Acoustic É0-Experts (RCDM) 18- MAI 2020

1-https://ontario-wind-resistance.org/category/noise/
So the recent study done by acoustician Steven Cooper for Pacific Hydro has set a bomb off amongst the….umm, the wind wankers – an all inclusive category for the acousticians, $800/hour lawyers, PR people, the smirking engineers and administrators of the MOECC and the ERT, the clueless politicians, the sleepy investment bankers.

But success leads to outrageous behaviour. Pac Hydro was assured by its "experts" that nothing would be found; so, acting the bit of the good, green corporate citizen it agreed to have Cooper do the study, and agreed to provide the operational co-operation that is essential to producing accurate data. Curiously they refused to have the study submitted to a professional journal for peer review – perhaps an afterthought – what if he does find something??? No matter, peer review can be done by, well, peers in the field.

And so two of the most respected names in the American acoustical community, Paul Schomer and George Hessler, have published their review of Cooper's study. Hessler has done numerous noise assessments for wind companies. Schomer is Standards Director Acoustical Society of America.

2- The Results of an Acoustic Testing Program, Cape Bridgewater Wind Farm
Prepared for Energy Pacific by Steve Cooper, The Acoustic Group
A Review of this Study and Where It Is Leading
Paul D. Schomer, Ph.D., P.E.; Schomer and Associates, Inc.; Standards Director, Acoustical Society of America
George Hessler, Hessler Associates, Inc.
10 February 2015

3- Steven Cooper's Cape Bridgewater Wind Farm Study the Beginning of the End for the Wind Industry

3- The township has been in **contact with Oza Group**, a local engineering company with noise expertise, and were advised costs could range from $650 to $1,000 per inspection under a bylaw similar to the one in Plympton-Wyoming, which also includes low-frequency analysis and spectral analysis which involves specialized equipment and techniques.
https://www.niagarathisweek.com/news-story/5260813-township-considers-sound-expert-to-deal-with-turbine-complaints/#.VLhE2AK7u3Y.gmail

4- https://ontario-wind-resistance.org/2014/11/24/adverse-health-effects-of-industrial-wind-turbine-noise-how-the-ear-and-brain-process-infrasound/ **Infrasound: More of a Problem Than We Thought?**
Industrial-scale wind turbines generate peak sound pressure levels at infrasonic frequencies, especially between 0.25 and 3 Hz, as the blades pass in front of the tower. Most of us do not experience the energy in this lowest of low-frequency regions as sound; instead, we perceive a variety of other sensations. When present, infrasound can be more of a problem than audible sound. Read full article

5- https://hearinghealthmatters.org/hearingviews/2014/wind-turbine-noise-evidence-health-problems/
Jerry Punch *is an audiologist and professor emeritus at Michigan State University in the Department of Communicative Sciences and Disorders. Since his retirement in 2011, he has become actively involved as a private audiological consultant in areas related to his long-standing interest in community noise.* ***Richard James is an acoustical consultant*** *with over 40 years of experience in industrial noise measurement and control. He served as an adjunct instructor in Michigan State University's Department of Communicative Sciences and Disorders from 1985-2013 and currently serves as an adjunct professor in Central Michigan University's Department of Communication Disorders.*

6- https://hearinghealthmatters.org/hearingviews/2014/wind-turbine-health-problems-noise/
In the final two installments of this three-part series, our goal is to explain the bases for a variety of health complaints that are being associated with the current practice of locating industrial-scale wind turbines as close as 1,200 to 1,500 feet from homes. In areas with a relatively long history of industrial wind turbines (**IWTs), a distance of *at least* 1-1/4 miles (2 kilometers)—**and more in areas with hilly terrain—is now considered necessary to avoid negative impacts on health.

7 - https://ontario-wind-resistance.org/2019/02/09/must-watch-wind-turbine-infrasound-as-a-weapon/

CNN **excerpt:** "A number of US diplomats and their families in Cuba reported hearing bizarre noises in 2016 and 2017 and experienced a range of symptoms such as dizziness, vertigo, and pain and ringing in the ears. US State Department officials initially feared they might have fallen victim to an "acoustic attack" by sonic devices that emitted a powerful beam of energy causing neurological problems. The United States said that 26 American diplomats and family members were affected.There have been a number of studies looking into the possible causes and symptoms of the noises heard by US officials. According to a study published in the medical journal JAMA in March, a majority of 21 affected patients reported problems with memory, concentration, balance, eyesight, hearing, sleeping or headaches that lasted more than three months. Three people eventually needed hearing aids for moderate to severe hearing loss, and others had ringing or pressure in their ears.

8- https://ontario-wind-resistance.org/2011/01/25/media-release-central-bruce-grey-wind-concerns/

Medical scientists are beginning to understand that there is a real problem and that it is related to the low frequency noise emitted by these huge industrial machines.

British **Sleep Medicine specialist, Dr. Christopher Hanning, BSc, MB, BS, MRCS, LRCP, FRCA, MD of University Hospitals of Leicester NHS Trust, says:**

"In my expert opinion, from my knowledge of sleep physiology and a review of the available research, I have no doubt that wind turbine noise emissions cause sleep disturbance and ill health. . . . . . There can be no doubt that groups of industrial wind turbines generate sufficient noise to disturb the sleep and impair the health of those living nearby. . . . Families whose homes were around 900m from wind turbines found that the noise, sleep disturbance, and ill health eventually drove them from their homes."

Another medical expert told the conference "Allowing turbines to be located 550 metres from people's homes is 'insane'". Dr. Alec Salt is Professor of Otolaryngology at Washington University in St Louis. He has a doctorate in cochlear (inner ear) physiology from the University of Birmingham, England with post-doctoral studies at the University of Southampton, England and the National Institute of Environmental Health Sciences in North Carolina. He has analysed the "infrasound" from the wind turbines– sound waves of less than 20 cycles per second. He pointed out that "although you cannot hear such low frequency sound, it is easily detected b

9- https://ontario-wind-resistance.org/2014/11/21/report-avoids-wind-turbine-health-woes/

Homes up to 10 kilometres away were included, diluting the results from those nearby. "The choice of the circle size plays a major role in the result obtained and speaks volumes about the motivation of the author". — Dr. Alex Salt, Professor of Otolaryngology at Washington University School of Medicine.

References:

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2- Wind Turbines Confirmed, The Bruce McPherson Infrasound and Low Frequency Noise Study.

3- Arra I, Lynn H, Barker K, et al. (2014-05-23 11:51:41 UTC) Systematic Review 2013: Association Between Wind Turbines and Human Distress. Cureus 6(5): e183. doi:10.7759/cureus.183.

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5- Cooper, S. The Measurement of Infrasound and Low Frequency Noise for Wind Farms (amended version). 5th International Conference On Wind Turbine Noise Denver 28-30 August 2013. Steven Cooper The Acoustic Group Pty Ltd, Sydney, NSW, 2040.

6- Enbom H & Enbom I (2013) "Infrasound from wind turbines: An overlooked health hazard,"

7- Läkartidningen, vol. 110 pp. 1388-89.

8- Hanning C & Evans A (2012) "Wind turbine noise", British Medical Journal 344, e1527.

9- James R. Opening Statement Nov 18, 2013 hearing. BluEarth Project, Bull Creek, Alberta.

10- Krogh C, Gillis L, N. Kouwen N, and Aramini J. (2011) "WindVOiCe, a self-reporting survey: adverse health effects, industrial wind turbines and the need for vigilance monitoring." Bull. Sci. Tech. Soc. 31 334-339.

11- Kugler K, Wiegrebe L, Grothe B, Kössl M, Gürkov R, Krause E, Drexl M. 2014 Low-frequency sound affects active micromechanics in the human inner ear. R. Soc. open sci. 1: 140166.

12- Nissenbaum M, Armani J & Hanning D. (2012) "Effects of industrial wind turbine noise on sleep and health", Noise and Health 14, 237-243.

13- Phillips C. (2011) "Properly interpreting the epidemiologic evidence about the health effects of industrial wind turbines on nearby residents", Bull. Sci. Tech. Soc. 31 303-315.

14- Salt, Alec N. and Lichtenhan, Jeffery T. "How Does Wind Turbine Noise Affect People? The many ways by which unheard infrasound and low-frequency sound from wind turbines could distress people living nearby are described". Acoustics Today, A publication of the Acoustical Society of America, Vol. 10, Issue 1, Winter, 2014.

10- https://ontario-wind-resistance.org/2013/02/22/studies-show-association-between-turbines-health-effects-report/
Actually, the dangers of infrasound as a weapon were know in 1957 or soon thereafter.
See https://borderlandsciences.org/journal/vol/52/n04/Vassilatos_on_Vladimir_Gavreau.html The other websites that carried this story, have gone off-line, either by lack of interest/funding, or by coersion. We'll never know. One of them was much more detailed. Another site suggests the Nazi's were working on a weapon back in the 2nd World War. http://www.thedailysheeple.com/the-secret-weapon-of-mass-destruction-nobody-admits-to-owning_022013

11https://www.researchgate.net/publication/289070149_Wind_turbine_noise_An_overview_of_acoustical_performance_and_effects_on_residents
Proceedings of Acoustics 2013 – Victor Harbor 17-20 November 2013, Victor Harbor, Australia
Australian Acoustical Society 1
Wind turbine noise: an overview of acoustical performance and effects on residents

12- https://stopthesethings.com/2019/11/14/research-breakthrough-why-pulsing-thumping-wind-turbine-noise-is-so-annoying/
Steven Cooper explains wind turbine noise to Senate Committee.
Research Breakthrough: Why Pulsing, Thumping Wind Turbine Noise Is So Annoying
What has developed in the last 20 months? In this two-part series (today and tomorrow), Mr. Cooper shares his most recent research and findings, which complement our current knowledge regarding the nature of "noise" impacts to real-time victims of wind power.

13- https://stopthesethings.com/2018/10/13/wind-industry-panics-as-class-actions-loom-who-finds-wind-turbine-noise-harmful-to-health/ Wind Industry Panics as Class Actions Loom: WHO Finds Wind Turbine Noise Harmful to Health

14- https://mothersagainstwindturbines.com/tag/acoustics-experts/
Matching of thePROVEN **impacts with defined and accepted human rights is the purpose of this document**.
Matching shows that rights involving:

- Cruel, Inhuman and Degrading Treatment
- Discrimination
- Arbitrary Interference
- Working Conditions
- Family
- Children
- Physical and Mental Health
- Homes and Other Assets

are seemingly being both ignored, and breached.

15- https://mothersagainstwindturbines.com/tag/acoustics-experts/
In the spring of 2010, Falmouth's first of two 1.65 MW wind turbines became operational. The adverse effects were immediate.
The Consensus Building Institute, Falmouth Wind Turbine Option Analysis Process (WTOP)
in 2012 described a toxic real estate zone of 200 residential homes around the turbines.

16- https://www.masterresource.org/wind-turbine-noise-issues/wto-wind-turbine-noise-as-a-health-hazard/
World Health Organization: Wind Turbine Noise as a Health Hazard (opening recognition likely to lead to more acknowledgement)
By Sherri Lange -- October 17, 2018

17- https://au.linkedin.com/in/steven-cooper-9b181857
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REF. & RECHERCHE / GSR (groupe support rapproché RCDM)
Par C.Noel PROPRIO IMPACTÉ RCDM