Wind Turbine Amplitude Modulation & Planning Control Study

Work Package 6.2 – Control of AM noise without an AM planning condition using Statutory Nuisance.

Author: Bev Gray

© 2015 Bev Gray & Chris Heaton-Harris. No part of this Study may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, scanning, or otherwise except through the prior written permission of the authors. Limit of liability: While the authors have used their best efforts in preparing this Study, they make no representations or warranties with respect to the accuracy or completeness of its contents and specifically disclaim any implied warranties of merchantability or fitness for a particular purpose. The advice and strategies contained herein may not be suitable for your situation.
Objectives:

- Review EAM noise nuisance complaints procedures and the difficulties of applying Statutory Nuisance by local authority officers.
- Proposals to ensure a more effective method of EAM control than the existing statutory nuisance.

This work package (WP) reviews from a wind farm neighbour perspective the practical experiences and causal effects of Statutory Nuisance (SN) laws when used as a means of protection from Excessive Amplitude Modulation (EAM) for populations living within 2km of existing wind turbines. This WP6.2 compliments WP6.1 – legal review by R. Cowan.

A large number of local authorities with wind farms in their districts are experiencing noise complaints from residents as described at WP3.1. These councils are finding they are experiencing difficulty in using SN as a means of pursuing these complaints. This is due to the lack of effective procedures, uncertainty over the response of the courts to noise from renewable energy and the effect of planning guidance on nuisance evaluation in the minds of some Council officers. Additionally, the lack of facility to collect the evidence needed to pursue the complaints with the wind farm operators coupled with limited resources in terms of expertise and finance are also hampering noise complaint resolution.
Contents

1. Executive Summary
2. Statutory Nuisance and planning appeals
3. A local councils\(^1\) guidance on nuisance
4. Monitoring AM noise to collect noise evidence
5. Appendix - Local council’s guidance on nuisance

Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM</td>
<td>Amplitude Modulation (of ‘sound’ pressure waves)</td>
</tr>
<tr>
<td>CF</td>
<td>Cotton Farm (wind farm)</td>
</tr>
<tr>
<td>CFAG</td>
<td>Cotton Farm Action Group</td>
</tr>
<tr>
<td>CFRA</td>
<td>Cotton Farm Residents Association</td>
</tr>
<tr>
<td>DEFRA</td>
<td>Department of Environment, Food and Rural Affairs.</td>
</tr>
<tr>
<td>EAM</td>
<td>Excessive Amplitude Modulation</td>
</tr>
<tr>
<td>EH</td>
<td>Environmental Health (department)</td>
</tr>
<tr>
<td>EHO</td>
<td>Environmental Health Officer</td>
</tr>
<tr>
<td>ETSU</td>
<td>Energy Technology Support Unit. The Working Group on Noise from Wind Turbines, (ETSU-R-97) September 1996. The Assessment and Rating of Noise from Wind Farms</td>
</tr>
<tr>
<td>HDC</td>
<td>Huntingdon District Council</td>
</tr>
<tr>
<td>LPA</td>
<td>Local Planning Authority</td>
</tr>
<tr>
<td>PINS</td>
<td>Planning Inspectorate</td>
</tr>
<tr>
<td>SCDC</td>
<td>South Cambridgeshire District Council</td>
</tr>
<tr>
<td>SN</td>
<td>Statutory Nuisance</td>
</tr>
<tr>
<td>WF</td>
<td>Wind Farm</td>
</tr>
<tr>
<td>WT</td>
<td>Wind Turbine</td>
</tr>
<tr>
<td>WP</td>
<td>Work Package</td>
</tr>
</tbody>
</table>

\(^1\) South Cambridgeshire District Council (SCDC) in this case. Other councils’ guidance notes would be similar. See appendix for the complete document.
1. Executive Summary

1. A wind farm AM planning condition, like the Den Brook condition, is very often requested by local authorities and interested Rule 6 parties as a means of protecting local communities living near wind farms from the modulating or ‘thumping’ sounds coming from the rotating turbine blades. This thumping sound can be especially noticeable at night.

2. Statutory Nuisance (SN), the wind industry developers’ recommended alternative to a legal (AM) planning condition, such as the Den Brook condition, is often used as a reason not to provide a planning control for this modulating noise. This is usually agreed to by the Planning Inspectors adjudicating wind farm appeals despite them being separate legislative regimes and there being a lack of expertise within the Inspectorate regarding the limitations of statutory nuisance (SN). Statutory Nuisance does not offer the same protection in law as a clearly defined (AM) planning condition and is subject to many hurdles not found with planning procedures. Most wind farm approvals have no mention of AM noise controls or Statutory Nuisance at all. These local populations then have no effective protection from Excessive AM noise emissions.

3. Activation of SN provisions is normally instigated by a complaint to the local authority, although there is a duty to inspect their area for nuisances. Theoretically a local authority aware of nuisance problems should inspect to assess if they exist, but this is rare. Furthermore, if residents acquiesce to the noise it is not a nuisance and almost always a complaint is required to trigger action. Local authorities will also not act unless a complaint is made on what they term a ‘formal’ basis. Anonymous complaints are not normally acted upon as impact involves assessing levels inside dwellings, especially in relation to night time. The process places onus on the residents to complain and endure the additional interruptions and impact upon their lives of making a complaint. This can be substantial and can potentially blight theirs and their neighbour’s property since there is a legal duty to reveal such complaints if they subsequently seek to sell.

4. In the authors view this process is the wrong way round. It should be a legal requirement for wind farm operators to ensure compliance, and that they are not causing unreasonable impact within communities. They should be able to prove all noise (ETSU dB levels, EAM and LFN) generated by their turbines is kept below agreed levels which are known to be harmful or cause annoyance. WF operators effectively introduce the noise pollution and profit from the activity. It is not unreasonable that they should be legally obliged to ensure they do so without detriment or harm to others.

5. In the event of public developments such as new road and rail systems, compensation procedures developed under the Land Compensation Act are in place to help protect those affected. This is not triggered with wind farms and private development despite its objective of providing a national energy resource. This means a minority suffer without protection for the claimed benefits of the majority.

6. In the absence of other forms of national protection it falls to the local authorities to ensure they have the facility and ability to monitor these noise levels to ensure and prove compliance by the turbine operators and confirm (or not), in the case of noise complaints
from the community, the validity of any complaint by immediate reference to the recorded evidence. Currently any general noise compliance checks are passed to the operators to self-regulate and then inform the planning authority of their results. Reducing energy production in order to reduce noise has significant financial impact for operators. There should be no reason for regulators to not directly check compliance and put in place the resources to enable independent verification.

7. The way SN is currently being used as a means of protection of local communities from wind farm noise should cause serious concern to legislators and organisations using this legislation, at both a local and national level. Statutory Nuisance is described as a ‘summary procedure’ which indicates it should provide a quick remedy. This may be feasible with simple issues such as excessive music noise from the house next door but does not seem to work in complex cases involving large financial investments where the pressure to appeal and fight any action is substantial. The SN process can take many years in practice. In the case of Cotton Farm Wind Farm in Cambridgeshire, investigations of nuisance complaints continue for more than two years after they first started without any indication whether the local authorities are minded to take action. If they do, then several years of process are likely to follow. Once this process is exhausted there is a risk of a fine not greater than £20,000 to the operator which is similar to the likely income in one week from one turbine. It is therefore not a deterrent in any event.

8. If a Council were successful in serving a noise abatement notice and this was upheld by the courts, perhaps several years later, then any prosecution faces a risk of the wind farm changing ownership. This would mean the whole process has to start all over again from the beginning. A wind farm operator could continue this for many years.

9. The use of SN in place of an AM planning condition seems to have, in the author’s opinion, the singular effect of ensuring the wind farm operators have no legal responsibility in controlling wind turbine AM noise output. Also they seem to have no responsibility to monitor noise output, or to prove absence of nuisance / compliance in case of complaints. Nor do they have the legal responsibility for ensuring the AM noise keeps below the 3dB peak to trough maximum limit identified in research as causing adverse impact. The wind industry’s noise guidance, ETSU, has allowed for a small degree of AM of up to 3dB when close to turbines (50m) which diminishes further away. It is clear any AM greater than this or further from the turbines, is excessive and is not covered by the noise controls. This minimal inclusion in ETSU of AM close to the turbines does not cover AM at longer distances.

10. Wind farms are not currently monitored routinely for noise and no recordings are made. Therefore it is impossible for any action under Statutory Nuisance to be implemented by any local authority because there is no actual evidence for the Council to act on or use. Even if a local authority did serve notice on operators of their view of nuisance and the notice was subsequently upheld by the courts, prosecution then has to follow this process; and there is no requirement on the Council to prosecute for a breach. This is probably one of the reasons why there has been no legal redress under SN despite country wide complaints about wind farm noise. Whilst theoretically there is protection, in practice none exists. It is akin to a parking fine being much smaller than the parking fee. It is cheaper to take the fine
than pay for parking in the same way it is much cheaper to fight statutory nuisance action and continue operating risking any fine than addressing the problem. The courts have been clear other remedies will not be considered until the abatement notice route and prosecution has been exhausted.

11. WP6.1 examines the legal and practical use of Statutory Nuisance with regards to its use with wind farms. Its conclusion argues that the use of Statutory Nuisance, in place of an AM planning condition, such as the Den Brook AM condition, only protects the wind farm operators’ investments at the expense and possible health of the communities living near wind farms. This WP6.2, looks at some of the practical problems of statutory nuisance in the community. The conclusion of the WP6 package as a whole can be summed up by this comment:-

12. It is essential wind farm developers and operators are held to account for their activities by the use of a fair, legal, easy to use and, above all, a provable AM Planning Condition that protects communities.
2. Statutory Nuisance and Planning Appeals

13. Statutory Nuisance, as many communities have been advised, can only in a practical sense be used after a noise complaint is made to the local council's Environmental Health Officer (EHO). In practice this does not to work. A complaint is only actioned if the EHO gathers, in his or her opinion, sufficient evidence to be satisfied that a legal nuisance arises. The council are obliged to investigate as a matter of law and, any investigation is likely to be subject to legal opinion with the council as the body ultimately deciding. The test is one of satisfaction. If they are satisfied there is an actionable nuisance and no defences are applicable then they are obliged to serve a noise abatement notice.

14. If an AM planning condition that the LPA or community Rule 6 Party had asked for was applied, it would mandate the operators not to produce EAM. Once proved, such breaches could be controlled by immediate and clearly defined enforcement action by the EHO/LPA under Town and Country Planning Act provisions. It would also provide supporting information that there was unreasonable use of land and that there was a Statutory Nuisance.

15. Many residents living up to 2km (and sometimes more) from turbines have heard and reported noise from the local wind farm. There have been many complaints reported from wind farms up and down the country, as shown in the responses to Chris Heaton-Harris’s Aug 2014 letter to local authorities.\(^2\) Independent research by MAS, an acoustics company, is showing this number could be a lot larger.\(^3\) This is based on excessive AM noise outputs from wind farms where councils did not respond, or did not advise on, known noise problems in their areas.

16. Residents living near the Cotton Farm Wind Farm (CFWF), in Cambridgeshire, discussed in more detail in WP9, have experienced frequent EAM noise since completion of the wind farm in January 2013. They have regularly complained to the local EHO’s. Despite several hundred reported and logged EAM noise complaints\(^4\) over two and half years, the EHO’s of the two local authorities involved\(^5\) have not, as yet, carried out their perceived ‘Duty of Care’ to the community by, for example, seeking a partial shutdown of the turbines when EAM occurs by using an abatement notice.

17. To place this in perspective we understand the test of nuisance is one of impact upon comfort and convenience that is unreasonable as judged by the average person (historically described as the ‘man on the Clapham Omnibus’ test). It is also well understood that complaining is a coping strategy for a minority of people, and most people do not complain even when noise is unbearable. Studies by DEFRA and the WHO have shown this to be true.

18. For this matter not to be an actionable nuisance it would mean all the complainants must be considered unreasonable people. Residents are unaware of any evidence to

\(^2\) See WP3.1
\(^3\) See WP3.1 page 11 map
\(^4\) See WP9 appendix 3
\(^5\) Huntingdon DC and South Cambridgeshire DC.
support such a contention and it would be difficult to conclude that the wider communities around wind farms are not made up of average people or, somehow, all the people around wind farms who complain about the noise are, for some inexplicable reason, unlike average people.

19. Reasons why a decision on statutory nuisance is proving difficult for all local authorities will be considered later in section 3.

Summary of section 2

20. There has been an extreme reluctance by council authorities to use Statutory Nuisance when complaints have been made to them. Discussions by the author with councillors and council officers indicate councils need to be very sure of their legal position before using their powers to stop the turbines despite the process requiring no more than them being satisfied, a test of the balance of probabilities. The cost in ‘loss of income’ claims and the legal cost of using the imprecise guidance under SN are, the author has been advised, a severe deterrent. It is speculated that the cost of a lengthy and expensive legal fight lasting many years with no clear evidence of a resolution with the substantial additional burden on the resources of the authority is a greater deterrent. This is especially relevant when there is no practical challenge over any conclusion running contrary to the community complaints.

21. EAM, the ‘whoomping’ noise people hear and complain about, especially at night, should have its own planning condition since this provides a way of measuring compliance unlike Statutory Nuisance which does not. Having such a planning condition would give a clear and proactive mandate for local authorities to work with in the case of EAM complaints. It also ensures turbine operators are aware of their responsibilities regarding noise emissions. The only reference to AM in ETSU is based on a low level of AM noise close to turbines that is described as 2-3dB at about 50m and diminishing with distance. The modulating noise known as AM, which is annoying people living up to 1500 metres or more, is not covered by the ETSU noise description and consequently is not covered by the ETSU noise limits.

22. The trigger for noise problems, like excessive AM noise (EAM), should not be left as a passive uncontrolled factor relying on an imprecise law like Statutory Nuisance which is only activated practically, and supposedly controlled, by householder complaints after a wind farm becomes operational. Control should not be reactive in any event but proactive in the same way as any other public health protection measures. It should not be left to a system which has many layers of appeal and challenge and that in practice takes many years to resolve.
3. A Local Councils\textsuperscript{6} Guidance on Nuisance

23. It is well documented there have been many complaints by local people about excessive noise originating from wind farms across the whole country over a number of years. Salford University acknowledged this back in 2007, although it is also now recognised that this study dramatically understated the incidence of EAM.\textsuperscript{7} Despite the widespread and recognised problem, no case has, so far, been pursued via Statutory Nuisance action by Councils\textsuperscript{8}. Why is this the case?

24. DEFRA, who is responsible for advising and legislating on noise in the environment, did, in April 2011, produce a document titled ‘Wind Farm Noise Statutory Nuisance Complaint Methodology’. This is a reference document for local authorities to use in cases of wind turbine noise complaints. The effectiveness of the DEFRA document can be summarised simply by stating, among many other things, it is essential to gather evidence of noise and other localised evidence including meteorological data before action is taken under SN. It does not, however, appear to advise the local authorities on how this should be done, or indicate what noise is acceptable or unacceptable. The document has extensive discursive sections which only serve to complicate an already complex subject, including parts which can be cherry picked to either support or undermine a view of nuisance depending how it was argued. At best it provides obfuscation. It does not provide practical advice how to approach and gather evidence on this complex matter and how to formulate notices etc., if a conclusion is reached that a nuisance exists.

25. There does not seem to be any practical assistance to local authority officers in resolving the problem of applying Statutory Nuisance in cases of noise complaints, and as such wind farm operators must be aware of these difficulties the officers face. In a fair world the wind industry should be aware that it is in its own interests to have a provable (AM) planning condition to not only protect their investment but also to protect nearby communities. Currently they are unfairly protected by the virtual impossibility of local authorities’ SN powers to address these problems.

26. In the authors opinion the use of SN in place of an AM planning condition has the unfortunate side effect (on the communities) of ensuring the wind farm operators have absolutely no responsibility regarding control of wind turbines AM noise output.

27. This means they do not have responsibility for the monitoring of their AM noise output or for ensuring the AM noise keeps below a recognised acceptable 3dB peak to trough limit.

---

\textsuperscript{6} South Cambridgeshire District Council (SCDC) in this case. Other councils’ guidance notes would be similar. See appendix

\textsuperscript{7} Research into Aerodynamic Modulation of Wind Turbine Noise. Salford University for DEFRA. 2007.

\textsuperscript{8} There are 4 cases where small individual turbines have been removed due actions by local authorities. One went to court when the notice was appealed but upheld. The only actions against large wind farms has been by private individuals but these too are rare. See WP3.1
at extended distances. It seems that so long as the average dB readings fall within the ETSU LA90 limits, which by design ignore the contribution from the peaks of noise, then the peaks and troughs of AM noise can be at any level of modulation. If these exceed the agreed and accepted 3dB level the ‘Compliance Measurements’ are incapable of proving this. Without continuous monitoring who can prove it?

28. In the author’s opinion, the responsibility of EAM control is being put, very unfairly, onto the local community and very especially onto the individual householder.

29. There are no guidelines for local residents to follow and they are not qualified or experienced enough to say what level of AM noise is acceptable or not acceptable. There is very limited guidance from local authorities. It is impossible to gauge when EAM noise is greater or less than the 3dB threshold. It is simply an annoying, irregular ‘whoomping’ or thumping sound pulse every second or so as far as the individual is concerned.

30. Usually complaints about EAM lead to checks on the ETSU noise limits, and these do not cover EAM. This process can take a year or more and then when it is shown the wind farm complies with average noise limits the resident is told the wind farm complies with the planning control, the implication is that the EAM is noise acceptable. At this point complainants would be suffering ‘complaint fatigue’.

31. If the AM output of the wind farm is not controlled by the operator under a planning condition, it should be positively and actively monitored and recorded in real time by the Environmental Health Officers (EHO’s) in a permanent and positive manner. Currently there is no mandate for EHOs’ to monitor noise output from wind farms under their ‘Duty of Care’ responsibilities. Nor are they being instructed to do so by the authority giving the ‘approval’ for a wind farm to be built. This applies to both nuisance and ETSU compliance.

32. This suggests that when conditions to control AM are avoided and inspectors, or the planning committee/decision panel, conclude residents can rely on SN instead when a planning approval for a WF is given, then it seems reasonable to the author that the responsibility of monitoring the noise output should be specifically addressed by the authorising authority and this should be done by actively stating which organisation is responsible for monitoring for AM noise, ETSU decibel level compliance and possibly LFN noise outputs. This must include unrestricted access by the council officers and communities to all meteorological and SCADA data from the wind turbines.

33. The designated authority should be held to account if this is not done. For this to be effective all data sources should be fully transparent and available for analysis by all parties in the community in cases of EAM or any other (noise) complaint. Currently the wind farm operators investigate themselves and mainly retain their data, which is only being released if it was obtained by the planning authority in the process and then obtained via Freedom of

---

9 Wind farm acousticians finally accepted in 2014 following more than 9 years denial since a report by Malcolm Hayes to the DTI that where the modulation depth exceeds 2-3dB adverse effects arise.

10 This is exactly what happened at Cotton Farm. See HMP's Cotton Farm wind turbines: Phase 1 noise limit compliance assessment. It specifically stated ‘tonal recordings (AM) were not taken’.
Information powers. As well as the complexities, this is not a quick process and is reliant of the planning authority acquiring the raw data used to decide on the wind farm compliance.

34. EAM noise, when it does occur, becomes an immediate problem for local people and needs an immediate and proactive response. EAM can last just a few minutes or for many hours. Due to many causal variables including wind shear, wind speed and direction, location of a receptor relative to the turbines, the likely occurrence of EAM, is unpredictable at any one location. These occurrences need to be recorded for scrutiny and evidence in case of complaint or dispute when they actually happen. This would be fair on the complainant, the local authority officers and on the wind farm operator.

35. Currently Statutory Nuisance can only be activated and processed by EHOs’ employed by local councils generally after a complaint is made by a member of the public. Even then it is reliant on long term noise impact logging and much disruption of normal living. For those averse to complaining there is no redress or protection. It is a well-established fact that anyone complaining of such a problem must reveal it at the time of sale of their property. This means anyone who wants to seek resolution of wind farm noise problems will automatically devalue their property in order to achieve that. This is unreasonable.

36. This approach is far too late and unfair for people who have had disturbed nights or who may have, over a period of time, developed health problems possibly caused by turbine noise, stress and loss of sleep.

37. Any EAM noise complaint made by members of the public and processed through the tortuous and long winded process of Statutory Nuisance proves this law, a reactive law, is also an extremely blunt and largely ineffective law when used against wind farms. This does raise the concern that Statutory Nuisance, not being a proactive law, is unfit for purpose as a control for such a dynamic noise nuisance as EAM. There is growing evidence some Planning Inspectors, at appeals, are concerned at the use of Statutory Nuisance a subject that they have no training or expertise in. Also, when people are being annoyed and upset by noise, especially at night when the EAM effect is usually at its worse, they need an immediate reaction from the authorities. A proactive solution is needed to restore their ability to sleep.

38. There is also an acknowledged reluctance by local authority officers to pursue any complaint under Statutory Nuisance, especially where high value commercial interests are involved. Serving an abatement notice, defending it against appeals at all of the three stages allowed and possibly more followed by subsequent proceedings for a breach of the notice some years later would be a long drawn out affair and can be very expensive for local authorities to finance. This perceived lack of will by the local authorities to take on wind farm operators with turbines known to be causing EAM noise, (which, the author is assured, is probably most of them) will also reduce any expectations of protection or satisfaction from those suffering the effects of wind farm EAM. When the maximum potential fine for a

11 Stigwood, Large & Stigwood paper. Inter Noise. Melbourne November 2014 shows EAM noise varies from wind farm to wind farm.
12 See work package 3.1 appendix E
breach is limited to £20,000 but each turbine is likely to generate profits close to this value each week there can be no incentive for a company to reduce turbine operation to reduce noise.

39. The process of pursuing any complaint regarding noise is based on getting the evidence to prove that a noise offence has taken place. This involves a long process of collecting evidence retrospectively. How, one has to speculate, can noise data, collected retrospectively, be acceptable as evidence in court is difficult for the author to comprehend.

40. There is also the perception among councillors and their officers that legal action under Statutory Nuisance could attract a counter legal action by the operator for loss of income. At the current high level of subsidised income for wind farms this could be in the £millions. The process is complex, as is described in WP 6.1 para 6.20 to 6.23.

41. Currently the local authority’s EHO procedures for investigating wind farm AM noise are based on the model for planning compliance which requires agreement between the EHO and the wind farm operator and/or owner. An investigation into noise complaints should be made, with mutual agreement, by the installation of a noise monitor, paid for and controlled by the wind farm operator. This, in the opinion of the author, is like a gamekeeper asking a poacher to investigate his own nocturnal demeanours. In nuisance independent investigation can proceed but the requirements of the Regulation of Investigatory Powers Act lead to Councils doing this overtly, fully informing the operators on the basis they would not modify their operations and will openly permit any exposure of excess noise impact.

42. Any council officer’s investigation, under these circumstances, could take years. It is suggested, by some, this is exactly what the wind Industry intended by suggesting SN in place of an AM condition at the many planning appeals nationwide.

Summary of Section 3

43. The whole process of using SN for the protection of the community from wind farm noise provides a total disincentive for people to complain when experiencing noise from wind farms. In fact it is a deterrent.

44. The Statutory Nuisance procedure would also cause local councils to be very reluctant to pursue claims on behalf of the affected residents. This is due to legal costs, uncertainty of the caveats within the nuisance laws and the highly possible counter legal action by the wind farm operators. In any event such process will entrench Councils in prolonged and costly action with large financial risks. All these problems are caused or exacerbated by the lack of precise boundaries of responsibility, the complex procedures which arise as an invention of the wind industry acousticians, divisions of responsibility for both the council planning authorities and the wind farm operator through the planning conditions set up at the time of approval; and the concept, adopted by Councils, of first assessing planning compliance before even looking at nuisance.
45. This means there is no specific organisation or person with the active and accountable responsibility to ensure the wind farm is ‘compliant’ within the law at all times or that unacceptable noise is prevented. The responsibility for noise emissions (ETSU, EAM or LFN, etc.) should be stated very clearly as part of the planning approval of wind farms with the responsibilities of the developer/operator of the wind turbines and the local authority being very clearly and legally defined. The authority should not have to consider SN and be able to readily check compliance through a transparent and simpler process. Currently this is not the case.

4. Monitoring AM Noise to Collect Noise Evidence

46. There have been several studies in the world where wind farm noise monitoring has taken place. However there has been only one place in the UK where a noise monitor has been installed to collect all ‘real time’ noise recordings from a wind farm on a continuous and long term basis.

47. The local community around the Cotton Farm Wind Farm, in Cambridgeshire, realised the high likelihood of noise problems contrary to the Planning Inspector who disbelieved problems of EAM would arise. He was wrong and there is no redress for such errors. The community realised Statutory Nuisance would be a very long and drawn out process if noise complaints were made through their local EHOs. They also realised local communities, like theirs, need to find a way of gathering and processing wind farm EAM (and other) noise data for the local authorities to use to ensure compliance by the wind farm operators and in case of noise complaints. They also realised such information would provide no opportunity to obfuscate over the impacts experienced and when people complained, continuous data could be correlated with what was observed. In the case of Cotton Farm the local community funded and installed a noise monitor and meteorological station. This system has been recording all met and noise data from the wind farm and the evidence gathered is proving the wind farm does not operate or perform in accordance with the noise impact assessment produced for the original planning application and reproduced, with modifications, at the planning appeal. In fact the scale and range of EAM noise output and its regularity has surprised everyone.

48. The principle that EHOs’ be able to identify and use evidence immediately is demonstrated by the Cotton Farm monitor. It could, technically, be presented as near instant evidence to the WF operation control centres for immediate shut down of turbines when they breach the ETSU noise limits and, had it been provided, an AM planning conditions. Using the evidence straight away in this manner is both practical and achievable and allows immediate reaction for the operator to keep within the law. This action would

---

13 Wisconsin report 24th Dec 2012. It was carried out by 4 acoustician companies at the same time. Waterloo wind farm, Australia, May 2014.
There is also a long term ongoing study currently being carried out in Sweden.
MAS Environmental. Denver 2013
14 For more details on the CFWF monitoring see WP9 of this report.
prove both the ‘duty of care’ responsibility of local authorities and full compliance by the wind farm operators. Instead the evidence shows continued and serious intrusion of communities for over 2½ years without redress. This objective is particularly relevant at night when EAM noise is usually at its worse and is known to be the cause of sleep deprivation and other, allegedly, more serious, medical conditions.\textsuperscript{15} Having the proven evidence is the only way to ensure the operators are kept within the conditions to operate a wind farm.

49. The lack of protection by the use of an argument that residents can rely on SN has been recognised by other planning inspectors. The Clocaenog Forest wind farm appeal Inspector, Mrs. Wendy Burden, for example, in her September 2014 recommendation letter, stated :-

\begin{quote}
7.94 In considering the issue of noise in Section 4 of my report, I dealt with the potential occurrence of amplitude modulation \textit{in the form that is now recognised as potentially harmful to residential amenity}...........However, the impact of noise on residential amenity is a planning consideration, and it would not be appropriate to rely on the legal process of statutory nuisance to resolve harmful impact on residential amenity if there was a suitable requirement which could be imposed.
\end{quote}

(Author’s emphasis)

50. In his decision letter however, Ed Davey, the Secretary of state for Energy and Climate Change, at the time, stated with regard to this point:-

\begin{quote}
The Secretary of State agrees that the arguments in this case and in respect of this particular issue are finely balanced. He agrees with the ExA’s view that it is not possible to mitigate the impacts of the wind farm on the three properties in question. He considers the matter has been considered appropriately during the examination of the application and that residential amenity is not an issue of sufficient magnitude to justify the withholding of consent given the benefits of the Development. In these circumstances, he considers that the interference with the human rights of the occupants of the three properties would be proportionate and justified in the public interest.
\end{quote}

51. In short, it appears the then Secretary of State (at that time) for the DECC was prepared to risk leaving these people to suffer the prospect of noise problems, loss of sleep, potential ill health and a valueless home trapping them there in perpetuity despite being made aware of the situation by the appeal inspector in her report. The author considers this is an appalling decision.

52. In the Hempnall appeal (Ref No. 2013/0105) the appeal Inspector, in Para 57 stated:

\begin{quote}
57. There is nothing unreasonable in imposing a condition in circumstances where the risk of an [EAM] event occurring could be small, but when it does occur, the potential for disturbance due to it is considerably greater. ................. Statutory Nuisance under Part III of the Environmental Protection Act 1990 represents a higher evidential bar for the Council to overcome than enforcement of a planning condition.
\end{quote}

\textbf{Statutory Nuisance is therefore unlikely to provide a route to resolving an EAM problem. A planning condition is required.}

\textsuperscript{15} See Dr. Chris Hanning’s discussion on health concerns from wind turbine noise in WP3.2
Summary of section 4

53. It is obvious to the author that a reliable, provable AM planning condition is a necessary and essential part of the planning process for WF development approvals. If the national government policy makers, local planning authorities (planning officers and determination panels) and the PINS inspectors at appeals consider the amenity and protection under the law for local populations is important, an effective, simple, understandable and provable AM condition has to be applied.

54. It is also obvious to the author that the use of Statutory Nuisance is increasingly recognised as being unsuitable for controlling EAM noise from WF’s. Reliance on it has left far too many communities suffering without protection. The use of Statutory Nuisance, as recommended by WF developers at appeals, is not the way forward and its suggested use in place of WF planning conditions should be abandoned.

55. While under current legislation it is not possible in any practical sense, apparently, to revisit a planning permission once the development is completed, there is provision to do this before it is built. This, the author suggests, should be pursued by the local authority hosting the Clocaenog Forest Wind Farm project to protect the affected residents. Revisiting an approval is a provision, the author has been led to believe, rarely used and needs the consent of the Secretary of State before it can take effect.

56. This legislation does not help communities already suffering from noisy turbines. A recent study from Cape Bridgewater wind farm, in south-west Victoria, Australia, which has been operating for 6 years, indicates there are grounds for reassessing existing conditions as shown by the evidence of noise effects on the health of people in this WF’s locality.16 The UK, a far more crowded country, is very likely to experience similar, if not worse, conditions.

57. There are ways to help address problems at existing wind farms in the form of a simple and workable Code of Practice which sets out how to investigate and what are relevant indicators of excessive and unreasonable noise. This would formulate a process for future and historical developments.

58. There should be research into the effects of noise on local populations and wild life in the UK as well. Reports from around the world indicate there are causal effects caused by the noise outputs, audible or at our boundaries of audibility, from wind turbines.

---

5. Appendix - (Supplied by the legal department of South Cambs District Council.)

(Independent advice has been received indicating that the South Cambs guidance has a number of flaws and should not be relied upon but it provides an outline of the type of advice given.)

**NUISANCE – GUIDANCE NOTE**

There are two basic types of nuisance in law, Statutory Nuisance and common law nuisance.

**Statutory nuisances**

There is no exact legal definition of a statutory nuisance – it has been described as “nuisance is unacceptable interference with the personal comfort or amenity of neighbours or the nearby community”. The word unacceptable means that which “ordinary decent people would consider unreasonable.” A number of factors are considered as part of this test:

- Location
- Time
- Duration
- Frequency
- Convention
- Difficulty in avoiding the external effects of activity
- Importance and value to the community of activity

For action to be taken, the nuisance complained of must be, or be likely to become, prejudicial to people’s health or interfere with a person's legitimate use and enjoyment of land. This particularly applies to nuisance to neighbours in their homes and gardens. The Environmental Protection Act 1990 and the Public Health Act 1936 lay down certain types of nuisances for which there is a statutory remedy. These include:

- smoke and fumes
- dust
- steam and smells
- piles of rubbish
- animals
- noise
- polluted water (although this is now best dealt with via the Environment Agency)

**How would I know if a nuisance exists?**

You or your local Environmental Health Officer may have received complaints. Not all complaints amount to a statutory nuisance. Your Environmental Health Officer is trained to judge if a statutory nuisance exists. If your Environmental Health Officer assesses that a statutory nuisance exists or is likely to occur, the local authority must serve an abatement notice.

A notice can;

- require the person causing the nuisance to abate the it (i.e. to lessen or reduce the nuisance)
- prohibit or restrict the nuisance
• require works or other steps to abate, restrict or remove the nuisance.

Businesses have a legal defence against legal action from the Local Authority, that they are using the “Best Practicable Means” of controlling the nuisance. This means there may be times when the Local Authority cannot take further action to reduce a nuisance situation.

This defence is not available to businesses if an individual takes an action in common law nuisance, and there is further guidance on this under “Taking Your Own Legal Action” below.

Always discuss statutory nuisance issues with your local authority Environmental Health Officer. An abatement notice is a legal notice and non-compliance could lead to the risk of prosecution, for which the Local Authority may need witnesses.

**What could I do to avoid creating a Statutory Nuisance?**

- Check if your business might cause a nuisance to neighbours by looking for noise, odours and other emissions near the boundary of your site during different operating conditions and at different times of the day. Take all reasonable steps to prevent or minimise a nuisance or a potential nuisance.
- Even if a complaint is not a statutory nuisance, consider if there are simple practical things that you can do to keep the peace.
- Try to establish a good relationship with your neighbours, particularly for transient effects likely to affect them. Advise them in advance if you think a particular operation, such as building work or installing new plant could cause a problem. If neighbours are kept informed they see the business as more considerate and are less likely to make a complaint.
- Make sure there is a good level of 'housekeeping' on your site and that your site manager and staff are aware of the need to avoid nuisances. Regularly check your site for any waste, accumulations, evidence of vermin, noise or smell.
- Avoid or minimise noisy activities, especially at night; pay particular attention to traffic movements, reversing sirens, deliveries, external public address systems and radios.
- Where practical, schedule or restrict noisy activities to the normal working day (for example 8am to 6pm, Monday to Friday and 8am to 1pm on Saturday).
- Consider where noisy operations are done close to site boundaries and relocate them if you can, perhaps further away, or make use of existing buildings/stockpiles/topography as noise barriers.
- Reduce noise levels outside your buildings by increasing insulation to the building fabric and keeping doors and windows closed.
- Ensure that any burglar alarms on your premises have a maintenance contract and a callout agreement.
- Consider replacing any noisy equipment and think about noise emissions when buying new or replacement equipment. Maintain fans and refrigeration equipment.
- Do not have any bonfires; find other ways to re-use or recover wastes.
- Keep abatement equipment, such as filters and cyclones in good working order.
- Ensure boilers, especially oil or solid fuel units, are operating efficiently and do not emit dark smoke during start up.
Common law nuisance
In principle anything (except an Act of Parliament) which stops anyone from exercising and enjoying their rights can be considered to be a common law nuisance. If the nuisance affects the whole neighbourhood, it can be considered to be a public nuisance. This does not always mean that it is something which can easily be stopped!

In the case of an individual nuisance, the remedy is for the individual concerned to sue for damages and/or seek a court injunction in the civil courts to prevent a recurrence of the nuisance.

Unfortunately, for non-statutory nuisance the law does not define exactly what is or is not a nuisance. Furthermore, two people might both consider that the other is creating a nuisance. Who is right? Only a court can decide. The test of reasonableness can be applied. Just because someone complains of a nuisance this does not mean that there necessarily is one

e.g. if someone complains that a neighbour is lighting a bonfire and blowing smoke into his garden, if it is a small amount of smoke for a relatively short time, it is probably not a nuisance as he could reasonably expect them to produce a small amount of smoke going about their legitimate business. On the other hand, if the bonfire burns for weeks producing lots of smoke, then quite possibly it is a nuisance. It might also depend on whether there have been regular bonfires at the same spot in the past.

In any case, for practical purposes nuisance is a matter of subjective judgement, which means that if you are in doubt and if the problem is serious enough it is best to let the Environmental Health Officers from your local council, or a solicitor decide.

Examples of possible nuisances:
- Noisy radios
- Bonfires
- Model aeroplanes
- Shouting or singing
- Offensive language

Taking your own legal action
If, for whatever reason, the local authority cannot take action, or if you do not wish to involve them, you can complain about a nuisance problem direct to the Magistrate’s court under section 82 of the Environmental Protection Act 1990. The Magistrate’s Court will need to be persuaded that the problem amounts to a statutory nuisance.

How to proceed
It is important that you keep a written record of the dates, times and duration of the offending nuisance, as well as a description of its nature and the distress it causes you in the reasonable occupation of your home.
Try and resolve the problem informally before contacting the court, and by writing to the person responsible. If you know where the nuisance is coming from but do not know what or who is causing it, then making contact with the owner or occupier of the premises may work wonders.

If you decide to take action under section 82 of the 1990 Act you must give at least three days’ notice in writing to the person responsible of your intentions, and provide them with details of your complaint. Deliver your notice by post or hand and make sure your letter is dated and you have kept a copy. An example of such a letter would be: [Sample removed]

**Working with the Magistrate’s Court**

When you contact the court, tell them you wish to make a complaint under section 82 of the Environmental Protection Act 1990. You will probably need to visit the court where the procedure will be explained to you and you may be asked for evidence of the problem (such as a nuisance diary). This will show the magistrates that you have an arguable case. You should also let the court know if you have notified the Environmental Health department of the problem.

The court will decide if a summons can be issued, and may ask you to serve it (by hand or by post) on the person responsible for the nuisance, stating the date and time of the court hearing. If you serve the notice, you should keep a careful record and ensure that the notice is served well before the hearing date. When the time comes for the hearing, you will have to attend court to give evidence. Ensure that your records, and those of any other witnesses, are kept up to date and that these witnesses will support you in Court. In Court you will be required to explain your case, produce your diary and any witnesses.

The person responsible for the nuisance will very likely come to the court to defend themselves, and may even make counter-accusations. You do not need to have a solicitor to represent you at the hearing, although you may do so if you wish. You will need to be prepared for the possibility of having to pay the costs of taking the case to court if you are not successful. These costs will include your costs, those of your solicitor if you have one, and any witnesses you may call in support of your case.

**Getting help with costs**

Legal representation is not available for this type of case through the legal aid scheme. However, you may be financially eligible under the ‘Legal Help’ Scheme and this may provide free or subsidised legal advice and assistance in preparation of your case. If you are going to represent your own case, the Clerk of the Court may give you advice and guidance. Alternatively you can contact your local Citizen’s Advice Bureau which may be able to offer assistance.

**The Outcome**

If the court decides in your favour it will make an order requiring the offender to abate the nuisance and specify the measures they will have to take to achieve this. The order may also prohibit or restrict a recurrence of the nuisance. The court may also impose a fine at the same time as making the order.
If the court finds that the nuisance existed at the date of making the complaint, they will award you the reasonable costs incurred by you in bringing the action against the nuisance maker. These costs will be awarded whether or not the nuisance still exists or an abatement order is made. If an order is made the court will generally require the nuisance maker to pay your costs.

If the case is dismissed, you will normally incur your own costs in bringing the case to court and you may incur the costs of the other party.

**If the nuisance persists**
Should the nuisance continue, any person contravening the requirements of an abatement order without reasonable excuse can be found guilty of an offence under the Act and can be fined.
You should keep your record of nuisance occurrences up to date in case the order is being ignored and it proves necessary to return to court. The procedure for initiating a future case will be the same as for the original proceedings.

**Taking civil action**
You can take civil action for noise nuisance at common law by seeking either an injunction to restrain the defendant from continuing the nuisance and/or by issuing a claim for damages or loss. The defence of “best practicable means” is not available for this type of action.

**The cost**
Taking out a civil action can be expensive, so it is highly advisable to seek the advice of a solicitor or the Citizen’s Advice Bureau before going ahead. Advice from a solicitor may be free to those who are financially eligible under the 'Legal Help Scheme'. Under this scheme, a solicitor will be able to give you general advice on whether you will be likely to meet the means and merit tests which apply to applications for full public funding (formerly legal aid) in Civil cases.

**A Nuisance diary.**
Keeping a log of occurrences of nuisance is essential in preparing evidence for court. Start with the following statement:-
“This log is true to the best of my knowledge and belief and I make it knowing that if it tendered in evidence I shall be liable to prosecution if I have wilfully stated anything in it which I know to be false or do not believe to be true.

Only record Nuisance – do not include any other information on your neighbours or their family life (Human Rights Act 1998 Schedule 1 Article 8 and Regulation of Investigatory Powers Act 2000 Part II)
State the address where the nuisance originates from.
You may want to draw up a table showing the date, duration times – from and to, and a description of nuisance and how it affected you.

NB: This guidance note is for general advice only and should not be taken as a definitive statement of the law.