

COMPUTER ROOM

The computer room setting assumes an environmentally controlled, stable, smoke-free environment where very early warning is desired. It is anticipated that RF and EMI are potential deceptive inputs. Computer rooms usually are relatively clean with a higher than normal air flow rate. Any clean, climate controlled equipment room where a higher degree of protection is required will use this application.

HEALTH CARE

This setting is designed for a clean environment where possible fumes, radio frequency and electromechanical interference are present. This setting is applicable to hospitals, nursing homes, etc. The offices and lobby settings will be also used in these facilities, where applicable.

UTILITY/TRANSFORMER ROOM

This setting assumes equipment protection without the environmental controls and cleanliness that apply to computer rooms and health care. These rooms normally are warmer than other areas with a higher level of EMI. Equipment storage, transformer rooms and telephone closets are all candidates for this setting.

PRECIOUS STORAGE

This is a high sensitivity setting where very early warning is desired and the environment is well controlled. Although similar to the computer room, it would not include high RFI or EMI levels or frequent air exchanges.

This application is used for storage of important document and for libraries and museums.

DUCT

This setting is used for air duct housing applications in HVAC systems. It is also used for detectors installed in the high security detector guards.

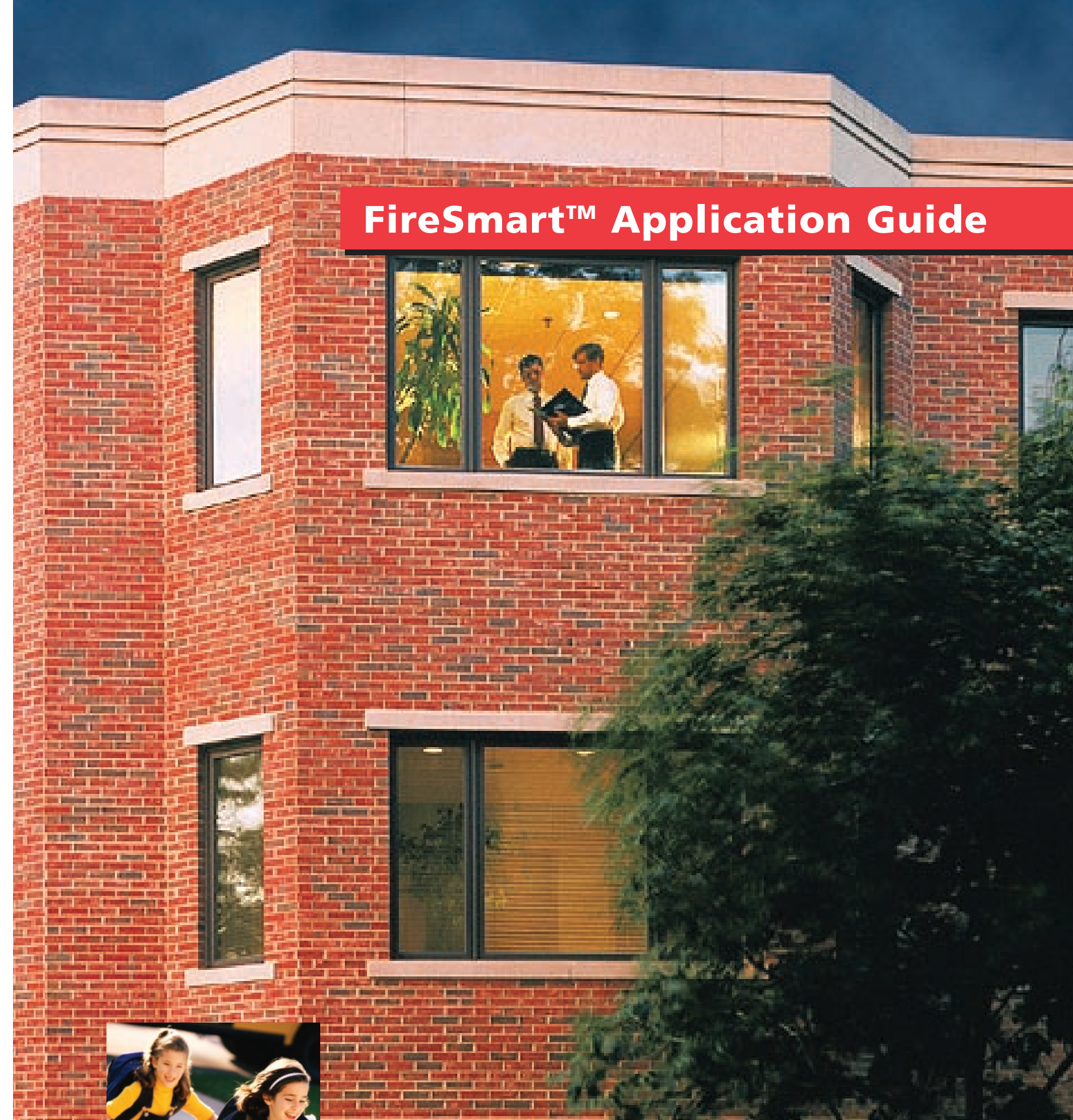
CONCLUSION

This information is provided as a guide to selecting the best application for a particular installation. Good fire engineering judgment and common sense dictate how and when fire detectors are installed and used. Contact the Applications Department whenever you need assistance applying FireSmart™ in unusual applications. Finally, be sure to follow NFPA guidelines in all applications and follow the UL approved installation instructions that accompany all fire protection equipment.

We believe that the FireSmart™ detection system provides the world's best combination of early warning and false alarm resistance. Anything else is just a compromise!



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FireSmart™ Application Guide

*Faster detection means better protection
for buildings and the people in them.*



FireSmart™ Fire Detector

The FireSmart™ Fire Detector is the most intelligent and sophisticated fire detection device available. It incorporates complex mathematical formulas and logic to determine the difference between a real fire threat in its early stages and deceptive phenomena that fool most detection systems. All of this decision making power is built into every FireSmart™ detector, leaving the panel free to efficiently perform all other system tasks.

Anyone can build a more sensitive detector; but the challenge is to properly balance the scales between early warning and false alarm immunity. The FireSmart™ detector uses its extensive fire test derived intelligence to evaluate environmental conditions and is able to discriminate between a real fire and the sometimes similar input from cigarette smoke, dust, welding, or other deceptive conditions.

With data collected from over 25 years of testing we have identified numerous unique fire profiles. Similar to technologies used by the military in identifying submarines, ships and aircraft, profiling is a proven method of determining friend from foe, a fire hazard from normal conditions. Our studies also incorporated normal ambient temperature changes and detector responses to conditions in various types of buildings to help determine normal from dangerous environments.

Sophisticated technology like this must be easy to use in practice. To satisfy this need we have developed a series of application profiles, which include virtually every detector environment. To optimize a FireSmart™ detector's response, a system installer or operator needs to simply tell the MPC-6000/7000 what type of occupancy each FireSmart™ detector protects. The MPC-6000/7000 then turns on the correct application parameters in each detector. This detector programming can be changed from the MPC-6000/7000 control panel any time a detector's environment changes.

The purpose of this application guide is to provide guidelines for selecting the best fire profile when installing an MPC-6000/7000 system with FireSmart™ detectors.

THE APPLICATIONS

The FireSmart™ detector allows you to stretch the environmental envelope for successful detector installation. This guide will assist you in determining the proper placement of FireSmart™ detection devices.

There are 11 (eleven) application profiles available in the MPC-6000/7000, which can be selectively enabled in FireSmart™ detectors. Although there are an infinite number of "real-world" applications this grouping covers virtually all environments normally protected by a fire detector. These applications are:

- Office/Retail
- Lobby
- Dormitory
- Parking Garage
- Hostile Environment
- Warehouse/ Light Manufacturing
- Computer Room
- Health care
- Utility/Transformer Room
- Precious Storage
- Duct

OFFICE/RETAIL

This is the most commonly used application. It sets the detector for immunity to deceptive phenomena caused by dust, fumes, cigarette smoke, electronic equipment, etc. This is considered the standard application setting.

LOBBY

The lobby setting assumes a slightly harsher atmosphere than the office/retail application. This is an atmosphere where there may be more cellular phone use, more concentrated cigarette smoke, possible quick changes in temperature and possible bursts of dusty or dirty air. This application is used for an elevator lobby, waiting room, or lobby area at an entrance to the building.

DORMITORY

This setting provides nuisance alarm immunity in an area used as a living area and/or for light cooking. It can be used in a dormitory or apartment, or where microwave ovens, toasters or coffee pots may be in use. This setting is also appropriate for office kitchen areas. It is NOT to be used for restaurant kitchens.

PARKING GARAGE

This setting is one of the FireSmart™ harsh environment applications that are used for enclosed parking areas or automobile storage or maintenance areas. This is a setting with deceptive phenomena filters maximized to prevent unwanted alarms from automobile exhaust and diesel fumes from passing vehicles or dust and temperature changes associated with areas of this type.

Placement of detectors in parking areas must still include prudent fire engineering practices such as NOT installing detectors in areas where vehicles start-up and idle for extended periods, and following the normal environmental and temperature limitations of the equipment being installed. In areas with prolonged diesel exhaust, proper ventilation and alternate detection methods may be the best choice. This application is for enclosed parking areas or those that do not expose the detectors and devices to freezing temperatures.

HOSTILE ENVIRONMENT

This is the "catch-all" harsh environment setting for numerous installations that were previously considered "fringe" applications for smoke detectors. These applications include dirty, dusty areas, harsh RF and EMI environments, and any areas not covered by one of the other applications where placement of detectors is normally questioned.

It should be noted that prudent fire engineering judgment and common sense must be applied to locations using this application. The Applications Department should be contacted if smoke, heat, RFI or other environmental conditions consistently occur in a hostile detector application.

WAREHOUSE / LIGHT MANUFACTURING

This is a normal sensitivity setting application where it is anticipated that there will be above average amounts of deceptive phenomena caused by lift truck exhaust, light fumes from manufacturing processes, dust, breezes, and temperature changes caused by opening roll-up doors.