

**21 00 00 Fire Suppression:**

1. Queen's University has a sole source partnership agreement with Siemens Building Technologies Cerberus Division for the supply of all fire alarm equipment. Designers should contact Siemens in order to obtain assistance in producing a design optimized for Siemens equipment.
2. Fire alarm systems will conform to all applicable codes and standards.
3. Addressable fire alarm systems will be provided in buildings exceeding three stories in height above ground or exceeding 5000 m<sup>2</sup> in gross area. Conventional systems may be used in smaller buildings.
4. Addressable fire alarm systems shall be installed as two-stage systems with the general alarm delay set to zero. Full two-stage operation will be implemented at the university's discretion. Conventional systems shall be single stage, non-coded.
5. Control panels shall be easily accessible with the annunciator portion visible to the fire department personnel at the main entrance and located to the satisfaction of all fire departments concerned.
6. Fire alarm systems are monitored centrally by both Fire Monitoring of Canada (FMC) and Queen's Emergency Report Centre (ERC). Separate, normally closed contacts shall be provided in the control panel to provide trouble, supervisory and alarm signals to FMC, and trouble, supervisory, and alarm signals to the ERC. Conduit is required from the interface box to an ITS Comms Room - coordinate with Facilities. FMC requires both Ethernet and telephone connections. ERC requires a hardwired connection to the nearest Queen's security panel. System commissioning requires that both central monitoring stations be operational before acceptance testing commences.
7. System verification is to be provided by Siemens Building Technologies, Cerberus Division.
8. Portable Fire Extinguishers
  - a. Fire extinguishers will be provided in accordance with Underwriters/Kingston Fire Department recommendations.
  - b. Water extinguishers shall be CO<sub>2</sub> cartridge pressurized.
  - c. CO<sub>2</sub> extinguishers shall be similar to the Kidde type with renewable valve seat.
  - d. Dry powder extinguishers shall be Underwriters approved.
  - e. Suitable directional signs shall be placed to indicate locations of all extinguisher cabinets so that locations are obvious when approached from any direction.
9. Sprinkler and Fire System Piping
  - a. If sprinklers are to be installed, they shall be designed to NFPA 13.
  - b. For pipe sizes 6" and smaller sprinkler and fire system piping should have rolled groove connections and should use either schedule 10 steel pipe or "Allied XL" steel pipe.
  - c. Main drain to be piped to the outdoors.
  - d. No mechanical services are to run through electrical rooms unless specifically serving the electrical room.