Built Environment Section Fact Sheet

Managing Unwanted False Alarms – MFS Monitored Alarms

Adelaide Station
99 Wakefield Street
Adelaide SA 5000

Enquiries 8204 3611
samfscommunitysafety@sa.gov.au
www.mfs.sa.gov.au

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METROPOLITAN FIRE SERVICE SOUTH AUSTRALIA
JAN 2022

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MANAGING MALICIOUS CALLS AND MANUAL CALL POINTS (MCP)

Unwanted alarm activations often occur where persons purposely set off an automatic fire alarm system, generally by operating a MCP.

There is a difficult balance involved in making it hard for vandals to activate the system, while still making it easily activated during an actual emergency.

Solutions to address malicious activations may include:

- Establish if the building is required to have MCP's installed in "high risk" locations?
- Conduct frequent security patrols to prevent vandalism.
- Place security cameras at MCP locations.
- Locate MCP's in highly visible locations where offenders will feel vulnerable.
- Administer fines and penalties for offenders who maliciously cause unwanted alarm activations.
- Place correct informative signage near alarm.
- Keep the alarm clear from obstructions.
- Frequently check that the glass is intact
- Put covers on MCP's to avoid accidental activation by bumping or weather
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Modification of your fire alarm system **should not** be undertaken without prior approval of the South Australian Metropolitan Fire Service (MFS).

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MANAGING SYSTEM FAULTS – ALARMS

In all buildings with an automatic fire alarm system there is a need for a structured fire alarm system maintenance schedule to ensure optimum functionality, in line with Australian Standard 1851

Only properly accredited maintenance contractors should be employed to maintain your fire alarm system.

Fire alarm systems need to be cleaned, maintained and tested on a regular basis.

Alarm Maintenance and System Fault Recommendations

- Be clear with fire alarm system contractors about the standard of service to be delivered.
- Make an agreement with the maintenance technician as to when the technician is to be called following alarm activation.
- Ask the technician to show you exactly what maintenance needs to be done.
- Keep a logbook of all maintenance and changes to alarm systems.
- Take an interest in ensuring fastidious attention to detail occurs with the introduction of a planned maintenance schedule.
- Ensure maintenance is kept up to a contracted standard, including extended fire alarm maintenance periods to ensure full compliance with Australian Standard 1851.6 and Australian Standard 1851.8.
- Provide advice to tenants at start of occupation, about optimum management of fire alarm systems.
- Before becoming the owner/occupier/manager of a building fitted with an automatic fire alarm system establish that the fire alarm system is up to standard.
- Conduct regular staff training in how to use the automatic fire alarm system.
- Ensure staff and contractors that maintain fire alarm systems have the appropriate accreditation.
- Fire alarm device/isolation procedures should be discussed and signed with workers/contractors and possibly the fire service.
- Regular tests must be carried out on all detectors (Australian Standard 1851). The initial commissioning of a system must include a satisfactory test of all detectors.
- Electrical conduits and detector bases should be sealed against insect infestation.
- Ensure regular housekeeping is maintained to avoid dust build-up and to ensure doors are not wedged open to allow dust and insects to enter.
- Ensure smoke and fire doors are functioning correctly.
- Ensure self-closing doors do actually close.

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MANAGING SYSTEM FAULTS – SPRINKLERS

Managing system faults and alarm maintenance

Unwanted alarm activations through a sprinkler system can occur for a variety of reasons such as:

- faulty or malfunctioning sprinkler equipment
- a leaking system or water system surge
- poor work practices
- a rise in mains pressure or a fall in installation pressure due to leaks.

Solutions

- Location and activating temperature of sprinkler heads should be considered.
- Regular maintenance, servicing and testing of sprinklers.
- Education of employees on where the sprinkler heads are located and how they work.
- The installation of overhead barriers at car park access ways if vehicles are knocking sprinkler heads off.
- Pressurise and monitor both town mains and tank fed systems.
- Identify your system pressure, then check and record it daily - if any drop is evident then contact your maintenance company immediately.
- Discuss with your maintenance company and insurance company the alternative devices used to monitor your sprinkler system for generating fire calls e.g. flow switches or pressure switches.
- Your maintenance company can also recommend other devices that might be installed to reduce the incidence of unwanted alarm activations, e.g. automatic jacking pumps and protection barriers for sprinkler heads.

BUILDING DESIGN PROBLEMS

Building design is frequently found to be the cause for unwanted alarm activations due to:

- Incorrect fire alarm systems being installed for the design of the building with detectors located too close to problematic environmental factors such as showers, ventilation, cooking facilities, industrial work areas etc. Australian Standards for fire alarm installation require that the system be designed and installed to suit the purpose of the building.

Building Design Solutions

- Ensure that the installed fire alarm system is compatible with the building and the environment.
- Check with fire system contractor that detectors are in correct positions.
- Consider if it possible to replace smoke detectors with a more suitable type.
- Consult with building surveyor over any plans for change to the alarm system or detector positioning.
- Review the capacity to remove or relocate potential alarm initiators such as toasters and cooking devices.
- Check to see if the floor plan layout has changed since the fire alarm system was originally installed.
- When current fire alarm systems reach the end of their life, ensure the fire alarm system and alarm panel are upgraded to optimum standards.
- Upgrade buildings that prevent water penetration due to poor internal and external plumbing design.
- Upgrade building design and layout where inadequate ventilation management exists e.g. no door head from bathrooms, or ventilation draws cooking fumes from kitchen areas past smoke detectors.

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MANAGING BUILDING MAINTENANCE

In all buildings with an automatic fire alarm system there is a need for a structured fire alarm system maintenance schedule to ensure optimum functionality, in line with Australian Standard 1851.

Ministerial Building Standard (MBS) 002 Maintaining the Performance of Essential Safety Provisions, this MBS applies to any Essential Safety Provision (ESP) required to be installed in a building.

Workers and contractors can unintentionally set off automatic fire alarm systems by conducting work such as welding and using heating appliances, mowing and landscaping, and cleaning (steam and air blowers) and pest fumigation etc.

Check that all tradespersons who enter the building are conversant with (and have preferably signed) the building trade work policy.

Workers must all ensure they;

- have hot work permits
- cover detectors that could be affected by heat / smoke / dust
- isolate zones/detectors that could be affected by heat / smoke / dust;
- are aware of their liability
- have permission to access/work in the building.
- Ensure building management are aware of any isolations / covered detectors, and that systems are returned to “normal” at completion of works.

Strategies

- Brief workers, contractors, and maintenance staff on how to work in the building with alarms and how the alarms work.
- Introduce work permits that detail strict alarm isolation procedure to be adopted before any work is carried out on the premises.
- Explain why and how the fire alarm detectors have to be isolated before starting work.
- It may become necessary to cover detectors to avoid particles building up in the detector but note it is an unacceptable practice to cover them with plastic bags.
- Nominate a person as a safety watch while the fire alarm zone is isolated.
- Explain Essential Safety Provisions (ESP) purpose to all contractors.
- Explain the role of the MFS Fire Communication Centre.
- Explain the consequences of what will happen if an unwanted alarm activation occurs and what your business policy is for payment of a chargeable alarm.
- Establish who is responsible for reinstating the alarm system upon the completion of work.
- Make sure particular care is taken over the use of grinders and gas equipment as gases may drift to other non-isolated zones in the area - this could involve installing automatic closing doors for use in confined areas.
- Ensure workers or contractors do not cut any fire alarm cabling.

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MODIFY THE ALARM SYSTEM

There are many possible solutions for minimising unwanted alarms. Modifying the system is the least favoured option however it may be the only solution in some cases. The MFS may be able to assist you and your fire alarm company by approving some modifications. Some modifications may also require the lodgement of a building application with a building certifier and an alarm alteration request with the MFS

Possibilities may include:

- relocating detectors
- changing types of detectors
- upgrading to intelligent type of detector if the fire alarm panel can support this
- removal of detectors where they are outside of the National Construction Code requirements
- change MCP's to local alarm only
- remove MCP's entirely
- activate/install Alarm Verification Facility (AVF), Alarm Delay Facility (ADF or Alarm Acknowledgement Facility (AAF) if the fire alarm panel can support this (check with MFS Community Safety and Resilience Department)
- disconnect from MFS alarm monitoring service if allowed under the National Construction Code of Australia and insurance requirements (must be approved by relevant authority).

It should be noted that no modification of your fire alarm system should be undertaken without prior approval of the MFS.

ADDITIONAL RESPONSIBILITIES

Pass on all information relevant about the fire alarm system to any caretaker manager or new owner/occupiers.

- Ensure connection contracts are transferred with sale of premises (both MFS and TELSTRA)
- Know how to read the fire alarm display.
- Know the relationship between the fire alarm zones, the mimic board/drawing and the building layout.
- Check that the mimic board is accurate and correctly orientated.
- Know how the fire alarm system functions.
- Know how to use the Public Address (PA), Early Warning System (EWS), Early Warning and Intercommunication System (EWIS) if fitted.
- Know the procedure to carry out when an alarm activates.

Check that all residents/occupiers know:

- the fire evacuation procedures
- the assembly area's
- what to do when the alarm activates
- their responsibilities when workers come to do work in their room/area
- how to live with the fire alarm system.

What should you do when the fire alarm activates? The most important thing to remember is that **life always takes precedence over material loss.**

The MFS is on the way and if you don't have time to check the zone/area then:

- keep everyone calm
- evacuate as per the building fire evacuation plan
- assemble in the appropriate location
- meet the MFS on arrival and let them know what you've done so far.

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CHECKLIST

Always liaise with your fire alarm maintenance contractor.

Ensure regular maintenance and testing of your fire alarm system.

If planning any building alteration or major works, seek advice from your fire alarm contractor before commencing work.

Consider the following during building or maintenance work:

- Does the work produce dust or fumes in or near an alarm-protected area?
- Will activities involve penetrating or demolishing a wall or ceiling?
- Will welding, gas cutting, use of heat guns, sanding or grinding be carried out?

During building or maintenance work ensure that:

- smoke detectors are covered if work processes are likely to create unwanted alarm activations e.g. painting or dusting
- where smoke detectors are fitted, equipment that emits dust or fumes, e.g. grinding machinery or exhaust fumes are run inside
- smoke detectors are not fitted where smoke or steam is present inside buildings e.g. near toasters, kitchens or showers.
- maintenance workers or other contractors do not cut fire alarm cabling.
- Ensure system is returned to normal after any building works or modifications.

Frequently check that manual call points have intact glass covers. Fit alarm covers or relocate manual call points to more visible locations where malicious calls have been a problem.

Inform guests or visitors to your building of ways to prevent unwanted alarm activations.

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