

CAN/ULC S537-04

APPENDIX "A" ("C" INFORMATIVE)

C1. FIRE ALARM SYSTEM VERIFICATION REPORT

(Reference: Clause 3.1.6, 3.1.7, 3.2.2)

Electrical Permit No. EL- _____	Date: _____
Address: _____	
New FAS <input type="checkbox"/>	Existing FAS <input type="checkbox"/> (See Note 1)
System Manufacturer: _____	Model Number: _____

A System provides single-stage operation.	Yes <input type="checkbox"/>	No <input type="checkbox"/>	
B System provides two-stage operation.	Yes <input type="checkbox"/>	No <input type="checkbox"/>	
C The <i>entire fire alarm system</i> has been verified in accordance with CAN/ULC-S537-04, <i>Standard for Verification of Fire Alarm Systems</i> .	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
D This is a partial verification for a partial occupancy.	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
E Components of the existing <i>Fire Alarm System</i> have been modified or replaced with components from a different manufacturer and are compatible with the existing <i>Fire Alarm System</i> components. (See Note 2)	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
F This is a partial verification for a <i>Fire Alarm System</i> that has been replaced in stages.	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
G This is a verification of a portion of an existing <i>Fire Alarm System</i> verified in accordance with Section 6, <i>System Modifications</i> .	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
H Installed in accordance with the design and CAN/ULC-S524, <i>Standard for the Installation of Fire Alarm Systems</i> .	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
I The <i>Fire Alarm System</i> documentation is on site and includes a description of the system.	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
J The <i>Fire Alarm System</i> is now fully functional without deficiencies. (See Note 3)	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
K The <i>Fire Alarm System</i> is connected to an acceptable central monitoring station via a supervised circuit of a ULC listed transmitter approved for the purpose. If "Yes", the name and location of the central monitoring station is: _____ ULC "Central Station Fire Protective Signalling Service" Certificate Number: _____ which is issued for the above noted central monitoring station address is <input type="checkbox"/> is not <input type="checkbox"/> attached.	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
L Comments: _____ _____			
M A copy of this report will be given to: _____ who is the owner or owner's representative for this <i>building</i> .	Yes <input type="checkbox"/>	No <input type="checkbox"/>	

CERTIFICATION					
This certifies that the information contained in this <i>Fire Alarm System Verification Report</i> (which incorporates the attached _____ pages) is correct and complete. The system and equipment described here-in was tested/inspected in conformance with CAN/ULC-S537-04 by a qualified technician. The equipment was left in an operational condition except as noted above. A copy of this report must be maintained on the premises for examination by the Fire Marshal, Building Inspector, or other <i>Authority Having Jurisdiction</i> at their request.					
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="background-color: #000080; color: white; padding: 2px;">Verified By:</td> <td style="background-color: #000080; color: white; padding: 2px;">Contact Information:</td> </tr> <tr> <td style="height: 100px; vertical-align: bottom; background-color: #000080; color: white; padding: 5px;">Technician</td> <td style="background-color: #000080; color: white; padding: 5px; text-align: center; vertical-align: bottom;">Certificate Number: _____</td> </tr> </table>	Verified By:	Contact Information:	Technician	Certificate Number: _____	
Verified By:	Contact Information:				
Technician	Certificate Number: _____				

NOTES:

1. Extent of Verification of the existing FAS: _____
2. If "Yes", ULC test report/compatibility listing is attached.
3. The identified deficiencies relate to:
 - (a) the existing portion of the FAS not covered by the scope of work under the above referenced permit.
 - (b) the newly installed FAS (or modified/added portion of FAS) under the above referenced permit.

Company Logo Company Contact Information	Date of Service:		Last Service Date:		
	Audit <input type="checkbox"/> Single Stage <input type="checkbox"/>		Verification <input type="checkbox"/> Two Stage <input type="checkbox"/>		Special Inspection <input type="checkbox"/> Direct Connection <input type="checkbox"/> yes <input type="checkbox"/> no
	Manufacturer:		Model Number:		
	Building Name/Project Number/Legal Description:		Contact Person:		Phone:
Address:		Owner/Strata Number:		Fax:	
City:	Postal Code:	Monitoring/Central Station:		Phone:	
				Fax:	

"Yes"- Acceptable "No" - Unacceptable "NA" - Not Applicable

Yes	No	General Summary
<input type="checkbox"/>	<input type="checkbox"/>	The fire alarm system is now fully functional with <input type="checkbox"/> without <input type="checkbox"/> deficiencies.
<input type="checkbox"/>	<input type="checkbox"/>	Remarks concerning the fire alarm system have been made.
<input type="checkbox"/>	<input type="checkbox"/>	The fire alarm system was installed prior to 1992.
<input type="checkbox"/>	<input type="checkbox"/>	The fire alarm system has been tested in accordance with ULC CAN4-S537-04.
<input type="checkbox"/>	<input type="checkbox"/>	The system is labelled as having been tested in accordance with ULC CAN4-S537-04.
<input type="checkbox"/>	<input type="checkbox"/>	Sequence of operation confirmed and tested.

Yes	No	Documentation
<input type="checkbox"/>	<input type="checkbox"/>	Instructions for resetting the system and silencing the alarm signals.
<input type="checkbox"/>	<input type="checkbox"/>	Instructions for silencing the trouble signal and action to be taken when the trouble signal sounds.
<input type="checkbox"/>	<input type="checkbox"/>	Description of the function of each operating control and indicator on the fire alarm control unit.
<input type="checkbox"/>	<input type="checkbox"/>	Description of the area or fire zone protected by each alarm detection circuit.
<input type="checkbox"/>	<input type="checkbox"/>	Description of alarm signal operation.
<input type="checkbox"/>	<input type="checkbox"/>	Description of ancillary equipment controlled by the fire alarm system.

Yes	No	NA	Off-Site Monitoring Checklist (Detail exceptions in "Comments" area below.)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Monitoring connections are properly supervised.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The communicator is ULC listed for fire alarm monitoring.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The Monitoring/Central Station is ULC listed for fire alarm monitoring.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The Monitoring/Central Station is approved by the Local Jurisdictional Authority.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Check that signals were received at the central monitoring facility.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The installation is ULC certificated. The last inspection date was: _____
Certificate No.:		Expiry Date:	Servicing Agency:
Communicator Type: DVACS/Direct <input type="checkbox"/> Dual-Line Digital <input type="checkbox"/> Radio <input type="checkbox"/> Cellular <input type="checkbox"/> Single-Line Digital <input type="checkbox"/> Signal Types Received: Alarm <input type="checkbox"/> Supervisory <input type="checkbox"/> Trouble <input type="checkbox"/> Tamper <input type="checkbox"/> Other: _____			
Note:	Ensure that the number of signals received is not limited by event (this feature is often called "Swinger Shutdown" and must be disabled). The station may request a limit on the number of signals systems generate during testing. Please note this request in the "Comments" area below and ensure full functionality is restored following completion of testing.		

Remarks/Comments			
<p>The information on this form (and in the documents attached here-to) attest to the fact that the equipment listed here-in was tested/inspected in conformance with applicable codes, bylaws, standards, and the manufacturer's requirements by a qualified technician. The equipment was left in an operational condition except as noted in the spaces marked "comments". This document has been provided to the building owner (or their authorized representative) who has acknowledged receipt of same below. A copy should be maintained on the premises for examination by the Fire Marshal or Inspector at their request.</p>			
Company Name			
Technician	Date	Permit Number	Owner or Authorized Agent

Date:		<input type="checkbox"/> Audit	<input type="checkbox"/> Verification
Building Name:		Address:	

“✓” = Yes - Tested correctly “X” = No - Did not test correctly (NO answers are detailed in “Comments/Remarks”) “NA” = Not applicable

C5.1 Control Unit or Transponder Tests

Location: _____

- _____ Power on visual indicator operates?
- _____ Common visual trouble signal operates?
- _____ Common audible trouble signal operates?
- _____ Trouble signal silence switch operates?
- _____ Main Power supply failure trouble signal operates?
- _____ Ground fault tested on positive and negative trouble signal?
- _____ Alert signal operation?
- _____ Alarm signal operation?
- _____ Automatic transfer from alert signal to alarm signal?
- _____ Manual transfer from alert signal to alarm signal?
- _____ Automatic transfer from alert to alarm signal “cancel” feature?
- _____ Acknowledge switch operation?
- _____ Alarm signal silence inhibit?
- _____ Alarm signal manual silence operation?
- _____ Alarm signal silence visual indication?
- _____ Alarm signal silence operates when EVAC system activated?
- _____ Alarm signal when silenced will automatically reinstate on subsequent alarm? In same zone In other zone/circuit
- _____ Alarm signal silence automatic cut-out timer?
- _____ Audible, visual, alert, and alarm signals programmed and operate as per manufacturer’s design and specification?
- _____ Input circuit alarm and supervisory operation including audible and visual indicator?
- _____ Input circuit supervision fault causes a trouble indication?
- _____ Output circuit alarm indicators operate?
- _____ Output circuit supervision fault causes a trouble indication?
- _____ Visual indicator test (lamp test)?
- _____ Coded signal sequence operate not less than the required number of times and the correct alarm signal thereafter.
- _____ Coded signal sequences are not interrupted by subsequent alarms?
- _____ Ancillary circuit by-pass will result in a trouble signal?
- _____ Input circuit to output circuit operation including ancillary device circuits, for correct program operation as per manufacturer’s design and specification (Appendix “C”)?
- _____ Alarm, trouble, & supervisory relays function correctly?
- _____ Relay terminal voltages within manufacturer’s specifications?
- _____ Fire alarm reset function operates?
- _____ Main power to emergency power supply transfer?
- _____ Dead-front panel(s) in place & as per manufacturer’s spec?
- _____ Control unit interconnection to monitoring station?
- _____ Is an AC disconnecting switch installed? YES NO
(ULC CAN4-S524 restricts this, but some AHJ’s will accept it)

C5.4 Control Unit or Transponder Condition Inspection

- _____ Input circuit designations, correctly identified in relation to connected field devices?
- _____ Output circuit designations correctly identified in relation to connected field devices?
- _____ Designations for common control functions & indicators?
- _____ Cabinet, plug-in components and modules securely in place?
- _____ Plug-in cables securely in place?
- _____ Clean and free of dust and dirt?
- _____ Record date, revision and version of Firmware & Software

Date: _____ Rev: _____ Version: _____

- _____ Fuses in accordance with Manufacturer’s specification?
- _____ Control unit lock?
- _____ Termination points from wiring to field devices secure?
- _____ Power & field wiring properly terminated to panel ground lug?
- _____ Panel adequately grounded?
- _____ Dead-front panel(s) in place & as per manufacturer’s spec?

Generator Power Supply

- _____ Provides power to AC circuit serving the fire alarm?
- _____ Trouble condition at the emergency generator shall result in an audible common trouble signal and a visual indication at the required annunciator?

C5.2 Emergency Voice Communication Inspection/Tests

- _____ Power on indicator?
- _____ Common visual trouble signal?
- _____ Common audible trouble signal?
- _____ Trouble signal silence switch?
- _____ All call voice paging including visual indicator?
- _____ Output circuits for selective voice paging and visual indication?
- _____ Output circuits for selective voice paging trouble operation including visual indication operates?
- _____ Microphone including press to talk switch?
- _____ Operation of EVAC system does not interfere with initial inhibit time of alert and/or alarm signal.
- _____ All call voice paging operates on emergency power?
- _____ Failure of one amplifier causes system to automatically transfer to backup amplifier.
- _____ Circuits for emergency telephone call in operation (including audible and visual indication) tested?
- _____ Emergency telephone for operation, including clarity of two way voice communication tested?
- _____ Circuits for emergency telephones trouble operation?
- _____ Emergency telephone call-in lamp?
- _____ Emergency telephone call-in audible signal?
- _____ All telephone zone select switches individually tested?
- _____ Individual telephone zone select indicators?
- _____ Operating instruction clearly visible?
- _____ Lockable release mechanism is intact?
- _____ Over-ride key accessible?

C5.9 Sequential Display Inspection and Testing

- _____ Individual alarm, supervisory and trouble inputs are clearly indicated and separately designated?
(Exception: Operation of each individual alarm and supervisory zone indication lights the identical indicators at the other annunciators and sequential displays.) **See Note 18.**
Specify confirmation method: _____

- _____ Individual alarm and supervisory input designation labels are properly identified?
- _____ Alarm input overrides supervisory and trouble input?
- _____ Supervisory input overrides trouble input?
- _____ Display can be manually advanced?
- _____ First alarm is clearly identified each time it is displayed.
- _____ Alarm and supervisory input is retrievable until system reset?

Other Fixed Extinguishment Systems

- _____ Verify operation of the output contacts initiates the specified function at the FA control unit.

Date: _____	<input type="checkbox"/> Audit <input type="checkbox"/> Verification
Building Name: _____	Address: _____

“√” = Yes - Tested correctly “X” = No - Did not test correctly (NO answers are detailed in “Comments/Remarks”) “NA” = Not applicable

C5.8 Annunciator Inspection & Tests

Location: _____

- _____ Power on indicator?
- _____ Displays are easily visible for responding personnel to view?
- _____ Individual alarm and supervisory zone indication?
- _____ Individual alarm and supervisory zone indication labels?
- _____ Common trouble signal?
- _____ Visual indicator test (lamp test feature)?
- _____ Visual indicator colours comply with Table 3?
- _____ Multi-line sequential display operates as per Appendix C5.9?
- _____ Input wiring from control unit is supervised?
- _____ Alarm signal silence visual indicator?
- _____ Switches for ancillary function operate as intended?
- _____ Other ancillary function visual indicators?
- _____ Manual activation of alarm signal and indication (Drill Test)?

C5.6 Power Supply Inspection

Location: _____

- _____ Conforms to CAN/ULC-S524, Safety Standard for Electrical Installations C22.1 & Canadian Electrical Code Pt. 1 Section 32.
- _____ Fused with manufacturer’s marked rating for the system?
- _____ Equipped with the identified disconnect means.
- _____ Adequate to meet the requirements of the system?
- _____ Dead-front panel(s) in place & as per manufacturer’s spec?
- _____ Ancillary devices powered from a separate source from FAS?
- _____ Ancillary devices powered from designated FAS power supply?
- _____ Mains circuit breaker properly labelled & painted red?

Breaker Location: _____

C5.10 Remote Trouble Unit Tests and Inspection

Location: _____

- _____ Input wiring from control unit is supervised?
- _____ Visual trouble signal?
- _____ Audible trouble signal?
- _____ Audible trouble signal silence?

C5.7 Stand-by Battery Condition Inspection & Testing

Location: _____

Battery type and size (in AH): _____

Battery Voltages

- | | | |
|----------------------------|--|----------|
| AC power on: | | DC Volts |
| AC power off: | | DC Volts |
| AC power off (full alarm): | | DC Volts |

Battery Currents (Amperage)

- | | | |
|----------------------------|--|-------|
| AC power on: | | DC mA |
| AC power off: | | DC mA |
| AC power off (full alarm): | | DC A |

- _____ Correctly sized to provide 24 hours stand-by & 30 or 120 minutes alarm operation in accordance with Code?
- _____ Inspected for physical damage?
- _____ Terminals clean and tight?
- _____ Batteries fused? YES NO (See note 19)
- _____ Correct Electrolyte level?
- _____ Record specific gravity (wet cells): _____
- _____ Electrolyte leaks?
- _____ Adequately ventilated?
- _____ Installation date: _____
- _____ Disconnection causes trouble signal?
- _____ Labeled as “Primary Control Battery” or “Battery #1”?

Battery testing performed:

- _____ (1) Supervisory load for 24 hrs followed by full load operation.
- _____ (2) Silent test using load resistor
- _____ (3) Silent accelerated test

Required battery capacity: _____ AH

C5.8 Annunciator #2 Inspection & Tests

Location: _____

- _____ Power on indicator?
- _____ Displays are visible in the installed location?
- _____ Individual alarm and supervisory zone indication?
- _____ Individual alarm and supervisory zone indication labels?
- _____ Common trouble signal?
- _____ Visual indicator test (lamp test feature)?
- _____ Visual indicator colours comply with Table 3?
- _____ Multi-line sequential display operates as per Appendix C5.9?
- _____ Input wiring from control unit is supervised?
- _____ Alarm signal silence visual indicator?
- _____ Switches for ancillary function operate as intended?
- _____ Other ancillary function visual indicators?
- _____ Manual activation of alarm signal and indication (Drill Test)?

C5.6 Power Supply #2 Inspection

Location: _____

- _____ Conforms to CAN/ULC-S524, Safety Standard for Electrical Installations C22.1 & Canadian Electrical Code Pt. 1 Section 32.
- _____ Fused with manufacturer’s marked rating for the system?
- _____ Equipped with the identified disconnect means.
- _____ Adequate to meet the requirements of the system?
- _____ Dead-front panel(s) in place & as per manufacturer’s spec?
- _____ Ancillary devices powered from a separate source from FAS?
- _____ Ancillary devices powered from designated FAS power supply?
- _____ Mains circuit breaker properly labelled & painted red?

Breaker Location: _____

C5.10 Remote Trouble Unit #2 Tests and Inspection

Location: _____

- _____ Input wiring from control unit is supervised?
- _____ Visual trouble signal?
- _____ Audible trouble signal?
- _____ Audible trouble signal silence?

C5.7 Stand-by Battery #2 Condition Inspection & Testing

Location: _____

Powers: Signal CCT EVAC Aux. Functions

Battery type and size (in AH): _____

Battery Voltages

- | | | |
|----------------------------|--|----------|
| AC power on: | | DC Volts |
| AC power off: | | DC Volts |
| AC power off (full alarm): | | DC Volts |

Battery Currents (Amperage)

- | | | |
|----------------------------|--|-------|
| AC power on: | | DC mA |
| AC power off: | | DC mA |
| AC power off (full alarm): | | DC A |

- _____ Correctly sized to provide 24 hours stand-by & 30 or 120 minutes alarm operation in accordance with Code?
- _____ Inspected for physical damage?
- _____ Terminals clean and tight?
- _____ Batteries fused? YES NO (See note 19)
- _____ Correct Electrolyte level?
- _____ Record specific gravity (wet cells): _____
- _____ Electrolyte leaks?
- _____ Adequately ventilated?
- _____ Installation date: _____
- _____ Disconnection causes trouble signal?
- _____ Labeled as “Battery #2”?

Battery testing performed:

- _____ (1) Supervisory load for 24 hrs followed by full load operation.
- _____ (2) Silent test using load resistor
- _____ (3) Silent accelerated test

Required battery capacity: _____ AH

Date: _____	<input type="checkbox"/> Audit <input type="checkbox"/> Verification
Building Name: _____	Address: _____

“√” = Yes - Tested correctly “X” = No - Did not test correctly (NO answers are detailed in “Comments/Remarks”) “NA” = Not applicable

C5.8 Annunciator #3 Inspection & Tests

Location: _____

- _____ Power on indicator?
- _____ Displays are visible in the installed location?
- _____ Individual alarm and supervisory zone indication?
- _____ Individual alarm and supervisory zone indication labels?
- _____ Common trouble signal?
- _____ Visual indicator test (lamp test feature)?
- _____ Visual indicator colours comply with Table 3?
- _____ Multi-line sequential display operates as per Appendix C5.9?
- _____ Input wiring from control unit is supervised?
- _____ Alarm signal silence visual indicator?
- _____ Switches for ancillary function operate as intended?
- _____ Other ancillary function visual indicators?
- _____ Manual activation of alarm signal and indication (Drill Test)?

C5.6 Power Supply #3 Inspection

Location: _____

- _____ Conforms to CAN/ULC-S524, Safety Standard for Electrical Installations C22.1 & Canadian Electrical Code Pt. 1 Section 32.
- _____ Fused with manufacturer’s marked rating for the system?
- _____ Equipped with the identified disconnect means.
- _____ Adequate to meet the requirements of the system?
- _____ Ancillary devices powered from a separate source from FAS?
- _____ Ancillary devices powered from designated FAS power supply?
- _____ Dead-front panel(s) in place & as per manufacturer’s spec?
- _____ Mains circuit breaker properly labelled & painted red?

Breaker Location: _____

C5.10 Remote Trouble Unit #3 Tests and Inspection

Location: _____

- _____ Input wiring from control unit is supervised?
- _____ Visual trouble signal?
- _____ Audible trouble signal?
- _____ Audible trouble signal silence?

C5.7 Stand-by Battery #3 Condition Inspection & Testing

Location: _____

Powers: Signal CCT EVAC Aux. Functions

Battery type and size (in AH): _____

Battery Voltages

AC power on: _____ DC Volts
 AC power off: _____ DC Volts
 AC power off (full alarm): _____ DC Volts

Battery Currents (Amperage)

AC power on: _____ DC mA
 AC power off: _____ DC mA
 AC power off (full alarm): _____ DC A

- _____ Correctly sized to provide 24 hours stand-by & 30 or 120 minutes alarm operation in accordance with Code?
- _____ Inspected for physical damage?
- _____ Terminals clean and tight?
- _____ Batteries fused? YES NO (See note 19)
- _____ Correct Electrolyte level?
- _____ Record specific gravity (wet cells): _____
- _____ Electrolyte leaks?
- _____ Adequately ventilated?
- _____ Installation date: _____
- _____ Disconnection causes trouble signal?
- _____ Labeled as “Battery #3”?

Battery testing performed:

- _____ (1) Supervisory load for 24 hrs followed by full load operation.
- _____ (2) Silent test using load resistor
- _____ (3) Silent accelerated test

Required battery capacity: _____ AH

C5.8 Annunciator #4 Inspection & Tests

Location: _____

- _____ Power on indicator?
- _____ Displays are visible in the installed location?
- _____ Individual alarm and supervisory zone indication?
- _____ Individual alarm and supervisory zone indication labels?
- _____ Common trouble signal?
- _____ Visual indicator test (lamp test feature)?
- _____ Visual indicator colours comply with Table 3?
- _____ Multi-line sequential display operates as per Appendix C5.9?
- _____ Input wiring from control unit is supervised?
- _____ Alarm signal silence visual indicator?
- _____ Switches for ancillary function operate as intended?
- _____ Other ancillary function visual indicators?
- _____ Manual activation of alarm signal and indication (Drill Test)?

C5.6 Power Supply #4 Inspection

Location: _____

- _____ Conforms to CAN/ULC-S524, Safety Standard for Electrical Installations C22.1 & Canadian Electrical Code Pt. 1 Section 32.
- _____ Fused with manufacturer’s marked rating for the system?
- _____ Equipped with the identified disconnect means.
- _____ Adequate to meet the requirements of the system?
- _____ Ancillary devices powered from a separate source from FAS?
- _____ Ancillary devices powered from designated FAS power supply?
- _____ Dead-front panel(s) in place & as per manufacturer’s spec?
- _____ Mains circuit breaker properly labelled & painted red?

Breaker Location: _____

C5.10 Remote Trouble Unit #4 Tests and Inspection

Location: _____

- _____ Input wiring from control unit is supervised?
- _____ Visual trouble signal?
- _____ Audible trouble signal?
- _____ Audible trouble signal silence?

C5.7 Stand-by Battery #4 Condition Inspection & Testing

Location: _____

Powers: Signal CCT EVAC Aux. Functions

Battery type and size (in AH): _____

Battery Voltages

AC power on: _____ DC Volts
 AC power off: _____ DC Volts
 AC power off (full alarm): _____ DC Volts

Battery Currents (Amperage)

AC power on: _____ DC mA
 AC power off: _____ DC mA
 AC power off (full alarm): _____ DC A

- _____ Correctly sized to provide 24 hours stand-by & 30 or 120 minutes alarm operation in accordance with Code?
- _____ Inspected for physical damage?
- _____ Terminals clean and tight?
- _____ Batteries fused? YES NO (See note 19)
- _____ Correct Electrolyte level?
- _____ Record specific gravity (wet cells): _____
- _____ Electrolyte leaks?
- _____ Adequately ventilated?
- _____ Installation date: _____
- _____ Disconnection causes trouble signal?
- _____ Labeled as “Battery #4”?

Battery testing performed:

- _____ (1) Supervisory load for 24 hrs followed by full load operation.
- _____ (2) Silent test using load resistor
- _____ (3) Silent accelerated test

Required battery capacity: _____ AH

Date:		<input type="checkbox"/> Audit	<input type="checkbox"/> Verification
Building Name:		Address:	

“✓” = Yes - Tested correctly “X” = No - Did not test correctly (NO answers are detailed in “Comments/Remarks”) “NA” = Not applicable

C3 Field Devices & Related Circuits Test & Inspection

- _____ Each device is free of damage, foreign substance & mechanically supported independent of wiring?
- _____ Each device tested while connected to control unit?
- _____ Manual Pull stations tested?
- _____ Two stage pull stations tested and functions confirmed?
- _____ Heat detectors tested to ULC CAN4-S537 (5.3.1, 5.3.2, 5.3.3)

C3 Smoke Detectors & Powered Devices

- _____ Inspected for cleanliness?
- _____ Sensitivity tested (record results in the Device Test Record).
- _____ Tested for Operation?
- _____ Remote indicator units inspected and tested?
- _____ Status change confirmation inspection and tested?
- _____ Air duct smoke detectors tested to ULC 537 5.4.4?
- _____ Beam type smoke detectors for actuation & sensitivity?
- _____ Flame detectors inspected and tested?
- _____ Combination detectors inspected and tested?
- _____ Automatic detectors – other types - inspected & tested for:
 - a) alarm initiation
 - b) correct orientation so as to detect the anticipated hazard
 - c) sensitivity tested (record results in the Device Test Record).

All tested devices are compatible with the control panel.

Exceptions are identified on the Device Test Record.

C4 Data Communication Link (DCL) Test

- _____ Confirm that a trouble signal is generated for “open DCL loop” at the *Common Control Panel* *Transponder*
- _____ Fault Isolation Modules tested for opens/shorts on both device side and “source” side and “fault” and “alarm” conditions are confirmed.
- _____ Correct number of field devices per Isolator Module?
- _____ Alarm and supervisory trouble conditions are received at the common control unit under a single ground fault on each conductor independently.
- _____ DCL operation confirmed between Common Control & Transponders during a “short condition” on other transponders in the loop (where Isolator Modules are used) between:
 - (1) each pair of Control Units
 - (2) Control Unit to Transponder
 - (3) each pair of Transponders

Building Emergency Planning Documentation

- _____ Fire emergency instructions posted and clearly visible?
- _____ List of tenants requiring assistance reviewed and in place?
- _____ The Fire Safety Officer is:

- _____ Alarm signal from both sides of a single open fault condition?
- _____ Alarm signal received during a *general* ground fault condition?
- _____ Is addressable device operation unimpeded by ground fault?

Water Flow Detection devices

- a) Tested by appropriate water flow means
- b) Time delay: _____ Seconds (not to exceed 60)

Supervisory Devices

- _____ Shut-off valves tested and result in trouble signal?
- _____ Low pressure supervisory device inspected and tested?
- _____ Low water supervisory device inspected and tested?
- _____ Low temperature supervisory device tested?
- _____ Each power loss (i.e. fire pump and air compressor) tested?

Supervisory Devices (Other Types)

Inspected and tested as per manufacturer requirements?

Signal Appliances

- _____ Shall be individually inspected and tested for operation, proper installation, supervision, tampering and/or obstruction.
- _____ Intelligibility (clarity) of voice messages confirmed?
- _____ Audibility of alert, alarm and voice messages checked?
- _____ Visual signal appliances individually inspected & tested?
- _____ Combination type appliances individually inspected & tested?

C5.11 Printer Testing

- _____ Operation as intended?
- _____ Zone of each alarm initiating device is correctly printed?
- _____ Rated voltage is present?
- _____ Events and acknowledgements are automatically printed?
- _____ Time and date is recorded by the printer?
- _____ Each event is recorded as they occur?
- _____ System records status changes with loss of data?
- _____ Paper advances automatically such that print record is visible?
- _____ Printer operates under loss of main power supply?
- _____ Printer is monitored for “low paper” and “paper out”?

Smoke Alarms

- _____ Powered by un-switched “AC”?
- _____ Battery operated? Batteries Replaced? YES NO
- _____ Interconnection function tested (multiple station alarms)?
- _____ Audibility of alarm sounder checked?
- _____ Testing method: Canned Smoke Test Button
- _____ Exceptions are identified on the Device Test Record.

C5.12 Ancillary Device Testing (See Note 20)

- _____ Circuit: Corridor Damper(s) (list separately)
- _____ Circuit: Elevator homing Alternate floor homing
- _____ Elevator No. _____ is the designated Fireman’s Elevator.
- _____ Circuit: Front Door Release
- _____ Circuit (other): _____
- _____ Circuit (other): _____
- _____ Circuit (other): _____

- _____ Is all required documentation in place & properly secured?
- _____ Is required monthly testing being done & documented?
- _____ Date of last monthly test: _____

- _____ Circuit: Make-up Air Unit(s) (list separately) Shutdown
- _____ Circuit: Corridor Door Holders (list separately)
- _____ Circuit: Stairwell Pressurization Unit(s) (list separately)
- _____ Circuit: Exhaust Fan Unit(s) Operation (list separately)
- _____ Circuit (other): _____
- _____ Circuit (other): _____
- _____ Circuit (other): _____

Date:		<input type="checkbox"/> Audit	<input checked="" type="checkbox"/> Verification
Building Name:		Address:	

“√” = Yes - Tested correctly “X” = No - Did not test correctly (NO answers are detailed in “Comments/Remarks”) “NA” = Not applicable

C5.5 Large Scale Network Systems

C5.3 Required System Response Times

_____ Verify control units or transponders serve the same area for both input and output circuits.

_____ Verify control units or transponders with stand-alone capability have signal silence, reset, and trouble silence switches with visual indicators.

_____ Verify degraded mode operation and visual indicators.

_____ Verify stand-alone mode operation and visual indicators.

_____ Confirm that between any nodes the following faults result in a trouble signal at each node and that under these conditions, continued receipt of alarm and supervisory signals are able to be processed.

Ground Fault: Yes No

Single Open Circuit Fault: Yes No

Wire-to-wire Short Circuit Fault: Yes No

Test of degraded mode capability in which a data communication failure is simulated, creating two (2) network segments for confirmation of the following operations:

_____ i. Operate alarm signals in accordance with the system operation sequence;

_____ ii. Maintain synchronization of alert and alarm signals;

_____ iii. Operate local relays in control units or transponders connected to ancillary devices, as required;

_____ iv. Confirm operation of:

Acknowledge Switch: Yes No NA

Reset Function Switch: Yes No NA

Signal Silence Switch: Yes No NA

Trouble Silence Switch Yes No NA

_____ All visual and audible indicators function locally?

_____ Audible and visual signal appliances operate within ten (10) seconds?

_____ Subsequent input operated within ten (10) seconds?

_____ Remote connection operated within ten (10) seconds?

_____ Releasing device start of sequence operated within ten (10) seconds?

_____ Required annunciation operated within ten (10) seconds?

_____ Subsequent input operated within ten (10) seconds?

_____ Required central alarm and control facility output operated within ten (10) seconds?

_____ Subsequent input operated within ten (10) seconds?

_____ Ancillary circuits operated within ten (10) seconds?

_____ Subsequent input operated within ten (10) seconds?

C3 General Electrical Survey and Condition Inspection

_____ Field device at the electrically furthest point from the power source (in every circuit) receives rated power in accordance with manufacturer’s specifications.

_____ Replaceable over-current devices are of the correct rating.

_____ Wire type and gauge in accordance with equipment manufacturer’s installation wiring at all system terminations.

_____ Correct circuit polarities.

_____ Open circuit fault on a conventional device circuit causes a trouble signal at the common control.

_____ Class “A” circuits serving conventional field devices were tested for the capability of providing an alarm signal on each side of an open circuit fault condition at a point electrically remote from the common control.

ADDITIONAL NOTES:

4. Smoke detector sensitivity measurement should be recorded in the “Remarks” column of the Individual Device Test Record. Analog smoke detectors may report their obscuration level (sensitivity) to the fire alarm’s common control. This information should be retrieved and recorded in the “Remarks” column.
5. Status change, including time delay (where applicable), should be recorded in the “Remarks” column.
6. Duct smoke detector pressure differential should be confirmed and recorded in the “Remarks” column. Detector tubes must be pulled and their alignment confirmed. Record any discrepancies in the “Remarks” column.
7. Time delay setting of water flow switch should be recorded in the “Remarks” column.
8. Sprinkler supervisory switches should cause a “trouble” condition to be annunciated. This should be a latching type trouble (or “supervisory trouble”) only restorable by pressing “Reset” on the fire alarm control panel. Exceptions must be noted in “Comments”.
9. Upper and lower pressure setting of supervisory devices should be recorded in the “Remarks” column.
10. Low temperature setting should be recorded in the “Remarks” column.
11. Identify the specific ancillary devices in the “Remarks” column.
12. Where possible, identify the date a fire detector is changed. If housing discoloration is noted, attempt to identify the source and note the date of manufacture. Heat detectors whose labels are missing, faded and unreadable, or painted are considered failed and require replacement. This information should be noted in the “Remarks” column.
13. Identify type and function of each addressable device in the “Remarks” column.
14. Charging currents in excess of 100 mA will significantly shorten the service life of Ni-Cad and sealed lead acid batteries.
15. Relays tied to listed fire alarm equipment initiating/supervisory circuits must be properly supervised. Note exceptions in “Comments”.
16. The system’s documentation should provide information concerning the number of addressable devices that are connected to each isolator. Ensure this number does not exceed the Manufacturer’s requirements. Any exceptions should be noted in “Comments”.
17. The building owner/manager must maintain the records for the Verification on site for inspection by the local authority.
18. Operation of each annunciator or sequential display must be confirmed visually.
19. Stand-by batteries that are remotely located more than twelve (12) meters from the Fire Alarm Common Control must be fused (or installed in accordance with the manufacturer’s recommendations or requirements).
20. The tests reported on this form may not include actual operation of attached ancillary devices. Please see “Remarks/Comments” section on the last page of this report.

Any exceptions to the above are noted in the “Remarks/Comments” area on the last page of this report.

Device Testing – Legend, Notes, and Comments

Date:		<input type="checkbox"/> Audit <input type="checkbox"/> Verification
Building Name:		Address:

Device	Description	Type	Model No.
M	Manual Pull station		
HD	Heat detector, restorable or non restorable, fixed temperature (12)		
RHD	Heat detector, restorable, rate-of-rise thermostat (12)		
S	Ionization type system smoke detector (4)		
PS	Photo-electric type system smoke detector (4)		
DS	Duct smoke detector (4, 5, 6)		
FS	Sprinkler flow switch (7)		
FPS	Sprinkler flow pressure switch (7)		
TS	Sprinkler valve supervisory tamper switch (8)		
LA	Low Air supervisory device (9)		
LT	Low Temperature supervisory device (10)		
EOL(R)	End-of-Line Resistor (“EOLR” indicates “Power Supervision Relay”)		
SA	Smoke alarm (single or multi-station type)		
B	Bell		
H	Horn		
V	Visual alarm device (strobe, corridor indicator)		
BZ(S)	Mini Buzzer (a “BZS” indicates “silenceable” type)		
SP	Cone type speaker		
HSP	Horn type speaker		
ET	Emergency Telephone		
AV	Combination Audible/Visual Device (i.e. Horn/Strobe Unit)		
OD	Other Type of Detector		
DM	Damper Motor		
R	Relay		
RPM	Remote Point Module (13)		
SRIM	Single Point Remote Initiating Module		
DRIM	Dual Input Remote Initiating Module		
SCIM	Signal Circuit Isolation Module		
RPIM	Remote Point Isolator Module (16)		
SCRM	Signal Circuit Remote Module		
RRM	Remote Relay Module		
AD	Other Ancillary Device (11)		
HTC(R)	Heat Trace Controller (or relay type)		

Remarks/Comments