

HEALTH AND SAFETY DURING THE
CONSTRUCTION AND OPERATION OF
WIND TURBINES

AN HSE PERSPECTIVE

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HSE's ROLE

- To ensure health and safety during the construction and use of wind farms
- CDM and Work at Height Regulations
- Clients creating the right 'tone'
- Collaboration between all parties to achieve compliance and ensure that innovation becomes standard practice in the shortest possible time
- Consistency

PRINCIPAL HAZARDS

- Work at height
- Infrastructure development
- Lifting operations
- Electricity and moving/rotating equipment
- Remote sites / adverse weather conditions / difficult ground conditions

HOW CAN INCIDENTS BE AVOIDED?

- Make the most of all available expertise and experience
- Plan (Identify risks and controls as early as possible)
- Insist on innovation and best practice on the part of designers, manufacturers and contractors
- Adopt effective sequences of work during construction
- Adopt good management systems and supervision
- Consider the end user during the construction design phase

LEGAL REQUIREMENTS

- Design out risk
- Substitute with safer alternative
- Safe means of access and egress
- Safe working position preferred to fall arrest
- Consider and manage risks to health
- Reliance on ppe and provision of training as the only controls features low in prevention control hierarchy
- Ladders „ „

EXAMPLE – TOWER ACCESS

Advantages in using lifts:-

- Much easier access for people and equipment
- No recovery time required
- Minimises potential cardiovascular and MSD problems
- Easier rescue for the vast majority of likely scenarios
- Staff retention improved

ADVANTAGES (continued)

- Easier to control welfare/hygiene issues
- Reduces work at height risks by reducing the need to climb/descend and the need to work over open hatch in lower part of the nacelle
- Minimised management / supervisory / health monitoring /training requirements for site and visiting personnel

TOWER ACCESS continued

- Disadvantages:-
- Cost (economies of scale)
- Maintenance and running cost requirements

The advantages clearly outweigh the disadvantages - HSE inspectors will be taking a strong enforcement line on this particular issue

HSE's OBJECTIVES

- Ensure lifts are fitted to all turbines that have yet to be erected or that are in the process of being erected (where proven designs are available)
- Work with manufacturers to ensure that lifts are installed as standard
- Work with the industry to review new technology as it is developed and ensure that it is used to replace/enhance ladders as the only means of access in smaller or existing turbines