

# **Chapter 10**

## **Health and Safety Issues**

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### The Wind Turbines

Modern wind turbines are designed and built to established safety standards and have an excellent safety record. As such, there are no statutory guidelines recommending minimum separation distances from public footpaths, bridle-paths or roads.

Turbine control and monitoring systems operate with several levels of redundancy to protect the plant from damage. In the case of faults arising, including over-speed of the blades, over-power production or loss of grid connection, turbines shut down automatically via fail safe braking mechanisms. In addition, turbines are fitted with vibration sensors so that if a blade was damaged, or unbalanced due to the formation of ice on blades, the turbine would automatically shut down.

### The Construction and Decommissioning Phases

Throughout the construction phase of the development the relevant statutory requirements would be adhered to including CDM Regulations. All potentially hazardous areas would be fenced off and all unattended machinery would be stored in the temporary site compound or immobilised to prevent unauthorised use. The appropriate bunding would be incorporated to limit the horizontal spread of any spillage and an impervious membrane would be located within the bund to prevent leaching of potentially hazardous materials into the ground.

### The Operational Phase

Modern wind turbines are designed to operate to high standards of safety and reliability, and have an excellent safety record. The wind turbine type proposed would carry certification by an internationally renowned organisation, such as Germanischer Lloyd.

Of the tens of thousands of wind turbines that are operating world-wide, there has been no recorded incident of death or injury to members of the public passing close to or underneath them. It may therefore be concluded that the

risk to public safety is virtually non-existent. In addition, landowners would be able to safely farm the land and stock would be able to graze right up to the turbine bases.

Furthermore, paragraph 32 of the Annex on Wind Energy in PPG 22<sup>1</sup> comments *“The minimum desirable distance between wind turbines and occupied buildings calculated on the basis of expected noise levels and visual impact will always be greater than that necessary to meet safety requirements.”*

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**References:**

<sup>1</sup> Department of the Environment and the Welsh Office (1993) “Planning Policy Guidance Note: Renewable Energy” (London: HMSO).