5. Testing and Maintenance Schedule

5.1 Maintenance Statement

It is a requirement under the Regulatory Reform Order of 2005 that a person shall be responsible for the maintenance of the smoke control system and this has to be tested and maintained in accordance with the schedules contained in BS9999 as detailed below in the extracts for the mechanical smoke control system and associated smoke detection. It is also necessary to carry out maintenance in accordance with manufacturers recommendations for each component.

5.2 Testing and Maintenance Schedule from BS9999

BRITISH STANDARD BS 9999:2017

Annex I (normative) Routine inspection and maintenance of fire safety installations

I.1 General

NOTE Fire safety installations comprise the items and elements of which examples are listed in Annex K.

It is essential for the safety of the occupants of a building that fire safety equipment (including passive fire protection provisions) is inspected frequently. Although much of the inspection can be undertaken by suitably trained personnel, a formal agreement should be made with the installer or the installer's representative to provide the regular inspection and testing described in the relevant British Standards for individual fire safety installations. Unless temporary alternative fire safety systems can be put in place, it might be appropriate for certain of the inspections carried out at three-monthly or longer intervals to be done outside normal working hours.

I.2 Daily inspections

I.2.1 General

The checks described in **I.2.2** to **I.2.6** should be undertaken daily. For premises with defined opening times such as shops, theatres and cinemas, these checks should be undertaken prior to members of the public entering the building.

I.2.2 Fire detection and alarm systems

All fire detection and alarm systems should be inspected daily. In particular, it should be ensured that:

a) The control panel indicates normal operation or, if any fault is indicated, that it has been logged and the appropriate action(s) taken;

b) Any fault recorded the previous day has received attention.

I.3 Weekly

I.3.1 General

In addition to the checks recommended in **I.2**, the checks described in **I.3.2** to **I.3.7** should be undertaken once a week.

I.3.2 Fire detection and alarm systems

All fire detection and alarm systems should be inspected weekly. In particular, it should be ensured that:

a) The control equipment is able to receive a fire signal and to initiate the evacuation procedure, recording which trigger device has been used, in accordance with BS 5839-1 2013;
b) Any standby batteries are in good condition and the fuel, oil and coolant levels of any standby generators are correct, topping up as necessary;

f) The mode monitoring system for stop valves in life safety installations is operating correctly;
g) There is continuity of connection between the alarm switch and the control unit and between the control unit and the fire and rescue service (usually via a remote manned centre) for automatically monitored connections;
h) Trace heating systems provided to prevent freezing in the sprinkler system are functioning correctly.

I.3.5 Smoke control systems for means of escape
Actuation of the system should be simulated once a week. It should be ensured that any fans and powered exhaust ventilators operate correctly, smoke dampers close (or open in some systems), natural exhaust ventilators open, automatic smoke curtains move into position, etc.

I.4 Monthly

I.4.1 General
In addition to the checks recommended in **I.2** and **I.3**, the checks described in **I.4.2** to **I.4.9** should be undertaken once a month.

I.4.2 Fire detection and alarm systems
Any standby generator should be started up once a month by simulating failure of the normal power supply, and allowed to energize the system for at least 1 h, while the system is monitored for any malfunctioning caused by the use of the generator. After restoring the normal supply, the charging arrangements for the generator starting battery should be tested, and the appropriate action should be taken if they are found not to be functioning correctly. In addition, the oil and coolant levels should be topped up and the fuel tanks filled.

I.5 Three-monthly

In addition to the checks recommended in **I.2**, **I.3** and **I.4**, the actuation of all smoke control systems should be simulated once every three months. All zones should be separately tested and it should be ensured that any fans and powered exhaust ventilators operate correctly, smoke dampers close (or open in some systems), etc.

I.6 Six-monthly

I.6.1 General

In addition to the checks recommended in **I.2**, **I.3**, **I.4** and **I.5**, the checks described in **I.6.2** and **I.6.3** should be undertaken once every six months.

Arrangements should be made for six-monthly inspections and tests to be carried out by competent persons on the fire detection and alarm systems, the sprinkler systems, any extinguishing systems, the emergency and escape lighting systems and the fire-fighting lift, for any defects found to be logged and the necessary action taken, and for certificates of testing to be obtained.

I.7 Yearly

NOTE Attention is drawn to the testing and inspection requirements of BS 7671.

In addition to the checks recommended in **I.2**, **I.3**, **I.4**, **I.5** and **I.6**, arrangements should be made for annual inspections and tests of the following to be carried out by competent persons, for any defects to be logged and the necessary action taken, and for certificates of testing to be obtained:

a) Fire detection and fire alarm systems;
b) Self-contained luminaires with sealed batteries, if more than 3 years old;
c) Sprinkler, drencher and watermist systems;
d) Smoke ventilators and smoke control systems;
e) Fire dampers
f) Evacuation lifts;
g) fire-fighting lift installations;
h) Fire hydrants;
i) Fire mains;
j) portable fire extinguishers;
k) Hose reels.

Stocks of foam concentrate or solution should be checked annually and replenished as necessary.

Technical Specification for Basement Smoke Ventilation System

Client : Kempton Homes
Date : 15/06/2026
Reference : PSBUK 86024 Rev P03
Project : 80 Oldham Street, Manchester

Sound Data At Full Speed

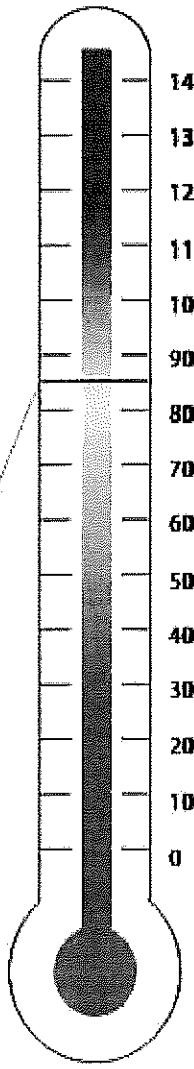
Spectrum (Hz):	63	125	250	500	1K	2K	4K	8K	dBW	dB(A) @ 3m
Inlet (dB):	102	104	104	103	101	103	102	97	111	88
Outlet (dB):	104	106	104	104	101	104	102	97	112	89
Breakout (dB):	96	93	84	81	76	77	68	67	98	64

Sound levels are quoted as in-duct values. dB(A) values are average spherical free-field for comparative use only.
Fan Breakout Sound Power Levels exclude the breakout from any attached ductwork or flexible connections and are calculated from the Inlet and Outlet Sound Power Levels, considering the Sound Reduction Index of the Fan Casing.

How loud is too loud?

Volume levels are measured in decibels (db).

The maximum safe exposure limit is 85 db. Excessive exposure to levels above that can cause headaches, nausea, and hearing damage.



140	Jackhammer
130	Fireworks
120	Rock Concert
110	Chainsaw
100	Maximum iPod Volume
90	Hair Dryer
80	Police Car Siren
70	Medium iPod Volume
60	Normal Conversation
50	Heavy Rainfall
40	Moderate Rainfall
30	Running Dishwasher
20	Leaves Rustling
10	Whisper
0	Silence