



## ***Demonstration of Coordinated Fire & Life Safety Systems***

This bulletin is issued to professional designers regarding their responsibility in the coordination of design, testing, and functional operation of fire and life safety systems in complex buildings as outlined in Appendix "A" of Division C, Article A-2.2.7.3. of the B.C. Building Code. (see excerpt over) Two areas are of special importance to the authority having jurisdiction (AHJ): the creation of a system test protocol and demonstration/witnessing protocol during the design phase, and the need for a minimum of three test demonstrations of fire and life safety systems (contractor, consultant, and AHJ) at the completion stage for each project.

The coordinating registered professional (CRP) is responsible for:

1. The development of a "project-specific test protocol and demonstration procedure in consultation with the registered professionals (RP's)" during the design phase.
2. The distribution of the test protocol and functional test procedures prior to the fire and life safety demonstration stage.
3. Organizing the "Coordinated Final Consultant Review" of the functional test of the coordinated fire and life safety systems at least one week prior to the AHJ final review.
4. Organizing and conducting the "Coordinated AHJ Final Review" demonstration/witness of the coordinated fire and life safety systems only after all deficiencies have been corrected and all life safety systems are fully ready.

It is required that the AHJ demonstration/witness procedure be arranged to make the most efficient use of City staff resources by being ready and by having the test procedures that involve all disciplines scheduled to be conducted first, while those that only involve one or two disciplines scheduled for last. Also, the construction site must be ready for the disruption of the demonstration/testing (basically shut down).

### **Scheduling of Coordinated Inspection**

1. Request for a coordinated inspection must be made minimum 5 working days in advance of the date.
2. Final paperwork including test protocol must be received at least 48 hours prior to scheduled inspection.

## 4.0. Sample Occupancy Demonstration/Witnessing Flowchart (Appendix "A", Division C, Article A-2.2.7.3 – 2006 BCBC)

### **DEVELOP TESTING PROTOCOL/PROCEDURE (Design Phase)**

CRP/RPs develop Testing Demonstration/Witness Protocol  
— Issue to Authorities Having Jurisdiction & Contractor



### **DOCUMENTATION SUBMISSION**

Contractor/Sub-trades submit/deliver all appropriate documentation to CRP/RPs, including:

- The original Contractor's Materials and Test Certificate for the sprinkler system
- Fire Pump Flow Test Certificate(s)
- Back Flow Prevention Certificate(s)
- Emergency generator commissioning and verification reports
- The original Certificate of Verification for the fire alarm system
- Appendix "A" to the fire alarm verification report
- ULC Certificate for Protective Signaling Service
- Other documentation, as appropriate



### **CONTRACTOR DEMONSTRATION — CONSTRUCTION COMPLETE**

Contractor & Sub-trades  
(Mechanical, Electrical, Elevator, Sprinkler, Fire Alarm, etc.) as appropriate



### **COORDINATED FINAL CONSULTANT REVIEW DEMONSTRATION/WITNESSING**

CRP/RPs  
(Architect, Mechanical Engineer, Electrical Engineer, Sprinkler Engineer,  
Equivalency Consultant, etc.) as appropriate



### **OCCUPANCY SUBMISSION DOCUMENTS**

CRP to collect all submission documents, including Schedule Cs from RPs,  
and submit to AHJ in a complete package



### **COORDINATED FINAL AHJ REVIEW DEMONSTRATION/WITNESS**

Contractor, Sub-trades, CRP/RPs demonstrate to AHJ  
(Building, Fire, Mechanical, Electrical and Sprinkler)



### **OCCUPANCY**