

# Scope

- Section 6 covers all Control and Indicating Equipment including Local Alarm systems.
- Section 6 also covers all detectors and input/output devices, including Occupant Warning sounders except specific requirements of:
  - Smoke and Heat Alarms – Section 7
  - Fire Alarm Monitoring Systems – Section 8
  - Sound Systems for Emergency Purposes – Section 9
  - Intercom Systems for Emergency Purposes – Section 10

# Inspections

- Inspections were not specified in AS1851.8 but were implied as part of the test process.
- Control and indicating equipment is to be inspected monthly.
- External alarms and the battery enclosure are to be inspected six monthly.
- All other components such as detectors, visual warning devices are to be inspected yearly.

**TABLE 6.4.1  
INSPECTION AND RECORDS SCHEDULE—FIRE DETECTION SYSTEMS**

Item No	Item	Action required & Pass/fail requirement	Frequency			Records		
			Monthly	Six-monthly	Yearly	Five-yearly	Result	Pass/fail
1.1	Control and indicating equipment (c.i.e.)	INSPECT the fire indicator panel, subindicator panel, repeater panel or mimic panel to ensure that they are clearly visible readily accessible and free from dust and contaminants. Where the panel is obscured by a door, check that the door is correctly labelled.	✓	✓	✓	—	.....	
1.2	External alarm indication	INSPECT the local alarm indicator (bell or strobe light) to ensure it clearly indicates the designated building entry point.	✓	✓	✓	—	.....	
1.3	Battery enclosure	Where vented batteries are used, INSPECT the battery enclosure for evidence of corrosion.	✓	✓	✓	—	.....	
1.4	Actuating devices	INSPECT all actuating devices and remote indicators for any condition that is likely to adversely affect their operation, such as excessive deposition of dust or coating of paint.		✓	✓	—	.....	
1.5	Manual call point glass	Where manual call points use replaceable frangible elements, ENSURE that at least one replaceable element and a tool for replacing such elements are available.		✓	✓	—	.....	

**TABLE 6.4.1  
INSPECTION AND RECORDS SCHEDULE—FIRE DETECTION SYSTEMS**

Item No	Item	Action required & Pass/fail requirement	Frequency				Records	
			Monthly	Six-monthly	Yearly	Five-yearly	Result	Pass/fail Comments
1.6	Alarm sounders	Where bells are used as the alarm indicating devices, INSPECT all devices to ensure that they are marked in accordance with AS 1603.6.		✓	✓	—	.....	
1.7	Visual warning devices	Where visual warning devices are used as the alarm indicating devices, INSPECT all devices to ensure that they are marked in accordance with AS 1603.11.		✓	✓	—	.....	
1.8	Other warning devices	Where other warning devices are used as the alarm-indicating devices, INSPECT all devices to ensure that they are in place.		✓	✓	—	.....	
1.9	Block plan	INSPECT block plans and zone drawings to ensure the plan is legible and current.		✓	✓	—	.....	
1.10	Monitoring connection	Where the system is monitored, INSPECT records of monitoring reliability.		✓	✓	— %	.....	

# Tests

- The test schedule of AS 1851 for fire detection systems is more detailed and includes a number of additions to AS 1851.8.
- In particular there are now procedures for five yearly tests of a number of functions including detector sensitivity.
- For Conventional smoke detectors this means cleaning and calibrating. For analogue addressable smoke detectors the sensitivity must meet the original installed percentage.

# New Tests

Item No	Item	Action required & Pass/fail requirement	Frequency				Records		
			Monthly	Six-monthly	Yearly	Five-yearly	Result	Pass/fail	Comments
2.3	Power supply supervision	Where the c.i.e. is monitored, REDUCE the c.i.e. operating voltage to trigger a power supply supervision fault and CONFIRM that it is processed by the monitoring service provider. Where the c.i.e is a sub c.i.e. confirm that the power supply supervision fault condition is indicated at the fire c.i.e.	✓			✓	—	.....	
2.4	Isolate	INITIATE an isolate/disable condition at the fire indicator panel and, where the c.i.e. is monitored, ensure the isolate is processed by the monitoring service provider. Where the c.i.e is a sub c.i.e., confirm that the isolate/disable condition is indicated at the fire c.i.e. as either a fault or isolate/disable	✓	✓	✓	✓	—	.....	
2.7	Aural indicators	TEST the operation of the aural indicator.	✓	✓	✓	✓	—	.....	

# New Tests

Item No	Item	Action required & Pass/fail requirement	Frequency				Records		
			Monthly	Six-monthly	Yearly	Five-yearly	Result	Pass/fail	Comments
2.15	Battery	Where the battery has not been replaced within the previous two years, TEST the battery capacity.		✓	✓		Required capacity...Ah Measured capacity...Ah	.....	
2.17	Actuating devices	REMOVE, for collective fire detection systems circuits, the last detector on the systems circuit from each alarm zone and confirm that a fault signal is registered at the CIE.		✓	✓		—	.....	
2.18	Smoke alarms (where connected)	DISCONNECT, where smoke alarms are connected to the c.i.e, at the last smoke alarm c.i.e. power if not alarm circuit powered and separately the alarm circuit, from each alarm zone and confirm that a fault signal is registered at the c.i.e.		✓	✓		—	.....	

# New Tests

Item No	Item	Action required & Pass/fail requirement	Frequency				Records		
			Monthly	Six-monthly	Yearly	Five-yearly	Result	Pass/fail	Comments
2.29	Interface and control test	CONDUCT a functional system test with other interfaced fire systems (e.g., sprinkler, sound system, HVAC) as set out in relevant sections of this Standard.  VERIFY that the interface functions in accordance with the system interface schematic for the building.			✓	✓	—	.....	
2.30	Occupant warning system	UNDERTAKE sound pressure level tests and ensure the sound pressure level meets the requirements of the commissioning report.				✓	—	.....	
2.31	Smoke, flame and CO detectors	CHECK the sensitivity of all detectors to ensure each is within the required sensitivity range. For conventional smoke detectors this means cleaning and calibrating.				✓	—	.....	
2.32	Monitoring connection	Where the system is monitored, TEST that the loss of each of the monitoring links is indicated at the monitored site.				✓	—	.....	

# Preventative Maintenance

- Consists of periodic replacement of valve regulated sealed lead acid batteries which are now known to have a much shorter effective life than the previously accepted life of five years.
- Any other preventative maintenance is on a case by case basis due to drift in system components that would be identified by tests.

# Survey

- Survey is a new requirement for all sections of AS 1851.
- Surveyors require knowledge of the installed edition of AS 1670.
- Surveyors also require a sound knowledge of detector applications to ensure that installed detectors are appropriate to the occupancy

# Survey

Item No	Item	Action required & Pass/fail requirement	Frequency				Records	
			Monthly	Six-monthly	Yearly	Five-yearly	Result	Pass/fail Comments
4.1	Actuating devices	INSPECT all actuating devices to ensure spacing and location requirements in accordance with AS 1670.1.		✓	✓		—	.....
4.2	Unprotected areas	INSPECT all areas in the building to ensure detectors are installed as required by AS 1670.1.		✓	✓		—	.....
4.3	Change of use	INSPECT all areas in the building to ensure actuating devices are appropriate for the hazard.		✓	✓		—	.....