

Newburn Provides Emergency Power To The Lifts At Victorian Mill Conversions In The Event Of A Mains Failure

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In a fire, a safe, reliable source of power is of paramount importance. Tasked with supplying emergency firefighting power for Victorian mill conversions, Newburn Power Rental's expertise and commitment to health and safety made them the perfect partner for power safety - instilling confidence should the worst happen.

The client, who are converting mills into luxury apartments - initially in and around Leeds,

Halifax and Manchester, the centres of Victorian industry – gave Newburn a two-fold job.

Providing emergency power to the lifts in the event of a mains failure was one element, with a critical requirement to ensure power for lifts and smoke extraction fans for the emergency services in the event of a fire.

Emergency Communication Systems

The vital importance of firefighter access and safety is recognised and legislated through numerous Standards and Regulations, and inadequacy or non-adherence can have devastating effects. As LEIA (the trade association and advisory body for the lift and escalator industry) note, the development of British and European Standards has been central to lowering accident rates – both to people using lifts, escalators and lifting platforms, and to those working on them.



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For firefighting lifts, the requirements are covered by Standard EN 81-72:2105, which replaced the 2003 version and includes changes to the physical structures of firefighter lift systems as well as amendments to requirements for emergency communication systems. The critical element of a firefighting lift is that, unlike a normal lift, it should be designed to operate for a

long as is practicable in the event of a fire.

Firefighting Equipment

In the UK, it is a requirement that buildings with a floor more than 18 metres above or more than 10 metres below fire service vehicle access have a firefighting lift, helping firefighters to move more quickly and more easily through the building and allowing for the transportation of firefighting equipment across multiple floors.

The lift installation includes the lift car itself, the lift well and machinery area, along with the control and communications systems. While the Standard EN 81-72:2015 covers all aspects of firefighting lift design, e.g. minimum load; minimum lift car dimensions; speed of travel and specific design, there are also a range of factors that Newburn needed to consider when specifying the power generators for emergency use: robust and reliable back-up (secondary) power supply and the potential for water ingress.

Electrical Installations



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addressed at the design stage, including measures such as drainage channels at each landing entrance; ramping up of the floor at the lift's entrance; as well as methods of prevention of water build-up such as drains or draining pumps permanently installed and fitted outside the lift shaft.

There have been instances where water from hose lines has entered a lift well, causing malfunction to electrical installations such as door locks, lift car controls and communications systems, hence it is vital to both reduce the potential for water ingress in the first instance as well as to minimise the effects of water on lift operations to avoid hampering firefighting and evacuation procedures.

Fire-Protected Areas

Newburn Power Rental's power supplies, following the Standard, were specified and installed to the appropriate IP rating, to protect the electrical equipment against water ingress. Their generators, which varied from 20kVA up to 60kVA (dependent upon the lift motor sizes) are all installed in fire-protected areas, with fire-protected power cabling. Reliability of power supply – both the mains and the secondary sources – is clearly critical to the safe use of firefighting lifts and this, too, is referenced in the Standard.

Mark Henstock, managing director at Newburn Power Rental, comments on this project, “*We were approached to undertake this contract based on Newburn's reputation for reliability and for the weight we place on health and safety at all times*”

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Reliable Power Supply



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"The importance of secure and reliable power supply in an emergency can't be over-emphasised. We've worked on projects in the past where water ingress is an issue, so have a great deal of experience with managing pumping solutions and circuitry, as well as emergency backup supplies for a whole range of sectors."

"We have a committed workforce – in sales and specification for generators and ancillaries, as well as in the service and maintenance team. Clearly, both aspects are vital to ensuring that the correct equipment is installed in the first instance, and to making sure that it works efficiently and reliably, should it ever be needed. Since the first installation for this client, we have gone on to work with them on buildings in cities and towns across the North and we look forward to continuing this relationship."

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