

Work on Sprinkler Systems & Other Fire Protection Equipment by Landsec or tenant's contractors

Purpose

The purpose of this procedure is to provide generic advice about the actions that people involved with the management of fire safety e.g. Property Managers, Operations/Centre Managers, Management Surveyors, Technical Managers, Building Surveyors, Engineers etc. (collectively called Property Manager in this document) must take when planning an installation or an alteration, or giving consent to a tenant alteration of sprinkler systems and other fire protection or life safety equipment, or when dealing with an unexpected failure of a system.

Introduction

Alterations may be instructed by Landsec or by the tenant of a particular demise. It is commonplace for these alterations to affect the sprinkler system or other fire protection or life safety equipment.

Some sprinkler and fire/life safety systems are the responsibility of the tenant, the landlord, or both – e.g. where the tenant installs a system that connects with the Landlord's infrastructure. In all these circumstances, the Property Manager is responsible for ensuring that the systems are operational, and that Insurers are aware when there are planned impairments or emergency breakdowns.

This generic guide is designed to cover all Retail and Office properties, on occasion it is possible that anomalies will arise which may require different procedures to be adopted e.g. where we have JV ownerships, Landsec is not the freeholder or site-specific requirements. Please check with the Insurance Department if in doubt.

All work on the sprinkler system must comply with the LPC Rules for Automatic Sprinkler Installations 2015 incorporating BSEN 12845.

1

What works require notification to the Insurer?

- a) Any sprinkler installation that:
 - involves work to over 10 heads **and/or**
 - is not undertaken by a specialist sprinkler company, certified to an appropriate level within an independent 3rd party accreditation scheme, and/or has non-conformities to the LPC Rules for Automatic Sprinkler Installations 2015 incorporating BSEN 12845.
- b) If any fire protection equipment (e.g. sprinklers, fire alarms, smoke detectors, dry risers, hose reels, fire extinguishers or other life safety equipment) will be out of service for more than 48



hours. Even if insurers have given agreement to the works in (a) above, insurers need to be notified of the actual impairment before it takes place.

- c) If the works overrun the originally agreed timeframe.
- d) Even if insurers have approved the revised drawings it is still necessary to advise again when the installation is being impaired if it will be out of operation for more than 48 hours.

2 Who should be notified?

Note – if in doubt please check that Aviva are the appropriate Insurer for the property:

- a) Sprinkler installations and alterations
Daniel Beaumont Aviva Risk Management Solutions sprinklerinstallation@landsec.com
07800 691374
- b) Automatic Fire Alarm installations and alterations
Mike Nolan Aviva Risk Management Solutions afainstallations@landsec.com
07885 648256
- c) Impairments to sprinklers or other life safety equipment that will last for more than 48 hours
Aviva underwriters and Insurance Team at 100 Victoria Street? using impairments@landsec.com

3 What do the Insurers require?

- a) Sprinkler installations and alterations
 - Description of work to be undertaken (emailed to sprinklerinstallation@landsec.com)
- b) All drawings, including any relevant hydraulic calculations and water supply details Automatic Fire Alarm installations and alterations
 - Description of work to be undertaken (emailed to afainstallations@landsec.com)
- c) Specification and drawings of installation Impairments to sprinklers or other life safety equipment
 - Completed form 'Work on Sprinkler Systems an other Fire protection Equipment Questionnaire- (emailed to impairments@landsec.com)

Please note that adequate time should be permitted for drawing review and revision. A response will be issued by Aviva within 10 working days of receipt of all required documents.

Prior to the drawings being issued to the property insurers, an internal review is to be undertaken by the sprinkler or AFA contractor to ensure all appropriate information is included. Drawings will be rejected if they are only in preliminary status or if they do not contain sufficient basic detail e.g., details and locations of pipework supports, absence of dimensions between sprinklers and partitions / walls, lack of hydraulic calculations, do not include a cross sectional detail (indicating the sprinkler head locations, pipework, ceiling levels and other large services) and do not list any applicable non-compliances with the current LPC Rules for Automatic Sprinkler Installations 2015 incorporating BS EN 12845.



4 What is the Notification Period?

- At least two weeks in advance, if the suspension of service is pre-planned, or;
- Immediately, if the failure is unforeseen.

5 What measures are generally required for notifiable works?

Every effort should be made to ensure that the sprinkler and automatic fire detection equipment is not impaired at the same time. This allows for the operational equipment to send an alert in the event of a fire.

The Property Manager should;

- ensure that a risk assessment is in place and where necessary consultation has taken place with the Local Authority
- ensure there is no obvious potential for fire to break out while the system is impaired, e.g gas bottles, combustible rubbish and live heat sources are tightly controlled.
- ensure that a thorough examination of every part of the premises is undertaken to ensure there is no indication of fire
- consider notifying the fire brigade that the sprinkler system will be inoperative
- advise the alarm receiving centre or Control Room
- advise tenants and staff of the shut down
- consider provision of additional firefighting equipment
- ensure all smoking is prohibited,
- ensure that all fire doors are closed
- ensure frequent security patrols are arranged within the whole affected area during the period of the shutdown to detect any outbreak of fire.

Authority should not be given to carry out a proposed shutdown until you receive written confirmation from insurers or Insurance department the proposed works are authorised and insurers are maintaining cover.

Additional actions specific to impairments to the life safety system;

- With regard to retail fronting onto a covered mall, generally the local authority will require a fire hoarding or fire blanket to be installed to offer 1 hour fire protection at the shop front. This needs to be in place prior to any alterations starting
- Ensure that there is a form of fire detection in place (in the instance of a new unit, a temporary fire alarm may be considered); however this should be coordinated with the fire strategy of the property and the approval of the local authority.

6 What measures are generally required for non-notifiable works?

- The contractor should issue a Certificate of Conformity (note; a standard Completion Certificate will not suffice)



Once the Property Manager is satisfied the risks are being effectively managed and the above measures are in place, then a Permit to Work may be issued.

7 Sprinkler Installations - Submission Guidance & Notes:

- All design drawings and supporting information are to be issued in a legible PDF format, by e-mail, with all non-relevant details removed, e.g. low-level fixtures, fittings, etc. DWG format design drawings should not be issued. Note: Web-based / file-sharing sites cannot be used due to internal security measures.
- All design drawings need to be Construction or Approval issue and include a full description of the works being undertaken. Any design drawings that are Preliminary, Provisional, Subject To Survey, etc. should not be issued for approval. Note: Where completion of design drawings is subject to, for example, the removal of existing suspended ceilings to allow a site survey to be undertaken, design drawings need to be issued as soon as is practicable following the commencement of works on site. This needs to be advised in writing, including an anticipated date of issue and the contract completion date.
- All design drawings need to be internally reviewed and verified by the sprinkler contractor prior to issue. Note: This review needs to be evidenced on the design drawings, and completed independently of the designer.
- Design drawings need to include, as far as is practicable, full details of any existing / retained sprinkler protection, including sprinkler spacing / location dimensions to demonstrate compliance with the current standards. Note: It is the responsibility of the sprinkler contractor to review all existing / retained sprinkler protection, regardless of the extent of works. Any non-compliance(s) identified will need to be rectified in conjunction with the contract works. Where it is not possible to determine existing pipe work routes and sizes, e.g. where an existing plasterboard ceiling is being retained with no access above, then as a minimum the existing sprinkler locations need to be detailed including full spacing / location dimensions, and any survey access restrictions need to be noted on the design drawings. Areas detailed as, for example, 'Not in Scope of Works' will not be accepted.
- All design drawings need to include comprehensive sprinkler spacing / location dimensions relative to the building structure, including beams, full height partitions, services, etc., all of which should be clearly identified. All pipe fabrication dimensions, unless separately detailed, need to be removed.
- Wherever possible, sprinkler deflectors are to be installed between 75mm and 150mm from the structural ceiling in accordance with the current standards. Note: The maximum distances of up to 300mm and 450mm (as applicable) should ONLY be used where circumstances make this unavoidable.
- Comprehensive, i.e. not typical or part, sectional details are required through each level of the unit / area, showing the distance of sprinkler deflectors from ceilings, structural features, voids depths, etc.
- Sprinkler protection to floor openings, e.g. escalators and stairwells, and relative to open faces, mezzanine perimeters, combustible partitions, etc. is to be provided in accordance with the current standards.
- A full schedule of the sprinkler heads needs to be provided including type(s), temperature rating(s), number of sprinklers, areas of protection, etc.
- All equipment associated with the sprinkler protection, e.g. the type and location of all pipe work supports, isolation / zone valve(s), flow switch(s), zonecheck(s), etc. needs to be fully detailed. Note:



Any associated electrical works and the responsibility for such works also needs to be detailed, e.g. provision of a power supply, interface with the fire alarm system, etc.

- Where plasterboard or similar solid suspended ceilings are proposed, unless the requirements of TB227.2.4.2(k) can be complied with in full for each individual 2nd fix sprinkler head, the 2nd fix method employed will need to be 'hard pipe' and the design drawings must detail this. The presence of any existing flexible sprinkler connections is not to be considered as setting a precedent for their use or suitability. In all instances, any site-specific requirements or restrictions in relation to the 2nd fix method employed needs to be confirmed by the sprinkler contractor. Note: In the case of re-fits requiring the re-positioning of 2nd fix sprinkler head locations, any existing flexible sprinkler connections will need to be scrapped and replaced with new. The repositioning / re-use of existing flexible sprinkler connections is NOT permitted.
- Full pressure loss calculations from the design point(s) back to the installation control valve / high rise zone valve (as applicable) need to be detailed. Note: If, for example, the losses between the installation control valve and the connection point cannot be established, the pipe work between the connection and the design point and / or any remote array must be sized to the existing connection point.
- The fire rating / constructional details of floors, ceilings, roofs, exterior walls and any walls separating any sprinkler protected and non-sprinkler protected areas are to be detailed.
- Any existing and / or potential non-compliance(s) identified need to be clearly detailed on the design drawings for consideration.