

Statement accompanying HSE's publication of research report on risk from wind turbines

The research report 'Study and Development of a Methodology for the Estimation of the Risk and Harm to Persons from Wind Turbines' was commissioned by the Health and Safety Executive (HSE) to help develop its knowledge and inform its thinking on risks from large onshore wind turbines. It should also be useful for other stakeholders in the field.

This report drew data from HSE incident reports, trade association and published papers (UK and internationally) and developed a methodology for the assessment of harm to people from wind turbine failures. It recognised the range of safety features installed on most modern utility scale wind turbines which have the potential to detect incipient problems and take the wind turbine out of service before blade detachment or fragmentation occurs. Most wind turbines have fire suppression equipment inside the nacelle that is activated in the event of fire. While the case study modelled in the report was used to determine typical risks of large turbines, it is not possible to use one example to generalise for every likely development scenario. The case study did show however, that the risk to the public from failure of the turbine, which was sited in accordance with planning guidelines, was very low in comparison with other risks faced in everyday life. The current planning guidelines are those made available by Government to LPAs, for example in England these are the National Planning Policy Framework and Planning for Renewable Energy: A Companion Guide to PPS22.

The content of the report, including any opinions and/ or conclusions expressed, are those of the authors alone and do not necessarily reflect HSE policy.

The research was undertaken by MMI Engineering Ltd.

Background

HSE is one of the regulators for onshore wind turbines, overseeing health and safety aspects once the site becomes a workplace. Other parts of Government are responsible for legislation on product safety (ie the wind turbine itself). The land use planning process considers whether a proposed turbine is an acceptable use of the site in question in the proposed location.

HSE's statutory responsibilities kick-in when the site becomes a workplace and its remit includes both workers and those affected by work activities.

HSE may be asked for advice if wind turbines are proposed within the consultation distances of major hazard sites, explosives sites or hazardous pipelines but such applications would not normally lead to any matters being raised by HSE.

HSE is a statutory consultee for National Significant Infrastructure Projects (NSIPs) in England and Wales. This includes wind turbines with a generating capacity of more than 50MW.