

## Purpose

The purpose of the guideline is to create consistency with the education and enforcement of the Alberta Building Code, and the requirement for commissioning of the life safety systems as a whole.

The Alberta Building Code, and the Alberta Fire Code currently require that where life safety and fire protection systems are installed, commissioning of these systems must be performed as a whole to ensure proper operation and inter-relationship between the systems.



## Code Reference

National Building Code – 2019 Alberta Edition Division B Article 3.2.9.1. & 9.10.1.2.

2015 Illustrated Users Guide – NBC 2015 Part 9 of Division B Housing and Small Buildings Article 9.10.1.2.

National Fire Code – 2019 Alberta Edition Article 6.8.1.1.

CAN/ULC-S1001 Integrated Systems Testing of Fire Protection and Life Safety Systems



## Summary

The requirements within this Guideline are applicable to and provide clarity on the requirements regarding the commissioning of Life Safety System for Commercial or Industrial buildings constructed under the National Building Code – 2019 Alberta Edition.



## Conclusion

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.

The intent behind commissioning is to ensure that the overall system is tested to verify the integrated operation of the system using the Integrated Systems Testing (IST) process. Components that must be tested to ensure they are functioning according to the intent of their design include components such as the fire alarm system, sprinklers, standpipes, smoke control, ventilation, pressurization, door hold-open devices, elevator recalls, smoke and fire shutters and dampers, emergency power, emergency lighting and any other applicable components.

1. New Building – Where a new building is constructed, commissioning of the overall system must be tested to verify the integrated operation of the system using the Integrated Systems Testing process.
2. Addition to a Building – Where an addition to an existing building is constructed, re-commissioning of the overall system must be tested to verify the integrated operation of the system using the Integrated Systems Testing process. This process is only required for additions which occur on existing building that were initially constructed after November 1, 2015.
3. Renovations / Alterations to an Existing Building - Where renovation or alterations to an existing building are completed which require alterations to the existing life safety systems, re-verification of the individual systems and re-commissioning of the overall system may be required depending on the scope of the work. The systems must be re-tested to verify the integrated operation of the system using the Integrated Systems Testing process. This process is only required for renovations or alterations which occur on existing buildings that were initially constructed after November 1, 2015.
4. Who performs the Testing – It is expected a qualified person or a registered engineering professional be retained as the Integrated Testing Coordinator. The integrated testing coordinator prepares integrated testing plans for each building or facility. All integrated testing plans are expected to include a plan that allows for future periodic integrated systems testing and integrated systems testing after modifications.
5. Documentation for the SCO - A verification letter signed by the Integrated Testing Coordinator, must be provided to the SCO as confirmation that integrated systems testing has been completed and that the systems are working PRIOR to occupancy of the building or space being granted. Depending on the complexity of the project, the SCO may also request a copy of the integrated testing plan and a report of the test results.



## Additional Information

### **STANDATA 14-BCB-005 / 14-FCB-004 Commissioning of Life Safety and Fire Protection Systems (Integrated System Testing)**

<http://www.municipalaffairs.alberta.ca/documents/14-BCB-005-14-FCB-004-CommissioningV8.pdf>

### **Example of a Verification Letter for Commissioning of Integrated Systems Testing of Fire Protection and Life Safety Systems**

See Document provided on next page



## Reference

Approval Date	• March, 2020
Last Review Date	• March, 2020

**COMMISSIONING**  
**Integrated Systems Testing of Fire Protection and Life Safety Systems**

\_\_\_\_\_ on behalf of  
*Name of Company or Person Performing Integrated Systems Testing*  
*(INTEGRATED TESTING COORDINATOR)*

\_\_\_\_\_ has developed  
*Name of Building Owner or Designer/Design Engineer*  
and implemented the integrated testing plan at

\_\_\_\_\_ *Address of Installation (Municipality)*  
This test was carried out as required by Article 3.2.4.6 & Article 9.10.1.2. of Division B of the Alberta Building Code 2014, and in accordance with the appropriate standard noted below.

\_\_\_\_\_ hereby confirms that  
*Name of Company or Person Performing Integrated Systems Testing*

on \_\_\_\_\_, the integrated testing was performed in accordance with integrated  
*Month/Day/Year*  
testing plan to ensure proper operation & inter-relationship between the systems per original design prepared by \_\_\_\_\_

*Name of Designer*  
And subsequently updated to "As-Built" status by: \_\_\_\_\_

*Name of Contractor*  
The integrated testing was performed on \_\_\_\_\_ and proper operation and  
*Month/Day/Year*

inter-relationship between the systems found to be fully operational in accordance with:

1. The Alberta Building Code 2014, and
2. CAN/ULC S1001-11 Standard for Integrated Systems Testing of Fire Protection and Life Safety Systems.

Interconnection between the following integrated systems subject to the testing:

- |  |  |
|--|--|
| <input type="checkbox"/> fire alarm systems,             | <input type="checkbox"/> elevator recalls,                           |
| <input type="checkbox"/> sprinkler & standpipes systems, | <input type="checkbox"/> emergency power,                            |
| <input type="checkbox"/> fire pumps                      | <input type="checkbox"/> emergency lighting,                         |
| <input type="checkbox"/> electromagnetic locks,          | <input type="checkbox"/> smoke and fire shutters and dampers,        |
| <input type="checkbox"/> door hold-open devices,         | <input type="checkbox"/> smoke control, ventilation, pressurization, |
| <input type="checkbox"/> kitchen fire suppression        | <input type="checkbox"/> other _____                                 |

\_\_\_\_\_ *Name of Company or Person Performing Integrated Systems Testing*

\_\_\_\_\_ *Signature or Person Responsible for Test*

Modifications to the integrated system after \_\_\_\_\_ will invalidate this Certificate.  
*Month/Day/Year*