

Policy Group -  
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Unit

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Dear Chris

## **STANDARDS FOR ACCESS LIFTS IN WIND TURBINES**

I agreed to write to clarify the current position in relation to design standards for access lifts in wind turbines, particularly with regards to the requirements of the Machinery Directive. My colleague Phil Papard delivered a presentation on this subject at BWEA30 (21<sup>st</sup> October 2008) - please let me know if you would like me to provide a copy of his slides. Phil Papard also recently assisted with discussions on this matter relating to one particular (offshore) installation. The way forward agreed at those discussions forms the basis of the position set out in this letter.

The presentation at BWEA30 set out the legal situation concerning the typical type of access lifts in use, i.e. those supplied with no landing doors/barriers but that are CE marked and accompanied with a Declaration of Conformity to EN 1808, *Safety requirements on suspended access equipment*. In particular, that such lifts supplied in this way are incomplete if they are to be used to give access to fixed landings as well as inspection access anywhere in the travel zone. The reason for this is that the lift is then one serving fixed landings and EN 1808 does not cover this application - such use requires the complete machine to include landing protection such as interlocked landing gates. This means the person incorporating the lift into the wind turbine must:

- o Design and build the interface (landing protection and any extra safety measures, such as to protect people working above or below the carrier);
- o Keep the technical file of this together with the Declarations of Conformity or Certificate of incorporation for the lift;
- o Arrange for the conformity of the system to be "approved" by a notified body (i.e. with a certificate of compliance issued);
- o CE mark the complete system;
- o Issue a Declaration of Conformity.

It may be possible for the lift supplier to facilitate this process, i.e. discussing the matter with their Notified Body so any modification and approval can be given. To do so they would need to approve the

design of the interface (landing guards etc) and would need to have some form of check that the installation is correct prior to issue of the CE mark. Phil Papard has undertaken to raise this matter with the Notified Bodies European working group with a view to agreeing a formal "*recommendation for use*" (RfU) on the design and installation needs of this type of lift serving wind turbines.

The long term solution to this problem is to design a wind turbine with an integral lift fully meeting the requirements of the Machinery Directive to a harmonised Standard that covers lifts serving fixed landings in wind turbines and similar structures. However we clearly must accept that both such a design and the development and approval of the necessary Standard will not occur in the medium term.

Therefore, in the medium term, HSE will raise this matter with BERR (Department for Business, Enterprise and Regulatory Reform), and with them raise it at the Machinery Directive WG at which the Notified Bodies attend. This route should provide an opportunity to agree a medium term solution to cover the period prior to the agreement of a Standard. HSE/BERR can push for such a solution to be developed as an RfU that is formally approved by the WG and applied across the EU. HSE accepts that this is a difficult area and that it may not be possible, within the current "*state of the art*", to fully meet all of the essential health and safety requirements (EHSRs) of the new Machinery Directive (2006/42/EC). The EHSRs should however be approached as far as possible, to produce a safe lift and system of work. (*The new Directive spells out what is implicit in the present Directive (98/37/EC); it comes into force on 29 December 2009*).

In the interim, i.e. until an RfU is agreed, we would have serious concerns if turbine technicians were to revert to using ladder access on towers fitted with an access lift. Use of an existing lift by trained and competent staff, taking appropriate protection measures, is likely to be a lower risk than using a vertical ladder with appropriate PPE. However, where they are not already fitted, lift barriers (guards) should be installed on landings; these should be of a type that either requires a tool for their removal or that are interlocked with the lift so they can only open when the lift is at the associated landing. Where such a barrier has to be removed this must only be done under close control by competent staff under a permit to work or similar system, to ensure other protection measures are in place to control the risk (e.g. of someone falling down the lift well or to being trapped or crushed by the lift). At the base of the tower, full height barriers or an equivalent protection measure should be fitted to control the crushing risk under the lift carrier.

Clearly, use of lifts that do not fully meet the requirements of the Machinery Directive will carry additional risks to those that do meet the Directive. To control residual risks any persons using lifts should be competent and fully trained. There should be a safe system of work, with appropriate monitoring and checking to ensure that it is being followed. It would be appropriate for turbine operators to discuss intended actions with the appropriate lift manufacturer.

I trust you find this summary helpful.

Yours sincerely

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