

**PROPOSED WINDFARM AT SPRING FARM RIDGE, HELMDON/GREATWORTH,  
NORTHAMPTONSHIRE (SOUTH NORTHANTS COUNCIL PLANNING APPLICATION  
S/2010/1437/MAF)**

**PUBLIC INQUIRY INTO APPEAL AGAINST REFUSAL OF PLANNING PERMISSION  
APP/Z2830/A/11/2165035**

**STATEMENT BY RICHARD CHAMBERLAYNE OF CHURCH STREET, HELMDON**

**Wind turbines and public safety.**

Broadview summarise their dissertation on Health and Safety with the statement "*effects on public safety ..are considered to be Negligible and not Significant*".

No accident statistics are given to back up this claim.

I contend that the statement is untrue. The possible risks (the chances of injury) may be relatively small but they are Very Significant.

The premise for this stated policy, seemingly common in the industry, is that to date there is no recorded incident of anyone having been injured or killed so turbines must be safe.

This is false logic. It simply means that such a tragedy has not happened **yet**.

The Internet is a source of much information relating to wind turbine malfunction. The most prolific website is that operated by the Caithness Windfarm Information Forum (CWIF) who has logged incidents over many years. As of 31 March 2012, they record 234 incidents of blade failure and 34 incidents of "ice throw". In Germany blade failure resulting in pieces 20 metres long flying over 150 metres and pieces 7metres in length over 200 metres. Debris has been recorded over 1.3 Km away and have been thrown over public roads and through brick walls. These recorded incidents will be the tip of the iceberg. Only when the public is involved will anything be known. The industry is not talking. I have tried to get information from manufacturers and insurers in respect of blade failure – they refuse to talk – a sure sign that all is not well.

In the UK later recorded incidents include the following:

March 2009	Lincolnshire	Blade hub failure
March 2010	Renfrewshire	Blade snapped off.
Dec 2011	Shetland	Blades and masts broken.
Jan 2012	Derbyshire	Blades snapped off.
	Rhue Stoer	Blade failure.
	Huddersfield	Blade failure.

A look at [www.auchencorth.org.uk/documents](http://www.auchencorth.org.uk/documents) yields a list of European failures. An extract is attached. The majority of failures are in Germany because they have a large number of turbines. The message is clear – these machines fail with alarming frequency despite what the industry would have you believe.

The problem is that the turbines look so benign revolving gently against the sky. But consider: Rotating at 15 r.p.m the tip speed of such blades is 150 m.p.h. Typically blades weigh around 8 tonnes each and the rotor hub assembly 41 tonnes. This represents a lot of pent up energy even before they overspeed in high winds.

The technological envelope is being pushed as blades get larger. Manufacturers are wrestling with new materials and trying to improve fabrication techniques in an effort to make the blades sufficiently accurate, bigger and lighter but as cheap as possible. In such an environment safety cannot be guaranteed. On these new larger blades we have yet to see the effect of factors such as age, weather (including lightning strike) and fatigue.

Also remember the worst accidents happen when the safety systems fail – and they do.

In many other countries exclusion zones have been mandated to protect the public. Until the industry can guarantee safety, which is years away (perhaps never), we should do the same. Where countries have such a limit 1.5 Km is the norm.

Consider what is within 1.5 Km of these machines, at this proposed site at Spring Farm Ridge, the danger is obvious:

The whole of Greatworth, part of Helmdon (including the school), numerous other dwellings, a 4 km section of the busy and dangerous B4525, and around 19 km. of footpaths and bridleway are all at risk.

It also seems that members of the public are going to drive military vehicles around the turbines. You really could not make it up.

**Please stop this madness before someone is seriously hurt or killed.**

Attached: one page extract from auchencorth data.

Fault	Year	Location	Report
Blade Failure	1992	Delabole, Cornwall	Blades damaged by lightning
Blade Failure	1993	Cemmaes, Wales	Blade parts thrown over 400m
Blade Failure	1995	Rudersdorf, Germany	1.1m long piece of blade landed next to childrens nursery
Blade Failure	1995	Tanifa, Spain	2 separate occurrences of blades breaking off
Blade Failure	1995	Greece	Cracked blades
Blade Failure	1996	East Friesland, Holland	Parts of rotor blade reported landing in peoples garden
Blade Failure	1996	Eesmond, Holland	2 blade failures in September
Blade Failure	1996	Schlewsig-Flensburg, Germany	Turbine blades broke and fell. Pieces landed on road and damaged adjacent turbine
Blade Failure	1997	Nordstrand, Germany	2 of 3 blades came off. Parts flew over 300m, across a road
Blade Failure	1997	Waldaubach, Germany	Blade flew off. Parts found 400m to 500m away. Parts landed in summer house
Blade Failure	1997	Kaiser Wilhelm Koog, Germany	Blade parts flew up to 500m. 1 person killed
Blade Failure	1997	Wanderup, Germany	66% of blade flew 50m. Road only 20m away
Blade Failure	1997	Taff Ely, Wales	Lightning strike
Blade Failure	1997	Four Burrows, Cornwall	Lightning strike
Blade Failure	1998	Goonhilly, Cornwall	Lightning strike
Blade Failure	1999	Lower Saxony, Germany	Blade parts blown off. Parts found 100m away
Blade Failure	1999	Brandenburg, Germany	At least 20 separate blade parts up to 1m long, blown more than 300m
Blade Failure	1999	Hachenburg, Germany	Blade parts flew almost 40m onto heavily used footpath. lightning strike
Blade Failure	1999	Burmonken, Germany	Blade broke. Parts flew off
Blade Failure	1999	Lower Saxony, Germany	Frozen blade detached and disintegrated. Parts flew 100m
Blade Failure	1999	Vijnaldum, Holland	lightning strike destroyed turbine blades
Blade Failure	1999	Lelystad, Holland	Blades from 4 turbines badly damaged by lightning
Blade Failure	1999	Seglaxera, Sweden	Blade parts flew almost 150m
Blade Failure	1999	Sustrum, Germany	7m long blade section flew more than 200m and 10 other pieces up to 1m long were recovered
Blade Failure	1999	Allstedt, Germany	2 blade parts more than 20m long blown off and flew more than 150m
Blade Failure	1999	Blankenheim, Germany	Blade fell to the ground
Blade Failure	1999	Germany	lightning strike damaged blades
Blade Failure	1999	Schleswig-Holstein, Germany	Brake failure. Turbine turning 4x normal speed. 60 residents within 500m evacuated
Blade Failure	1999	Cuxhahn, Germany	Blade blown off. Parts flew 200m
Blade Failure	1999	Zennhusen, Germany	2 turbines damaged by lightning. One lost a blade and 2 others shattered
Blade Failure	1999	Lower Saxony, Germany	Blade destroyed by lightning
Blade Failure	1999	Stoffin, Germany	Blade bent, hit tower. Debris over 50m circle
Blade Failure	1999	Leewarden, Holland	Serious damage to blades following lightning strike
Blade Failure	2000	Samsø, Denmark	Complete rotor and housing broken. 1 blade piece went through a window and landed in swimming pool. Another piece was thrown 600m
Blade Failure	2000	Lower Saxony, Germany	Storm tore nacell cover off. 1 blade flew 150m to 200m hitting factory and house, piercing 24cm thick stone wall, timber floor and roof. Turbines subsequently shut down following court ruling on safety grounds.
Blade Failure	2000	Lower Saxony, Germany	21m blade section weighing 2t flew approx 100m
Blade Failure	2001	Lower Saxony, Germany	33m blade piece broke off and flew 100m
Blade Failure	2001	Lower Saxony, Germany	33m blade piece weighing 4t broke off and fell to ground
Blade Failure	2001	Hessen, Germany	4m x 1m blade piece broke off and flew 150m
Blade Failure	2001	Bad Doberan, Germany	Turbine blade broke off. Nearby motorway closed off
Blade Failure	2002	Blyth, Northumberland	Broken blade on UK first offshore turbine
Blade Failure	2002	Lower Saxony, Germany	Blade shattered with an audible crack. Debris scattered across surrounding fields
Blade Failure	2002	Wormhout, France	Blade torn off during a storm
Blade Failure	2002	Aachen, Germany	Turbine blade torn off during storm. 7.5m section flew 40m
Blade Failure	2002	Westfalia, Germany	Loss of blade. 30m long section weighing 5.5t fell off. Smaller blade parts covered an area to 400m from tower
Blade Failure	2002	Westfalia, Germany	lightning strike broke off 1m of blade
Blade Failure	2002	Saxony, Germany	Technical defect led to blade damage
Blade Failure	2002	Westfalia, Germany	Blade broke off during storm
Blade Failure	2002	Westfalia, Germany	Blade bent and fell to ground. Local farm evacuated
Blade Failure	2002	Kaiserslautern, Germany	Blade broke off due to storm damage
Blade Failure	2002	Brandenburg, Germany	2 of 3 turbine blades tore off in a storm and thrown "far"
Blade Failure	2002	Westfalia, Germany	Blade bent then broke in a storm
Blade Failure	2002	Austria	Turbine blades damaged during storm
Blade Failure	2002	Esbjerg, Denmark	3 blades experienced damage during commissioning
Blade Failure	2003	Aude, France	3 blades from 3 separate turbines broke off during storm. 7 out of 10 turbines on this site were shut down and dismantled
Blade Failure	2003	Lower Saxony, Germany	Lightning damage. Blade parts scattered over 150m
Blade Failure	2003	Lower Saxony, Germany	Lightning strike broke off blade tips
Blade Failure	2003	Rheinland-Pfalz, Germany	Lightning strike to 2 turbines damaging multiple blades on each
Blade Failure	2003	Saxony, Germany	Lightning damage to blade tips
Blade Failure	2003	Westfalia, Germany	Lightning damage to blade
Blade Failure	2003	Westfalia, Germany	37m long blade section bent in storm
Blade Failure	2003	Saxony, Germany	Lightning strike destroyed blade, started fire and damaged turbine housing. 1 blade bent. Another fell off.
Blade Failure	2003	Boulogne sur Mer, France	Blade parts weighing several tons fell into an area used by fishermen and walkers
Blade Failure	2004	East Belgium	Lightning strike led to exploding blade
Blade Failure	2004	Zeeland, Holland	3 blades exploded due to lightning strike
Blade Failure	2004	Lower Saxony, Germany	2t piece of blade broke off and flew 66m
Blade Failure	2004	Hessen, Germany	Blades torn off in a storm
Blade Failure	2004	Saxony, Germany	10m section of blade flew 20m. 6m piece flew 40m. Smaller pieces flew out to 200m. Suspected lightning damage a week earlier.
Blade Failure	2004	Saxony, Germany	Rotor bent during storm, some pieces flew off
Blade Failure	2004	Saxony, Germany	10m blade section broke off
Blade Failure	2004	Lower Saxony, Germany	Lightning strike destroyed blades close to motorway
Blade Failure	2004	Rheinland-Pfalz, Germany	Broken rotor
Blade Failure	2004	Brittany, France	Blade bent and damaged tower
Blade Failure	2004	Brittany, France	2nd incident in 10 days. 2.5m long pieces of blade found in field
Blade Failure	2004	Zeebrugge, Belgium	3t rotor blade became detached and flew 100m landing not far from nearby gas terminal