



Risk assessment and method statement

Fire alarm installation RAMS

Fire alarm installation, alteration and commissioning. Pre-filled with typical hazards, controls and sequence: edit it for this site.

PROJECT

SITE ADDRESS			
ACTIVITY		RAMS REFERENCE	
Fire alarm installation, alteration and commissioning			
CONTRACTOR CARRYING OUT THE WORK		PRINCIPAL CONTRACTOR	
PREPARED BY	APPROVED BY	REVISION	DATE

Revision record

Reissue and rebrief when the sequence, the programme, the team or the conditions change. If you would have written it differently had you known, it needs a new revision.

REV	DATE	WHAT CHANGED	BY

THE WORK

The activity, the place and the people

Pre-filled for this kind of work. Make every line specific to this site: this sequence, this access, these people, this weather.

Scope of the activity

What is being done, and what is not included.

MHSWR REGULATION 3(1)

Installation of [a new fire detection and alarm system or an extension to the existing system] at [address] to the design [ref], including containment, cabling, devices, panel, interfaces, fire stopping of our penetrations, commissioning and handover. Mains connection by [electrician]. Not included: [list any exclusions].

Location and access

Where on site, how people and materials get there, and the restrictions.

Site access via [entrance], agreed with [responsible person or building manager]. Working hours [08:00 to 17:00]; occupied areas worked [times]. Panel at [location]. Alarm receiving centre [name and phone], account [ref]. Materials stored at [area].

Programme and interfaces

When the work runs, and who else is working nearby.

CDM REGULATION 15(2)

START DATEDURATIONWORKING HOURS

INTERFACES WITH OTHER TRADES

Responsible person for disablements and interim cover; alarm receiving centre for tests; owners of lifts, door releases, sprinklers and plant for cause and effect tests; electrician for the mains supply; [trade] for other fire stopping.

Documents this RAMS relies on

Design drawings, cause and effect and specification [ref]; existing system records and logbook; asbestos register or survey [ref]; disablement plan agreed with the responsible person; fire stopping details; commissioning certificates.

The team, and their competence

CDM REGULATION 8

ROLE	NAME	CARD, TICKET OR TRAINING NEEDED	CONTACT
Fire alarm engineers		Trained and experienced in fire detection and alarm systems to BS 5839-1, with trainees supervised.	
The company		Third-party certification, such as BAFE SP203-1, where the client asks for it.	
Electrical connection		A competent electrician working to BS 7671.	
Commissioning		An engineer competent to commission the system and test the cause and effect.	
Access equipment		PASMA training for mobile towers and IPAF for MEWPs.	
Asbestos		Asbestos awareness training for everyone liable to disturb it.	

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METHOD STATEMENT

The sequence of work

The order the team will work in on the day, with the controls built into each stage. If the sequence changes on site, revise the RAMS and brief it again.

STAGE	WHAT IS DONE, AND HOW	CONTROLS AT THIS STAGE	BY
Before the day	Survey the building, the existing system, the asbestos information, ceiling voids and access. Agree with the responsible person which zones will be disabled, when, and the interim cover.	Disablement plan and interim cover agreed in writing; design and cause and effect confirmed; RAMS approved.	Contracts manager
Arrival and briefing	Sign in, meet the responsible person or site manager, then brief the team on this RAMS, the disablements, the interim cover and the emergency arrangements. Check access and test equipment.	Briefing signed against this revision; PASMA and IPAF cards checked.	Supervisor
Disable zones and put on test	Tell the alarm receiving centre and the occupants, put the signal on test, then disable the agreed zones and log each one.	Interim cover in place before any zone goes out of service; disablement record started.	Engineer
Isolate the supply	The electrician isolates the panel supply, locks it off and proves it dead, and the batteries are disconnected.	Personal lock and caution notice at the point of isolation; voltage indicator proved before and after.	Electrician
Containment and cabling	Fix containment and clips, run cables through voids and risers, and record each penetration through fire-resisting walls and floors as it is made.	Access chosen by the work at height hierarchy; nobody on ceiling grids; extraction for drilling.	Engineers
Fire stopping	Seal every penetration with the fire-stopping product specified, to its tested detail, before the ceiling or riser is closed.	Penetrations checked against the record and photographed.	Engineers
Fix devices and the panel	Mount detectors, call points, sounders, beacons and interface units, then install or alter the panel and power supplies.	Device positions checked against the design; panel covers on whenever it is powered.	Engineers
Restore cover each shift	At the end of each shift, restore the zones the work allows, remove detector covers and tell the responsible person what is still out of service.	Disablement record updated; interim cover kept for anything still out of service.	Supervisor
Commission and test	With the alarm receiving centre and occupants warned, test every device, the sounders and the cause and effect, then return the signal to service.	Interfaced systems tested only with their owners told; the receiving centre confirms the system is back in service.	Commissioning
Hand over and clear the site	Hand over the certificates, drawings, logbook and user instructions, show the responsible person how to use the system, and remove waste and packaging.	Every zone restored and confirmed with the responsible person before the team leaves.	Supervisor

CDM REGULATION 15(2): PLAN, MANAGE AND MONITOR THE WORK

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RISK ASSESSMENT

Hazards, controls and the risk that remains

Each significant hazard rated before and after its controls, as likelihood times severity. The ratings are typical: check them for this site.

	LIKELIHOOD		SEVERITY		
	1	2	3	4	5
5	5	10	15	20	25
4	4	8	12	16	20
3	3	6	9	12	15
2	2	4	6	8	10
1	1	2	3	4	5
	1	2	3	4	5

1 to 4 low
 5 to 12 medium
 15 to 25 high

HAZARD	WHO COULD BE HARMED, AND HOW	RISK BEFORE	CONTROLS	RISK AFTER	BY
Falls fixing cables and devices at height	Engineers fixing containment, cables, detectors, sounders and beacons at ceiling level.	3 x 5 = 15 High	- Podium steps, mobile towers or MEWPs chosen ahead of ladders, with PASMA training for towers and IPAF for MEWPs. - Ladders only for short, low-risk tasks such as fitting a detector head, checked before use and secured. - Cable runs planned so long lengths are pulled from the floor or a platform, not from a ladder.	1 x 5 = 5 Med	Supervisor
Falls into or through ceiling voids	Engineers working above suspended ceilings and in roof spaces.	3 x 4 = 12 Med	- Nobody stands on ceiling tiles, grid or plasterboard; crawl boards across joists in roof spaces. - Temporary lighting in voids and lofts before work starts, and openings guarded when people are below.	1 x 4 = 4 Low	
Loss of fire cover during the work	Occupants, residents and staff left without warning of a fire while zones or the panel are out of service.	3 x 5 = 15 High	- Each disablement agreed in advance with the responsible person, kept to the smallest area and the shortest time. - Interim cover agreed in writing, such as fire watch patrols, wardens with manual warning, or a temporary system. - Every disablement logged, and zones restored and tested at the end of each shift where the work allows.	1 x 5 = 5 Med	Supervisor
False alarms and unplanned evacuations	Occupants, the alarm receiving centre and the fire service, from tests, dust or heat setting off the system.	4 x 3 = 12 Med	- Alarm receiving centre told before any work or test, the signal put on test, and told again when the system is back in service. - Detectors near dusty work disabled or covered only as agreed, with covers removed at the end of each shift. - Occupants warned before sounder tests.	1 x 3 = 3 Low	Engineer
Electric shock from the mains supply	Engineers working on the panel, power supplies and the mains spur.	3 x 5 = 15 High	- Supply isolated at a lockable device, locked off and proved dead before work, as EAWR regulations 12 and 13 require. - Mains connection made and tested by a competent electrician to BS 7671. - Panel covers kept on whenever the panel is powered.	1 x 5 = 5 Med	Electrician
Standby batteries	Engineers fitting, moving and disconnecting batteries in panels and power supplies.	3 x 3 = 9 Med	- Batteries disconnected before work on the panel, as the maker directs, with the terminals kept covered. - Insulated tools, and no rings or watches near the terminals. - Heavy batteries lifted with care; old or damaged batteries kept apart for licensed disposal.	1 x 3 = 3 Low	
Interfaces with doors, lifts and plant	Occupants and other trades, when tests release doors, ground lifts, shut down plant or trigger other systems.	3 x 4 = 12 Med	- Cause and effect agreed with the client and checked against the design before testing. - Owners of lifts, door releases, sprinklers, ventilation and plant told before tests, with outputs isolated where agreed.	1 x 4 = 4 Low	
Hidden cables and services	Engineers drilling ceilings and walls for cable runs and device fixings.	3 x 5 = 15 High	- Existing services checked against the drawings; cables in voids treated as live until proved dead. - Cable detector used before drilling. Non-contact detectors help find cables but are never used to prove dead.	2 x 5 = 10 Med	

MHSWR REGULATION 3(6): WITH FIVE OR MORE EMPLOYEES, RECORD THE SIGNIFICANT FINDINGS

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RISK ASSESSMENT, CONTINUED

More hazards, and those specific to this site

HAZARD	WHO COULD BE HARMED, AND HOW	RISK BEFORE	CONTROLS	RISK AFTER	BY
Asbestos in older buildings	Engineers drilling or lifting ceiling tiles in buildings built or refurbished before 2000.	3 x 5 = 15 High	- Asbestos register or refurbishment survey checked before work; materials it does not cover are presumed to contain asbestos until sampled. - Work stops and the area is left if suspect material is found or disturbed. - Asbestos awareness training for everyone liable to disturb it.	1 x 5 = 5 Med	
Breaching fire separation	Building occupants, if holes for cables through fire-resisting walls and floors are left open.	3 x 5 = 15 High	- Penetrations recorded as they are made and sealed with the fire-stopping product specified, to its tested detail. - Fire stopping checked and photographed before ceilings are closed. - Fire doors never wedged open for cable runs.	1 x 5 = 5 Med	Supervisor
Working in occupied buildings	Residents, staff, pupils, patients and the public near ladders, open ceilings and trailing cables.	3 x 4 = 12 Med	- Work area barriered, ceilings closed and tools cleared at the end of each day. - Work in sensitive areas, such as care homes, schools and hospitals, timed with the building manager. - Escape routes and fire doors kept clear at all times.	1 x 4 = 4 Low	
Noise from sounder tests	Engineers and occupants close to sounders during commissioning and tests.	3 x 2 = 6 Med	- Sounder tests kept short and timed with the occupier. - Hearing protection for engineers working close to sounders during long tests.	2 x 2 = 4 Low	
Dust from drilling	Engineers drilling masonry and concrete for fixings, and people nearby.	4 x 3 = 12 Med	- Drills with on-tool extraction suited to the dust. - FFP3 or other suitable RPE, face-fit tested, where extraction alone does not control the dust.	2 x 3 = 6 Med	
Manual handling of drums, panels and ladders	Engineers moving cable drums, panels, batteries and access equipment through buildings.	3 x 3 = 9 Med	- Cable drums run out from drum stands; panels and batteries moved on trolleys. - Ladders and long containment carried by two people on routes kept clear.	2 x 3 = 6 Med	
Lone and out-of-hours working	Engineers working alone in empty buildings at night or weekends to avoid disturbing occupants.	3 x 4 = 12 Med	- Someone in the office knows where each lone worker is, with agreed check-in times and an escalation if a call is missed. - Work at height from towers or MEWPs and work on live equipment not done alone.	2 x 4 = 8 Med	

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EQUIPMENT

Plant, equipment and PPE

Plant and equipment

Each item, the checks and certificates it needs, and who may operate it.

PUWER 1998, LOLER 1998

ITEM	CHECKS AND CERTIFICATES	OPERATOR COMPETENCE
Podium steps, towers and MEWPs	Pre-use checks; towers inspected after erection.	PASMA or IPAF trained
Detector test poles and heads	Checked before use; test aerosols used as the maker directs.	Fire alarm engineer
Voltage indicator and proving unit	Indicator proved before and after each test.	Electrician
Insulation resistance and loop tester	In calibration; devices disconnected before insulation tests.	Fire alarm engineer
Lock-off kit and caution notices	Personal locks with unique keys.	Each engineer
Drill with dust extraction	Checked before use; extraction suited to the dust.	Trained user

Personal protective equipment

PPE is the last line of defence, after the controls above. Specify the type, not just the item.

PPE AT WORK REGULATIONS 1992

ITEM	NEEDED	TYPE AND SPECIFICATION
Safety helmet	☒	Helmet or bump cap to site standard
Safety footwear	☒	Safety boots with toe protection
High-visibility clothing	☒	To site standard
Gloves	☒	Cut-resistant for containment and fixings
Eye protection	☒	For overhead drilling and ceiling voids
Hearing protection	☒	For long sounder tests at close range
Respiratory protection Type, and face-fit tested	☒	FFP3, face-fit tested, for drilling dust
Harness or restraint Anchor points identified	☐	

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CONTROLS

Substances, permits, emergencies and the environment

Hazardous substances

Each substance and its COSHH assessment.

COSHH 2002, REGULATION 6

SUBSTANCE	COSHH ASSESSMENT REFERENCE	CONTROLS
Detector test aerosol	COSHH assessment ref	Use as the safety data sheet directs; good ventilation; no flames nearby
Fire-stopping sealants, foams and batts	COSHH assessment ref	Use as the safety data sheet directs; gloves and eye protection
Silica dust from drilling	COSHH assessment ref	On-tool extraction; FFP3 RPE, face-fit tested
Standby batteries	COSHH assessment ref	Handled intact; damaged batteries bagged and kept for licensed disposal

Permits and plans

PERMIT OR PLAN	NEEDED	REFERENCE
Hot work permit	☒	
Permit to work	☒	
Permit to dig or break ground	☐	
Confined space entry	☐	
Lift plan	☐	
Temporary works design	☐	

Emergency and rescue

First aid, fire, and how someone is rescued.
The rescue plan belongs in the RAMS, not after it.

If a fire starts while zones are disabled, raise the alarm by the interim method agreed, such as call points still in service, wardens or air horns, and evacuate by the building procedure. Call 999. For an electric shock, switch off before touching the casualty. First aider and kit on site, and the nearest accident and emergency department named on the briefing.

Environment and neighbours

Dust, noise, vibration, waste, spills and hours of work.

Old detectors, panels, cable and batteries separated for specialist disposal or recycling. Packaging removed from site. Noise from drilling and sounder tests kept to agreed hours in occupied buildings.

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Disablement and fire cover record

[illegible]

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