External Cladding System Inspections

Service Specification

Introduction

Non-loadbearing external cladding systems have for many years been used to increase the thermal performance of multi-storey residential tower blocks and other high-rise buildings to enhance the building's lifespan. Increasingly, these systems are being used in new buildings with the cladding systems being fixed to and supported by a light steel frame and a wide range of design solutions and materials are currently available.

The risk of fire spread in multi-storey buildings is an issue of current concern, and recent fires have continued to highlight this. External cladding systems have the potential to quickly spread fire through a multi-storey building causing potential loss of life and extensive property damage.

The Problem

Property owners and property managers are now required to demonstrate the safety of their building's cladding systems and to help them in this often very complex process, the Government (through the Ministry of Housing, Communities and Local Government [MHCLG]) has been publishing an increasing number of Guidance Notes and Advice Notes.

However, the requirement to demonstrate the safety of their building's cladding systems is often not straightforward due to there being a general lack of technical information concerning the installed cladding system including no details of cavity barriers, construction and product specifications.

Property owners and property managers are then faced with the need to instruct competent fire specialists or consultants to provide their expert opinions in respect of offering an answer to the cladding system safety question.

Quantum Compliance has a team of competent fire specialists who are experienced in inspecting building cladding systems and have developed the following service approach.

General Inspection / Testing

It is generally the case that where metallic / non-metallic cladding has been identified on high-rise buildings, the cladding system has never been tested to confirm whether the materials are non-combustible. It is important therefore, that the inspection / testing concentrates on the entire cladding system and not just the external

material. The cladding system may be made up of a metallic skin with a substrate and insulation attached, or there may be layers of insulation or other materials behind the cladding.

Testing in isolation often has limited value and therefore, we would propose an approach where we check the compartmentation and fire stopping behind the cladding as this may mitigate the results of the testing.

The Approach:

Stage 1 – Desk Top Review

- The client will need to provide all available documentation relating to the building's cladding system, for example, 'As Built' Drawings, Operation and Maintenance Manuals, Product Technical Specifications and any previous cladding and fire safety reports (note that this is a non-exhaustive list). A review of the available documentation will enable the fire specialist to prepare for the Initial Property Inspection Visit.
- NOTE: At this stage the fire specialist could identify the need for a cladding sample to be taken for the purposes of determining whether it meets the following standards:
    - ISO 1716 to class A2 (building over 18m) or
    - Appropriate recommended 'Reaction to fire performance of external surface of walls' (buildings below 18m).

Stage 2 – Preparatory Inspection Visit

- The fire specialist will visit the property in order to identify the locations for intrusive investigations in the cladding systems. Investigation locations will include (but will not be limited to) exposing areas between compartment floors and walls, ducts or flues penetrating external cladding, around windows/doors and adjacent to means of escape e.g. staircases.
- Following this inspection visit, the fire specialist will prepare a Cladding System – Investigation Locations Report which will include photographs and descriptions of the cladding areas requiring investigation.
- The client will then be responsible for appointing a competent contractor who will determine the most appropriate method of exposing the locations of cladding system identified in the Cladding System – Investigation Locations Report; furthermore the competent contractor will also identify the most appropriate method of accessing the cladding locations, for example, mobile elevating work platforms together with their safe method of operation.
- NOTE: It will be the client's responsibility to directly instruct the competent contractor and Quantum Compliance cannot be held liable for the method chosen of exposing the locations of cladding system and any subsequent damage caused.

Stage 3 - Inspection Visit

- The fire specialist will visit the property with the competent contractor appointed by the client to inspect the locations of the cladding requiring investigation.
- Where the fire specialist has identified the need for a cladding sample to be taken for the purposes of determining whether it meets the relevant fire safety standards, the competent contractor will be responsible for liaising with the client in order to identify and agree the most suitable location where a 300x300mm section of cladding can be taken.
- The fire specialist will then arrange for the cladding sample to be sent to an approved third-party testing laboratory.
- NOTE: The cladding sample testing would be subject to an additional fee.

Stage 4 – Cladding System – Fire Safety Report

- The fire specialist will then prepare a report which will include the following information:
    - Description of the property including its height, number of floors, relevant design features etc;
    - Details of locations of compartment floors and walls in the building/premises.
    - Details of the installed cladding system including product type, method of attachment and location.

- The appropriate fire safety standard for the cladding system for the property type.
- Cladding system inspection findings including results of testing (if appropriate).
- Conclusions i.e. whether the cladding system meets the appropriate fire safety standard and can therefore, be deemed to meet an acceptable level of safety.
- Where the external cladding is deemed not to meet an acceptable level of fire safety, remedial action will be recommended.

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Quantum Risk Management Ltd
t/a Quantum Compliance
1 The Courtyard, Harris Business Park, Stoke Prior B60 4DJ
T 0800 644 4142 | **W** qcompliance.co.uk