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## **Effectiveness of Manually Applied Compressed-Air-Foam (CAF) Fire Extinction Systems**

### **Objectives**

To evaluate the effectiveness of a mobile CAF fire extinction system in suppressing compartment fires and compare the results to those from a water stream system.

### **Background**

CAF systems produce better quality foam with greater force than traditional air-aspirated foam systems. Mobile CAF systems are now being produced, but no study has yet been done to show their effectiveness.

### **Statement of Work**

A model office consisting of two rooms will be built at the NRC-IRC facilities in Almonte, Ontario. A fire will be started in a waste basket beside an upholstered chair in one room and will be allowed to reach 2 megawatts before being extinguished with a mobile CAF system, a hose stream application with water alone, or a hose stream application with water and Class A foam concentrate. During each test, heat, smoke and fire gas concentrations in the fire room and the adjacent room will be measured.

### **Expected Outcomes**

A test report will be delivered to the clients.

### **Partners**

Ministère de la Sécurité du Québec, Service de sécurité incendie du Montréal and Kidde Canada Inc.

### **Start/Expected Completion Dates**

This project began in June 2007 and will be completed in December 2008.

### **Project Manager**

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For more information, see [http://irc.nrc-cnrc.gc.ca/fr/pfdss/manualcaf\\_e.html](http://irc.nrc-cnrc.gc.ca/fr/pfdss/manualcaf_e.html)

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