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**Subject:** Public Meeting -Docket No. 2021-02, June 17th

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Dear Presiding Officer Evans & Subcommittee Counsel Turner,

The purpose of the NHSEC's rules regarding sound monitoring are to protect the public from adverse sound impacts. Adverse sound impacts can include continuous sounds as well as intermittent or pulsing sounds, as in the case with industrial wind turbines.

Rule 301.18 (e) specifically outlines how to conduct a sound test and Rule 301.18 (i) outlines the procedure for noise complaint testing. The time interval was given an exclusive line item in Rule 301.18 (e) (6) which specifies a 1/8th second (.125 second interval).

Residents living near Antrim Wind are experiencing adverse noise impacts and the company (Acentech) hired by AWE to conduct sound testing did not adhere to the time interval rule specified by the SEC. Instead they implemented a testing method of their own devise and averaged the sound over a one-hour period. Why would they do this when AWE's comments submitted during the SEC rule making didn't reference one hour averaging or mention averaging at all?

<https://www.nhsec.nh.gov/projects/2014-04/documents/09-17-15-sec-2014-04-letter-eolian-renewable-energy.pdf>

The only reference to a time interval in the SEC Rules is the .125-second interval, which is 1/8<sup>th</sup> of a second. There is NO reference to sound averaging.

Wind turbine noise is not a steady-state condition. The Acentech Report wrongly reported turbine sound emissions as a steady sound and arbitrarily excluded intermittent or pulsing turbine sound emissions from its data set. By using averages, the Acentech Report failed to properly report the impact of the highest levels of sound being caused by the Antrim Wind Facility.

Acentech and AWE clearly have intent to work their data so the noise appears to fall within the limits of the facility's certificate of operation. They know the

turbine noise exceeds the allowable sound limits and this is a way of making the figures appear in compliance. AWE is failing to comply with the SEC rules for complaint sound monitoring. The Sound Monitoring Report submitted by Rand Acoustics, LLC, properly adhered to the requirements of N.H. Admin. R., Site 301.18, and determined that sound from the Antrim Wind facility exceeded allowable noise limits, and therefore corroborated the previously filed noise complaints.

AWE and their attorneys are effectively confusing members of the SEC and their hired expert Mr. Tocci as to appropriate methodologies for measurement and analysis of sound.

A read through the Antrim Wind transcript from the November 23, 2020 public meeting shows several examples.

[https://www.nhsec.nh.gov/agendas-minutes/documents/2015-02\\_2020-11-23\\_transcript\\_public\\_mtg.pdf](https://www.nhsec.nh.gov/agendas-minutes/documents/2015-02_2020-11-23_transcript_public_mtg.pdf)

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**Tocci: "Those measurements that were completed, were completed using the averaging sound level, the equivalent sound level, over I believe it was one hour that they -- or 10 minutes that was used by Acentech. I believe the IEC standard was 10 minutes. That throws into question, well, what is this 125-millisecond measurement all about?"**

**Tocci: "But it was not clear in the standard, in the original Site 301.18 standard, as to how to use that data."**

Mr. Tocci doesn't appear to know if the Accentech report was based on 10 minute or 1 hour averaging. He refers to the "original Site 301.18". There has only been one Site 301.18 and he points out he didn't know how to use it.

On Page 53, Mr. Tocci concluded the Acentech report complied with NHSEC's sound reporting requirements. However, on Page 54, Mr. Tocci recognized that Acentech did not report sound levels at 0.125 second intervals but instead reported one-hour average sound levels. On Page 57 and 59, he testified that he could only "guess" and that **"it's not clear to me in the rules how to use the 125-millisecond data."**

When pressed on this issue by Member Duprey, on Page 60, Mr. Tocci speculated that sound must be measured in 0.125 second intervals but need not be reported in those intervals.

On Page 61, Chairwoman Martin addressing Member Duprey states **"that was my understanding, was that they were actually taken at .125 second intervals, but they were not really used in that way." "But it wasn't clear to me why it would be required to be done that way if it wasn't meant to be used for a purpose that way."**

The transcript at Page 61 also states the purpose of the 0.125 second interval requirement is to ensure that spikes in sound are not missed when conducting sound monitoring

How can the Acentech report comply with the NHSEC's sound reporting requirements when the requirement specifically states .125 second intervals, not one-hour averaging? Why would anyone bother recording .125 second measurements if there were no purpose for the data?

What is the purpose of researching methodologies and procedures for complaints at wind facilities located in other states? The SEC has a set of rules they approved for wind facilities in New Hampshire, where Antrim Wind is located and for which they are obligated to follow. Any deviation from these rules is a failure of the SEC process.

Please also take note the annual sound testing by AWE for Location 4 (Berwick property) is not being conducted by fault of AWE for failure to adhere to the sound test standard. Such testing using the "averaging method" would discredit complaints of noise fluctuations experienced by the property owner.

Thank you for time and attention to this matter.

Nancy Watson  
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