FILE

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5-10-19

Dear Matt,

Please would you add the enclosed L.I.T.E. from Mr Robert Berg, a resident of Seneca County.

In Opposition to IWTs in ~~Seneca County~~

Public Comment

Case Numbers

17-2295-EL-BGN

18-0488-EL-BGN

18-1607-EL-BGN

Thankyou,

Sincerely,

Diane Hudak

6300 TR 151

Seneca County

Tiffin OH 44883

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Opinion

The Advertiser-Tribune

Rob Weaver, editor rweaver@advertiser-tribune.com

LETTER

UNHEARD OF DANGER

I would like to share evidence that infrasound produced by wind turbines is harmful to our health. What is infrasound? This is sometimes referred to as low-frequency sound. It is sound lower than 20 hertz, or cycles, below the "normal" limit of human hearing.

A colleague, who knows me as a retired professor of German at Heidelberg University in Tiffin, made me aware of a broadcast from Nov. 1, 2018, by ZDF, German television, titled "Unerhoerter Laerm" (Unheard and Unheard of Noise). It contains interviews with several German and American physicians and scientists. Their conclusion: Infrasound has negative effects on the strength of heart tissue, on the brain and on the auditory system. I was able to view the broadcast online several times, to translate or summarize parts of it. Here are some of the main points.

The principal focus of the broadcast is the research of Dr. Christian-Friedrich Vahl, a cardiac surgeon at the University Clinics in Mainz, Germany. His team has exposed various sized pieces of live human heart tissue, as well as single heart cells, to infrasound in laboratory conditions. His results have been replicated and show in measurable terms that in all experiments there is a proven reduction of strength of the tissues of the human heart when they are exposed to infrasound signals.

When asked whether other scientists are doing related research, Vahl cited the work of a team of researchers at the Institute for Physiology at the University of Hamburg, Germany, which has shown similar results when working with live rat subjects. He also cites the findings of research on the vessels of the heart by a team of scientists at the University of Rostock, Germany, which shows similar results.

Asked about his stance on wind energy, he said he thinks we need to continue to support wind energy production, but that wind installations must be kept at great enough distances from human habitation and gathering places to assure that we do not endanger people's health.

Dr. Lars Ceranna of the German Federal Bureau for Geoscience and Raw Materials also was interviewed. His team has been monitoring vibrations and infrasound for many years, originally as part of a program to ensure compliance with the Comprehensive Nuclear Test Ban Treaty. He reports they have found there was no measurement norm for frequencies below 20 hertz (infrasound) for wind energy installations; indeed, those sounds had been left unmeasured. His team is correcting that. He has measured infrasound signals from wind turbines as far as 9 miles away from a wind park.

Other researchers presented in the same broadcast indicate negative effects of infrasound. One of them, Professor Simone Kuehn of the University Clinic of Hamburg-Eppendorf, Germany, has conducted research on the effects of infrasound on the brain. Her team found that sounds below the human limit of hearing activate areas in the brain that deal with stress and conflict. Kuehn's team has developed the hypothesis that we can deal with annoying sounds we can hear, for example by moving away from the source of the sound or by using protective devices over our ears. But sounds which we can't hear, such as infrasound, we don't recognize. We are not aware of them, so we can't dismiss them. That may cause stress. The team has also begun studying the exposure to infrasound as a cause of sleep disturbances reported by people who live close to wind parks.

Retired U.S. Army Col. John B. Alexander said various countries have even conducted research on the use of infrasound as a non-lethal weapon, especially during the Cold War era. In the U.S., research on infrasound as a weapon has been reduced due to technical issues and inconsistent test results.

Dr. Alex Salt of the medical school at Washington University in St. Louis is an expert on maladies of the inner ear. His research team has shown that the inner ear reacts to infrasound signals, even very low signals of 5 hertz and lower. The reason is due to the anatomy of the inner ear, which has two types of hair cells that react to sound. Infrasound stimulates only the outer cells, not the inner cells, but it does produce an electric reaction in the ear which is not audible. This may be related to symptoms such as headaches, nausea, sleep interruptions and lack of ability to concentrate. His team has had complaints from wind energy companies denying his results, but he insists that they have been repeated in laboratory conditions.

Since viewing this broadcast and discussing it with others, colleagues have sent me additional documentation of scientific evidence of the dangers that infrasound poses to health. I will present them to the Ohio Power Siting Board.

Robert Berg,
rural Tiffin