

Persons Qualified to Maintain Fire Alarm and Detection Systems

Issue:

A number of enquiries have been received regarding out of province or Red Seal program electricians working or being permitted to work on fire alarm systems in Alberta.

An individual certified under the Red Seal program would be permitted to install fire alarms however the inspection, testing and maintenance of such systems would not be permitted unless the individual has received specific fire alarm system training through an acceptable post-secondary institution in Alberta.

Background:

The Alberta Fire Code 1984 introduced the requirement for persons maintaining fire alarm and detection systems to be approved. An industry wide consultation process was initiated resulting in recommendations for the industry and educational institutes to develop training standards for individuals who have backgrounds in fire alarm systems. These individuals are manufacturer trained technicians, certified electricians, electronics technicians, electrical engineering technologists or professional electrical engineers.

It was also recognized that only a certified electrician may install or maintain “electrical systems” as defined by the Electrician Trade Regulation under the Apprenticeship and Industry Training Act, and applies to maintenance, additions, extensions and renovations to fire alarm systems. On the other hand, the Alberta Fire Code addressed persons maintaining fire alarm systems and recognized the fire alarm technician as an individual qualified to do the maintenance.

The distinction between the Trade Regulation and the Fire Code is that only a certified journeyman electrician or an electrical apprentice under the guidance of a journeyman may install a fire alarm system. A fire alarm technician qualified under the Fire Code may only maintain a fire alarm system.

The Canadian Electrical Code supports the position with the definition of:

“electrical installation” means the installation of any wiring in or upon any land, building, or premises from the point or points where electrical power or energy is delivered therein or thereon by the supply authority or from any other source of supply, to the point or points where such power or energy can be used therein or thereon by any electrical equipment and shall include the connection of any such wiring with any of the said equipment, and any part of the wiring aforesaid, and shall also include the maintenance, alteration, extension, and repair of such wiring.

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The Fire Code further supports the electrical trades area by recognizing that only an electrician certified under the Electrician Trade Regulation of the Apprenticeship and Industry Training Act may install, add to or alter a fire alarm system. Through this regulation, the Fire Code acknowledges that a certified electrician installing a fire alarm system does not also have to be qualified under the Fire Code but must meet requirements of the Trade Regulation.

However, only:

- journeyman electricians certified in Alberta after September 1, 1991,
- journeyman electricians certified in Alberta prior to September 1, 1991 who have taken an acceptable fire alarm upgrading course from an Alberta post-secondary institution (see below), or
- journeyman electricians certified outside of Alberta who are eligible to work in Alberta and who have taken an acceptable fire alarm upgrading course from an Alberta post-secondary institution (see below), and
- fire alarm technicians trained by an Alberta post-secondary institution (see below) or the Canadian Fire Alarm Association.

are deemed qualified under the Fire Code to maintain a fire alarm system.

The term “**maintenance**”, as used by the Fire Code, includes the removal and replacement of devices found inoperative during the regular annual inspection and test of the fire alarm system. According to the Electrical Trades Regulation this is deemed as electrical work and only a certified electrician is permitted to perform it. However, the Apprenticeship and Industry Training Act could allow for and recognize specialized training of individuals who do certain work in a designated trade area. In this case, fire alarm technicians who have taken the necessary post secondary training for the maintenance of fire alarm systems would be permitted to perform the electrical work necessary to inspect, test and maintain a fire alarm system. **This includes the removal and replacement of devices and any work deemed as being electrical work other than installation.**

Work Acceptable Under the Electrician Trade Regulation and the Alberta Fire Code 2006

INSTALLATION & MAINTENANCE OF FIRE ALARM SYSTEMS		
	ELECTRICIAN	TECHNICIAN
Installation	✓	✗
Maintenance	✓ (1)	✓ (1) & (2)
Verify Installation	✗ (3)	✗ (3)
Certify Installation	✗	✓ (2)
Additions / Renovations	✓	✗
Audit System	✗ (3)	✗ (3)

(1) Certified electricians, and technicians must be qualified under the Alberta Fire Code to perform maintenance on fire alarm systems.

(2) Manufacturer’s technicians can certify or commission a fire alarm system for the purposes of the manufacturer’s warranty. Manufacturer’s technicians must be qualified under the Alberta Fire Code to perform maintenance on fire alarm systems.

(3) Certified electricians, technologists and technicians qualified under the Alberta Fire Code can verify a fire alarm system or perform an audit where professional engineering involvement is not required as per the Alberta Building Code.

Intent:**Individuals qualified to inspect, test and maintain fire alarm systems under the Fire Code****Certified Electrician:**

- (a) certified before September 1, 1991, having completed recognized post secondary training for fire alarm system maintenance and approved under previous editions of the Alberta Fire Code,
- (b) certified as an Alberta electrician after September 1, 1991, **or**
- (c) journeyman electricians certified outside of Alberta who are eligible to work in Alberta and who have taken an acceptable fire alarm upgrading course from an Alberta post-secondary institution (see below).

Fire Alarm Technician:

- (a) completed the electrical technician training for fire alarm system maintenance through recognized post-secondary training, **or**
- (b) a fire alarm technician certified by the Canadian Fire Alarm Association.

Identification:

At the request of the AHJ, an individual would have to furnish proof of their qualifications. It is up to the individual to secure the necessary documentation showing how they are qualified. The Alberta Fire Safety Association and the Alberta Electrical Contractors Association offer an optional identification card for persons who have completed the necessary training in order to qualify under Article 2.2.4.1. of Division C of the Alberta Fire Code.

Recognized Training Sources:

Alberta Municipal Affairs and the Safety Codes Council recognize the following organizations as providing the courses and training necessary for individuals to be considered qualified for the inspection, testing and maintenance of fire alarm systems as required by the Alberta Fire Code.

1. Northern Alberta Institute of Technology (NAIT) - Edmonton
2. Southern Alberta Institute of Technology (SAIT Polytechnic) - Calgary
3. Canadian Fire Alarm Association – Alberta Chapter and Ontario Administrative Offices