



Purpose

This guideline has been developed to help improve consistency with the design, installation, education and enforcement of fire alarm and fire suppression systems for new/renovated permit construction involving any type of building.



Code Reference

Current National Building Code – Alberta Edition
2019 NFPA-13 – Installation of Sprinkler Systems
2019 CAN/ULC-S524 – Installation of Fire Alarm Systems
2019 CAN/ULC-S537 – Verification of Fire Alarm Systems
STANDATA-19-BCI-014R1 – Fire Alarm and Fire Suppression System Verification and Testing Certificates
STANDATA-19-BCI-015 – Existing Fire Alarm Systems
Rocky View County Guideline – Commissioning



Summary

The requirements of this guideline provide clarity towards the options available for ensuring compliance to the current National Building Code – Alberta Edition when installing a fire alarm and fire suppression system.



Interpretation

This guideline provides clarity and direction from Rocky View County on their interpretation of the design and installation of fire alarm and fire suppression systems. Based on the information provided within this guideline, fire alarm and fire suppression systems shall be installed based on the following criteria.

1. Definitions - As per the current National Building Code – Alberta Edition
 - a) *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. Maintenance involves removal and replacement of devices “like for like”

- b) *Installation* - Includes a new install or additions, modifications, and renovations (changes) to an existing installation.
- c) *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.

2. Fire Alarm Systems

- a) Permit Requirements: A building and electrical permit are required for any fire alarm installation or alteration. Maintenance to an existing fire alarm system does not require permits. Replacement of a control panel does not classify as maintenance work even if the exact replacement is available.
- b) Professional Involvement: Professional involvement is required for any installation or alteration of a fire alarm system. Plans showing full details of the proposed fire alarm system shall be imprinted with a stamp or seal of an electrical Engineer. Stamped plans and Schedules A & B must be submitted with the building permit application.
- c) Minor Alterations: A minor alteration to an existing system may only require an electrical Engineer’s scope of work letter submitted at the building permit application stage, and a final verification letter when the work is completed. A minor alteration would include adding or relocating up to 10 field devices or auxiliary equipment. Examples include fire detectors, sprinkler system tamper and flow switches, audible/visible signal devices, maglocks, elevator recall, and manual stations. A minor alteration may also include changing or modifying a fire alarm control panel, if no field devices are changed.

3. Fire Suppression Systems

- a) Permit Requirements: A building permit is required for any installation or alteration of a fire suppression system. Alterations to a fire suppression system includes the installation of new, or relocation of existing sprinkler heads. Maintenance to an existing fire suppression system does not require a building permit.
- b) Professional Involvement: Professional involvement is required for any installation or alteration of a fire suppression system. Plans showing full details of the proposed fire suppression system shall be imprinted with a stamp or seal of a mechanical Engineer. Schedules A & B are required at the time of application, and plans must be submitted and approved prior to installation.
- c) Minor Alterations: A minor alteration to an existing fire suppression system may only require a mechanical Engineer’s scope of work letter submitted at the building permit application stage, and a final verification letter when the work is completed. A minor alteration involves adding or relocating up to 9 heads.



4. Documentation Prior to Inspection

- a) Verification - In all cases any installation or alteration of a fire alarm or fire suppression system shall be verified and tested by qualified personnel under the direction of the professional Engineer. Verification must be done in accordance with the applicable standards such as NFPA 13, CAN/ULC-S537, the National Building Code Alberta Edition and the Canadian Electrical Code. The forms at the end of this document (taken from STANDATA 19-BCI-014R1 Fire Alarm and Fire Suppression System Verification and Testing Certificates) must be submitted and stamped by a registered professional after the work is completed.
- b) Schedules - With the exception of minor alterations, C-Schedules from the registered professional(s) must be submitted after work is completed. For a minor alteration, a letter must be submitted by an Engineer to ensure the installation was completed as outlined in the original scope of work and meets the applicable codes and standards.
- c) Commissioning / Re-commissioning of Systems – Where a new building is constructed, an addition is completed, or where a renovation takes place within an existing space (where commissioning has previously taken place), which affects the life safety or fire protection systems as they were previously functioning, commissioning, or re-commissioning of the life safety and fire protection systems must be completed. See our online Commissioning guideline for additional details.



FIRE ALARM SYSTEM VERIFICATION

_____ on behalf of
Name of Company or Person Performing Verification

_____ has carried out an on-site verification of the Fire Alarm System installed at:
Name of Building Owner or Designer/Design-Registered Engineering Professional

_____ *Address of Installation (City/Town)*

This verification was carried out in accordance with CAN/ULC-S537, "Verification of Fire Alarm Systems," as required by Sentence 3.2.4.5.(2) of Division B of the National Building Code-2019 Alberta Edition.

_____ hereby confirms that
Name of Company or Person Performing Verification

on _____, the Fire Alarm System as installed was reviewed for conformance with
Month/Day/Year
drawings and specifications originally prepared by:

_____ and subsequently
Name of Designer
updated to "As-Built" status by: _____
Name of Contractor

The Fire Alarm System was tested on _____ and found to be fully operational in
Month/Day/Year
accordance with:

- 1. The National Building Code-2019 Alberta Edition,
- 2. CAN/ULC-S524-14, "Installation of Fire Alarm Systems," and
- 3. The Electrical Regulations made pursuant to the Safety Codes Act.

_____ *Name of Company or Person Performing Verification*

_____ *Signature of Person Responsible for Verification*

Note: Modifications of the Fire Alarm System after _____ will invalidate this
Month/Day/Year
Verification Certificate.

_____ *Signature of Person Assuming Responsibility for Verification*



FIRE SUPPRESSION SYSTEM TEST

_____ on behalf of
Name of Company or Person Performing Test

_____ has carried out an on-
Name of Building Owner or Designer/Design -Registered Engineering Professional
site test of the Fire Suppression System installed at:

_____ *Address of Installation (City/Town)*
This test was carried out in accordance with the appropriate NFPA standard noted below, as required by Sentence 3.2.5.12.(1) of Division B of the National Building Code-2019 Alberta Edition .

_____ hereby confirms that
Name of Company or Person Performing Test
on _____, the Fire Suppression System as installed was reviewed for conformance with
Month/Day/Year
drawings and specifications originally prepared by:

_____ and subsequently
Name of Designer
updated to "As-Built" status by: _____
Name of Contractor

The Fire Suppression System was tested on _____ and found to be fully operational in
Month/Day/Year
accordance with:

1. The National Building Code-2019 Alberta Edition, and
2. The appropriate NFPA standard indicated below (check only one):
 - NFPA 13-2013, "Installation of Sprinkler Systems,"
 - NFPA 13R-2013, "Installation of Sprinkler Systems in Residential Occupancies up to and Including Four Stories in Height,"
 - NFPA 12-2011, "Carbon Dioxide Extinguishing Systems,"
 - NFPA 16-2011, "Installation of Foam-Water Sprinkler and Foam-Water Spray Systems,"
 - NFPA 17-2009, "Dry Chemical Extinguishing Systems,"
 - NFPA 17A-2009, "Wet Chemical Extinguishing Systems,"
 - NFPA 96-2017, "Ventilation Control and Fire Protection of Commercial Cooking Operations."

_____ *Name of Company or Person Performing Test* _____ *Signature or Person Responsible for Test*
Note: Modifications of the Fire Suppression System after _____ will invalidate
Month/Day/Year
this Testing Certificate.

Signature of Person Assuming Responsibility for Test



Reference

Approval Date

- October 2024

Last Review Date

- October 2024