

REQUIREMENTS FOR THE SITING OF WIND TURBINES CLOSE TO PIPELINES CONTAINING HAZARDOUS FLUIDS

Pipeline Operators are receiving increasing numbers of applications from developers to site wind turbines in the vicinity of pipelines containing hazardous fluids. In response to this, a detailed technical study has been undertaken to identify the potential risks to these pipelines from wind turbines.

The study was based on data collected for wind farms in the UK and used a methodology that has been developed in the Netherlands. The study assessed all the potential failure modes that could be a potential threat to the integrity of a pipeline, including blade failure; fall of the nacelle or rotor and toppling of the mast.



Based on the study, the appropriate exclusion zone (distance from base of the wind turbine mast to the edge of the pipeline) has been identified as 1.5 times the turbine mast height.

Further work is ongoing to investigate whether there are any additional pipeline protection measures that could be taken to reduce this exclusion zone. Until this work is completed, the 1.5 times the mast height exclusion zone should be observed.