Inspect and Protect with ATLAS

Client Checklist for Lightning Protection Systems

Clients with an existing lightning protection system (LPS) should ensure that the following works are completed as standard. When obtaining quotations for an inspection of the LPS, use this handy checklist to ensure it is undertaken to the relevant standard.

Confirming that your Specialist Contractor is able to follow this checklist will ensure the safety of your building, employees and systems.

Technical Documentation

The engineer will request to see technical documentation from the original installation of the LPS prior to testing it and clients should provide this wherever possible:

- ☐ Original Operation and Maintenance (O&M) manual
- ☐ Design criteria stating the as installed standard
- ☐ Full design description including all components
- ☐ Technical as installed drawings
- ☐ Original installation and maintenance reports
- ☐ Earth reading records including the overall resistance of the LPS and individual earth readings.

Visual Inspections

Visual inspections of all accessible areas of the LPS should be carried out by the engineer and include the following:

- ☐ Design conformity with the as installed standard
- ☐ General condition of the LPS
- ☐ Damaged or unfixed conductors and components
- ☐ Corrosion (especially between dissimilar metals)
- ☐ Additions or alterations to the LPS since the last inspection
- ☐ Extensions to the structure not covered by the original LPS
- ☐ The presence of Surge Protection Devices and their functionality, where possible
- ☐ Equipotential bonding for all systems where items are directly connected to the LPS
- ☐ Separation distances for BS EN 62305 systems with items protected by zone of protection and not bonded to the LPS.

Testing

An LPS is installed to British Standard EN 62305 and clients should ensure that testing is carried out in accordance with the same standard. The method of testing used by the engineer should be appropriate to the system design and the structure's location. Testing should always include:

- ☐ Recording of individual and overall resistance values
- ☐ Continuity testing of those parts not visible
- ☐ Individual earth electrode resistance tests
- ☐ Overall calculated earth resistance valve.

Maintenance Programme

A test and maintenance programme should be set up on an annual basis. The frequency of testing should take into account the following:

- ☐ Changes in the classification or use of the building
- ☐ Alteration, modification or repair to the structure especially the surfaces to which the LPS is attached
- ☐ Changes to the local environment, including corrosion rates and soil conditions
- ☐ Whether there has been a strike or suspicion of a strike to the system.

Further Recommendations

If improvements to the LPS are recommended by the Specialist Contractor, the client should be provided with a full written report detailing the defects apparent, the reasons for their non-compliance with the LPS and, where possible, photographic evidence of physical damage. An estimate for the recommended works should then be provided with full details of the repairs.

Test engineers should have the required knowledge and experience to undertake test and inspections. A full range of NVQ qualifications are available in Lightning Conductor Engineering and further information can be obtained from the ATLAS leaflet **Choosing a Specialist Contractor for your Lightning Protection System**.

ATLAS has developed a standard test certificate for use by its members, which gives clients the confidence that all items have been tested to the required standard.

The Association of Technical Lightning & Access Specialists (ATLAS) has been representing the leading companies in the lightning protection and steeplejack industry since 1946.

The Inspect and Protect Campaign from ATLAS aims to establish clear standards of competency and encourage clients to specify ATLAS members for testing and inspection work.

To find an ATLAS member in your area, visit atlas.org.uk.

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