* may accept an alternative or a proposal that achieves the appropriate level of safety for the specific activity for which the *building* is to be used.
- 6) The *authority having jurisdiction* may accept existing construction not in complete compliance with this Code, in which case it may be accepted, subject to conditions.

**A-1.1.1.2. Application to Existing Buildings**. This Code is most often applied to existing or relocated buildings when an owner wishes to rehabilitate a building, change its use, or build an addition, or when an enforcement authority decrees that a building or class of buildings be altered for reasons of public safety. It is not intended that the NBC(AE) be used to enforce the retrospective application of new requirements to existing buildings or existing portions of relocated buildings. For example, although the NFC(AE) could be interpreted to require the installation of fire alarm, standpipe and hose, and automatic sprinkler systems in an existing building for which there were no requirements at the time of construction, it is the intent of the Safety Codes Council that the NFC(AE) not be applied in this manner to these buildings unless the authority having jurisdiction has determined that there is an inherent threat to occupant safety and has issued an order to eliminate the unsafe condition, or where substantial changes or additions are being made to an existing building or the occupancy has been changed. (See also Note A-1.1.1.1(1) of Division A of the NFC(AE).)

Relocated buildings that have been in use in another location for a number of years can be considered as existing buildings, in part, and the same analytical process can be applied as for existing buildings. It should be noted, however, that a change in occupancy may affect some requirements (e.g. loads and fire separations) and relocation to an area with different wind, snow or earthquake loads will require the application of current code requirements. Depending on the construction of the building and the changes in load, structural modifications may be required. Similarly, parts of a relocated or existing building that are reconstructed, such as foundations and basements, or parts being modified are required to be built to current codes. Whatever the reason, Code application to existing or relocated buildings requires careful consideration of the level of safety needed for that building. This consideration involves an analytical process similar to that required to assess alternative design proposals for new construction. See Clause 1.2.1.1.(1)(b) for information on achieving compliance with the Code using alternative solutions.

In developing Code requirements for new buildings, consideration has been given to the cost they impose on a design in relation to the perceived benefits in terms of safety. The former is definable; the latter difficult to establish on a quantitative basis. In applying the Code requirements to an existing building, the benefits derived are the same as in new buildings. On the other hand, the increased cost of implementing in an existing building a design solution that would normally be intended for a new building may be prohibitive.

The successful application of Code requirements to existing construction becomes a matter of balancing the cost of implementing a requirement with the relative importance of that requirement to the overall Code objectives. The degree to which any particular requirement can be relaxed without affecting the intended level of safety of the Code requires considerable judgment on the part of both the designer and the authority having jurisdiction.

Further information on the application of Code requirements to existing or relocated buildings may be found in the following publications:

- "User's Guide NBC 1995, Fire Protection, Occupant Safety and Accessibility (Part 3)"
- "Guidelines for Application of Part 3 of the National Building Code of Canada to Existing Buildings"
- Commentary entitled "Application of NBC Part 4 of Division B for the Structural Evaluation and Upgrading of Existing Buildings" of the "Structural Commentaries (User's Guide – NBC 2015: Part 4 of Division B)"
- "User's Guide NBC 1995, Application of Part 9 to Existing Buildings"
- CBD 230, "Applying Building Codes to Existing Buildings"

These publications can be ordered through NRC's website.

#### NBC(AE) Article 3.2.4.5. of Division B states:

#### 3.2.4.5. Installation and Verification of Fire Alarm Systems

- 1) Except as permitted by Articles 3.2.4.10. and 3.2.4.19., fire alarm systems, including the voice communication capability where provided, shall be installed in conformance with CAN/ULC-S524, "Installation of Fire Alarm Systems."
- 2) Fire alarm systems shall be verified in conformance with CAN/ULC-S537, "Verification of Fire Alarm Systems," to ensure they are operating satisfactorily.

#### NBC(AE) Article 2.4.2.4. of Division C states:

#### 2.4.2.4. Fire Alarm System Designs

If a fire alarm system is to be installed in a *building* described in Sentence 2.4.2.1.(4) or (5), the *owner* shall submit evidence to the *authority having jurisdiction*, before construction begins, that they have retained a *registered engineering professional* to a) design the system,

b) perform *field reviews* of the system during installation, and

c) witness verification of the system after installation.

NFC(AE) Article 2.1.1.1. of Division A states:

#### 2.1.1.1. Application

1) This Part applies to all *buildings* and facilities covered in this Code. (See Article 1.1.1.1.)

NFC(AE) Article 6.1.1.1 of Division B states:

#### 6.1.1.1. Application

1) This Part includes requirements for the inspection, testing, maintenance, and operation of portable extinguishers, water-based fire protection systems, special extinguishing systems, fire alarm systems,

#### NFC(AE) Sentence 6.3.1.2.(1) of Division B states:

#### 6.3.1.2. Inspection and Testing

1) Fire alarm systems shall be inspected and tested in conformance with CAN/ULC-S536, "Inspection and Testing of Fire Alarm Systems."

# NFC(AE) Article 2.2.4.3. of Division C states:

# 2.2.4.3. Fire Alarm and Voice Communication Systems

1) Only qualified persons shall install, test or perform maintenance on fire alarm and voice communication systems when they have acquired an *approved* certificate of

training from

a) a public post-secondary educational institution, or

b) the Canadian Fire Alarm Association (CFAA).

(See Note A-2.2.4.3.(1).)

**A-2.2.4.3.(1)** The types of training provided and other provincial legislation may limit the scope of activities a qualified person may perform on such systems.

Persons are considered qualified to make operational, inspect, test and maintain fire alarm and voice communication systems when they have acquired a certificate of training in this area of study from

- a) a public post-secondary educational institution, including:
  - i) an Alberta Journeyman's Electrician certificate on or after September 1, 1991,
  - ii) an Alberta Journeyman's Electrician certificate prior to September 1, 1991 and a fire alarm course\* recognized by the Provincial Fire Administrator,
  - iii) a Canadian Red Seal Journeyman's Electrician certificate and a fire alarm course\* recognized by the Provincial Fire Administrator, or
- b) Fire Alarm Technician certification issued by the Canadian Fire Alarm Association (CFAA).

Persons are considered qualified in the installation of fire alarm and voice communication systems when they have acquired

- a) an Alberta Journeyman's Electrician certificate on or after September 1, 1991,
- b) an Alberta Journeyman's Electrician certificate prior to September 1, 1991 and have completed a fire alarm course\* recognized by the Provincial Fire Administrator, or
- c) a Canadian Red Seal Journeyman's Electrician certificate and have completed a fire alarm course\* recognized by the Provincial Fire Administrator.

Fire alarm verifications are generally the responsibility of a licensed engineering professional. In Alberta, this must be the registered professional who will complete a Schedule "C" under the National Building Code – 2019 Alberta Edition.

# APPLICATION

This interpretation applies to all buildings where a fire alarm system is currently in use and the fire alarm undergoes installation (changes), verification, inspection, testing and maintenance.

# INTERPRETATION

This interpretation will simplify the requirements for installation (changes), verification, inspection, testing and maintenance to fire alarm systems in existing buildings. Only those qualified as per the NFC(AE) can complete these types of activities.

The five types of activities that can be done on an existing fire alarm system include: installation (changes), verification, inspection, testing and maintenance. Maintenance is typically the removal and replacement of devices found inoperative during a regular annual inspection and test of the fire alarm system or due to an inoperative device at any other time. Qualified electricians and fire alarm technicians can complete this activity as per NFC(AE) Division C. Only qualified electricians can replace or repair wiring.

For fire alarm systems installed under previous Alberta editions of the building code, equal exchange (like for like device replacement) of devices are acceptable. However, if the replacement is not an equal exchange, the following scenarios shall be followed:

• Change of use or modernization of the building - the current NBC(AE) shall be applied.



No change of use – in this situation, upgrading to the current Building Code could be onerous and according to NFC(AE) Division A, Article 1.1.1.2. the owner may apply to the *authority having jurisdiction* (AHJ) (Building) for an alternative solution detailing the reasons why they need a fire alarm replaced and why they want to install a new fire alarm to an older edition of the Alberta Building Code and/or CAN/ULC standard.
 Note: Where the NBC(AE) requires professional involvement for a building due to its size, occupancy, or complexity, a *registered engineering professional* is also required to upgrade or modify existing fire alarm systems.

If a fire alarm system requires additions or modifications, these changes are still categorized as installs and, along with complete new installs, can only be completed by a qualified electrician. The following chart shows the work which an electrician or fire alarm technician can complete:

# Work Acceptable Under the Electrician Trade Regulation and the NFC(AE)

INSTALLATION & MAINTENANCE OF FIRE ALARM SYSTEMS		
	ELECTRICIAN	TECHNICIAN
Installation	✓	×
Inspection	✓	$\checkmark$
Testing	✓	$\checkmark$
Maintenance	✓ (1)	✓ (1)
Additions / Renovations	✓	×
Audit System (under AFC 6.3.1.6.)	<b>x</b> (2)	<b>x</b> (2)

1) Certified electricians and technicians must be qualified under the NFC(AE).

 Certified electricians and technicians qualified as per the NFC(AE) may perform an audit where professional engineering involvement is not required as per the NBC(AE).
 NOTES:

- a) Apprentice electricians may complete all of the work an electrician is able to, as long as the apprentice is competent to complete the work. The apprentice also has to be under the supervision of a journeyperson electrician as per the Apprentice Program Regulation and the Electrician Trade Regulation.
- b) A CFAA Fire Alarm Trainee (a trainee is one that is actively enrolled within the CFAA fire alarm technician program) may complete all of the work a certified technician is able to, as long as they are competent to complete the work. The CFAA Fire Alarm Trainee also has to be under the supervision of a certified technician.
- c) Where the table indicates inspections can only be completed by a qualified person, the daily and monthly inspections required by CAN/ULC-S536 are exceptions. These daily and monthly inspections and tests may be completed by the *owner* or the *owner*'s representative who have received training from the manufacturer or service provider on their system.

All additions or modifications to a fire alarm system must be reviewed and accepted by the Building *Authority Having Jurisdiction*. Permits are often required for modifications and additions to the fire alarm system. The Safety Codes Act – Permit Regulation sets out the requirements for permits under both the building and electrical disciplines. The local *Authority Having Jurisdiction* must be contacted prior to any work being conducted on any fire alarm system.

Fire alarm's system verification must be in accordance with CAN/ULC S537 Verification of Fire Alarm Systems.



Please refer to STANDATA <u>19-BCI-014R1</u> Fire Alarm and Fire Suppression System Verification and Testing Certificates.

This INTERPRETATION replaces the following: FCI-08-06 and 14-FCI-006R1 Existing Fire Alarm Systems.

This INTERPRETATION is applicable throughout the province of Alberta.