

**Guidance
Note**



Fire Industry Association



**Interface between fire fighting systems
and other systems in commercial kitchens**

INTRODUCTION/BACKGROUND

Suppliers of catering equipment are often required to provide fire protection systems and regularly have problems in ensuring that connections are made between the controls of the fire protection system and other systems, such as fire alarms, building management systems, kitchen extract fans and fuel supplies (which often need to be shut down in the event of a fire).

There is a concern that the suppliers of other systems are reluctant to make the connections for several possible reasons:

- Fear of setting off the fire protection system.
- Fear or reluctance to work in another contractor's control box.
- Timing – as often one or other contractor is not on site when the another is installing and wiring their system.
- Poor communication, resulting in a lack of understanding of the relevance and importance of inter-connections between systems.

SCOPE

To provide guidance to cover the interface between fire protection systems in commercial catering operations and other systems (ie fire alarm systems, gas interlock systems, building management systems etc). This guidance enables manufacturers and installers of fire protection systems, suppliers of catering equipment, other contractors, and the end user, as well as other interested parties such as insurers, to understand the need for interfaces with other systems to be made, and for the consideration of other fire-fighting measures such as portable extinguishers.

DEFINITIONS

Fire protection system

A fixed system which automatically detects and extinguishes or suppresses a fire.

Automatic fire detection and fire alarm system

A system (other than a single self-contained smoke or fire alarm) in which an alarm of fire can be initiated automatically.

Gas interlock systems

A system to prevent the use of catering equipment without adequate ventilation and which operates by shutting off the gas supply.

Service

All measures required to keep the system operational and to identify the system's condition.

TYPE OF SYSTEMS

Manufacturers of fire protection systems should provide a minimum of four no volt connections to operate whenever the fire protection system is activated. The purpose of these connections is to operate the control circuits of other systems (ie automatic fire detection and fire alarm systems, gas interlock systems, building management systems etc).

- The manufacturer should provide written guidance (location, access, function, testing procedure, etc) regarding the provision of these connections. These should be easily accessible to the person making a connection to them (ie provide access holes for conduit or cable glands in a suitable position on the control box of their system).

- The connections should be provided with a test facility, to enable the person making the connections to the control circuit of other systems to test their connections.
- Installers of systems such as automatic fire detection and fire alarm, BMS interfaces etc, that require to be connected to the fire protection system, must undertake and accept responsibility for making and testing the electrical connections to the no volt connections provided by the supplier of the fire protection system.

SHUT DOWN FUNCTIONS

The energy supply for the kitchen equipment must be switched off automatically upon activation of the fire protection systems. The fire protection system's manufacturer/installer shall provide a means, such as volt free contacts, for this purpose.

STANDARDS

EN 3 – Portable fire extinguishers.

EN 54 – Fire detection and fire alarm systems.

EN 16282 Part 7 – Equipment for commercial kitchens – Components for ventilation in commercial kitchens Part 7: Installation and use of fixed fire suppression systems.

BS 5306-3 – Fire extinguishing systems and equipment on premises – Part 3 commissioning and maintenance of portable fire extinguishers.

BS 5839 1 – Fire detection and fire alarm systems for buildings – Part 1: Code of practice for design, installation, commissioning and maintenance of systems in non-domestic premises.

TESTING

Upon completion of the installation, the other system should be tested by the supplier, to ensure that the necessary interfaces between the fire protection system and other systems work as intended, and provide written confirmation of the test results. These tests should include, but not be limited to:

- a) Confirmation that connections between the fire protection system and the interlocks for the gas and/or electricity supplies to the catering appliances are in place, and operate as intended.
- b) Confirmation that the connection between the fire protection system and the building fire alarm system is in place, and operates as intended.
- c) Confirmation that the connection between the fire protection system and the building management system is in place, and operates as intended.
- d) Confirmation that manual controls for the fire protection system and portable extinguishers are located away from potential hazards, and are easily accessible in the event of a fire.

SERVICE AND MAINTENANCE

Fire protection systems should be inspected, serviced and maintained at regular intervals in accordance with the manufacturer's instructions, to ensure they will carry out their intended function. Service and maintenance should be carried out by the manufacturer or by personnel trained and approved by the manufacturer. A design check should be carried out during every service.

Portable extinguishers should be inspected, serviced and maintained at regular intervals by competent technicians, in accordance with the manufacturer's instructions and the recommendations of BS 5306-3, to ensure they will carry out their intended function.

DISCLAIMER

The information set out in this document is believed to be correct in the light of information currently available but it is not guaranteed and neither the Fire Industry Association nor its officers can accept any responsibility in respect of the contents or any events arising from use of the information contained within this document.



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