

# **The case for remote monitoring of Smoke Control systems**

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An advice note published by the Ministry of Housing, Communities and Local Government (MHCLG) is providing information to building owners on the maintenance of smoke control systems.

The note, published on February 7, 2019, says: *“This advice note is for the attention of those responsible for residential buildings of 18 metres or over. The note covers issues around the maintenance of buildings with smoke control systems.*

*“The principles of this advice may also be applicable for other building owners who have, or should have, smoke control systems installed.”*

The advice note sets out a number of clear points and states *“the responsible person under the Regulatory Reform (Fire Safety) Order 2005 has a duty to ensure that there are appropriate fire safety measures in place and to carry out a fire risk assessment.”*

The note clearly sets out how the responsible person should ensure they understand and properly record what provision is installed and manage the ongoing maintenance of the system.

Responsibilities are made clear, including *“If you become aware that any element of the smoke control system is defective or in need of repair this should be remedied immediately.”*

You can read the full advice note at <https://www.gov.uk/government/publications/advice-for-owners-of-buildings-with-smoke-control-systems>

Responsibilities have been under much scrutiny recently. In the wake of the Grenfell Tower tragedy, a number of organisations were brought together to form a steering group capable of taking forward key recommendations in Dame Judith Hackitt’s Independent Review of Building Regulations and Fire Safety.

The final report recommends a very clear model of risk ownership, with clear responsibilities for the Client, Designer, Contractor and Owner to demonstrate the delivery and maintenance of safe buildings, overseen and held to account by a new Joint Competent Authority (JCA).

Following the creation of a new Joint Competent Authority (JCA), comprising Local Authority Building Standards, fire and rescue authorities and the Health and Safety Executive (HSE), an Industry Response Group (IRG) and sub-group – The Steering Group on Competency for Building a Safer Future – began work to improve competences for those working on the design, construction and operation of higher risk residential buildings (HRRBs).

The process of identifying and developing specific competency frameworks and accreditation pathways has been taken on by 12 working groups – Engineers, Installers, Fire Engineers, Fire Risk Assessors, Fire Safety Enforcement Officers, Building Control/Standards Inspectors, Building Designers/Architects, Building Safety Managers, Site Supervisors, Project Managers, Procurement and Products.

## **Maintenance**

With regard to occupation and maintenance of HRRBs, the report identified the fact that Responsible Persons under the Fire Safety Order are frequently not identified for residential buildings at the point of handover of the building, and so are often not aware of their responsibilities for managing fire safety risk in the common parts (shared areas such as corridors, hallways, etc.).

Under the Fire Safety Order, there are usually a number of persons subject to the obligations of Responsible Person for the premises. In residential buildings this is usually the building owner, landlord or managing agent, but may also be any other persons with a degree of control over the premises.

The Responsible Person is not required to make their role known to residents and the scheme of the Fire Safety Order does not provide for direct accountability of the Responsible Person(s) to residents, but rather to the appropriate enforcing authority (usually the fire and rescue authority). In residential and mixed-use buildings in particular, identifying the appropriate Responsible Person(s) for the common parts and/or the various workplaces in the building can be highly complex and time-consuming. A key recommendation of the report is that Government should specify that responsibility for the safety of all parts of a HRRB must be held by a clear, senior duty holder which should be the building owner or superior landlord.

### **Regular servicing**

A smoke control system should be inspected and tested at least annually by a suitably qualified person. For smoke control systems there is no universally accepted definition of a qualified person which makes it difficult for a responsible person to judge the competence of prospective vendors.

The Smoke Control Association, the trade association for smoke control specialists, has responded proactively to the Hackitt Review and raised its membership criteria to ensure members can be specified with confidence for maintenance, repair and advice on all areas of smoke control. As well as committing to applying the latest standards for product testing, certification and system design, all members undergo third party certification through an independent body. Using or specifying a SCA member ensures a base level of competence

### **Weekly testing**

Annual inspection ensures that the system is functioning correctly at the time of inspection. Between annual or six-monthly visits by the specialist smoke control contractor the responsibility for regularly testing the installation lies with the responsible person. The MHCLG advice note confirms that tests should be undertaken weekly to ensure correct operation however for HRRBs this can be an onerous task. In such buildings there is often no dedicated on-site maintenance or management personnel available so a visual inspection of every floor of the building would seem unlikely. If such tests are not carried out then there is a risk of a system failure not being detected between annual service visits which could introduce an unacceptable level of risk to occupants of such buildings.

### **Remote monitoring and testing**

A self-testing and remote monitoring solution can help to ensure that a smoke control system is working properly, and that you stay compliant.

One of the most important advantages of remote monitoring is that it can be carried out 24/7 and systems can send an alert any time of the day so that any issues and failures can be addressed immediately. Without remote monitoring, an issue might go unnoticed for days or weeks. This means

that if a fault occurs the system or component would remain inoperable until the next scheduled maintenance visit, impacting fire safety should an incident occur.

Regular testing, including the opening and closing of actuators and the operation of fans (where appropriate) is essential to overall fire safety. Should any issues arise during testing then prompt action can be taken to resolve problems before they become incidents.

Being able to schedule regular weekly and monthly tests of every component on the system overcomes the time consuming and expensive task of manually checking every floor in a multi-storey building on a regular basis. A monitoring solution that can automatically self-test a smoke control system on a scheduled basis helps avoid the potential issue of such tests being overlooked due to budget pressures, or non-availability of personnel.

### **Secure remote monitoring**

The ability to securely access, test and diagnose any issue remotely can improve the productivity of maintenance operations, save on callout costs or avoid any unnecessary visits. Maintenance personnel can be directed straight to the area or system components where the problem exists and resolve issues speedily. For instance: If a head of stair vent was staying open because someone had used the override switch, then the system could be reset remotely avoiding an unnecessary visit. In addition, software updates of control panels can be applied remotely from a service centre without the need for a site visit.

### **Safety and compliance**

Remote monitoring can provide organisations with essential insights to the overall health of their system. It ensures that system failures are detected and rectified promptly and is a cost-effective way for building owners to fulfil their obligations under the Regulatory Reform Order (Fire Safety) 2005. Furthermore, regular test reports can be issued to the building operator or facilities manager to certify that the system is healthy for compliance with RRO 2005.

Remote monitoring does not replace the need for annual service visits but will give building owners peace of mind that the life safety systems are being monitored and tested.