

To: Mrs. Kristi Mogan,

Per our discussion I have attached several documents recommending 40 dBA Leq as the threshold for wind energy projects at homes that are directly or indirectly related to Mr. David Hessler. These are in addition to the documents I provided in an earlier emails providing some of my testimony on the topic of acceptable sound levels from wind energy utilities. All of these documents are available on public access sites but are provide to you for convenience. You have my permission to reproduce or otherwise submit them to other parties for educational (e.g. non-commercial) purposes.

The attached documents include:

1. The NARUC study by Mr. Hessler for Minnesota's PUC.

"Consequently, it would be advisable for any new project to attempt to maintain a mean sound level of 40 dBA or less outside all residences as an ideal design goal." And

Extensive field experience measuring operational projects indicates that sound levels commonly fluctuate by roughly +/- 5 dBA about the mean trend line and that short-lived (10 to 20 minute) spikes on the order of 15 to 20 dBA above the mean are occasionally observed when atmospheric conditions strongly favor the generation and propagation of noise.

2. A paper prepared by Mr. Hessler's father, George Hessler, Sr., and Dr. Paul Schomer, Emeritus Director of the Acoustical Society of America's Technical and Standards committee, through which he has provided oversight to numerous ANSI and other standards published by the Acoustical Society of America, regarding sound and sound measurement of wind turbines.

"Hessler Associates, Inc. has worked on over 70 wind-turbine projects over the last decade and has published a peer-reviewed journal paper recommending a design goal of 40 dBA or less at residences coupled with a maximum legal criterion of 45 dBA, all based mostly on observations and experience. Schomer and Associates, Inc. is a recognized world-wide expert in community noise and also has worked on numerous wind-turbine projects—about equally for project developers and anti-project advocacy groups. Schomer, using a wholly different approach than Hessler, recommends a design goal of 39 dBA at residences to minimize annoyance."

3. A report prepared by for the Wisconsin PSC by Mr. Hessler's and three other acoustical firms of sound levels inside abandoned homes in the Shirley Wind where the occupants had left due to adverse health impacts.

"The four investigating firms are of the opinion that enough evidence and hypotheses have been given herein to classify LFN and infrasound as a serious issue, possibly affecting the future of the industry. It should be addressed beyond the present practice of showing that wind turbine levels are magnitudes below the threshold of hearing at low frequencies."

The references to 40 dBA Leq as the maximum sound level for wind energy utilities in the above documents have been supplemented by newer research showing that high annoyance to wind turbine sounds increases dramatically from a few percent of the population to almost 10% when the sound levels are 40 to 45 dBA Leq or higher. These new studies are covered in the first set of documents I provided.

Richard R. James

"A subset of society should not be forced to bear the cost of a benefit for the larger society."

From: One Page Takings Summary: U.S Constitution and Local Land Use, by: George S. Hawkins, Esq., Stony Brook-Millstone Watershed Association

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