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Delivered via Email

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Dear Sirs/Madams:

Re: Ministry of the Environment Web Page - "The Sound of Science"

We are the solicitors for Wind Concerns Ontario ("WCO"). WCO has analysed the contents of the Ministry of Environment ("MOE") web page "*The sound of science*": http://www.ene.gov.on.ca/environment/en/blog/STDPROD_089377.html, (the "MOE Web Page") initially posted on August 31, 2011.¹

The apparent purpose of the MOE Web Page is to "educate" the public on matters related to wind turbine noise exposure and human health. As part of its mandate, government is responsible for providing citizens with accurate and appropriate information so they can protect themselves and/or their health.² Furthermore, the Renewable Energy Approval ("REA") process requires full and accurate disclosure of any potential health effects of renewable energy projects. It appears the MOE Web Page communication does not fulfill these responsibilities. At the request of our client we are advising you that the MOE Web Page contains content which is inaccurate and/or could be viewed as negligent misrepresentation(s).

The MOE Web Page states "Ontario law requires wind turbine developments adhere to a 40 decibel noise limit..."³ This statement is inaccurate. As you should be aware, Ontario wind turbine noise guideline limits permit,⁴ and projects are being approved for noise levels of up to 51 dBA at a defined noise receptor.⁵

Furthermore Ontario wind turbine noise guideline limits are only applicable at defined noise receptors. Consequently wind turbine noise is unregulated on private and public property (spaces) where there is no defined noise receptor.

The MOE Web Page content also appears to infer the World Health Organization ("WHO") accepts a wind turbine sound pressure level of 40 decibels is protective of human health.⁶

During 2011 Ontario Environmental Review Tribunal⁷ ("ERT") hearings expert witnesses, including the lead author of the Chief Medical Officer of Health 2010 report,⁸ agreed that the

¹ The sound of science" (MOE Web Page) located at http://www.ene.gov.on.ca/environment/en/blog/STDPROD_089377.html [cited November 20, 2011]

² Health Canada. (2004). Canadian handbook on health impact assessment: Vol.1. The basics. A report of the Federal/Provincial/Territorial Committee on Environmental and Occupational Health. Retrieved from <http://www.who.int/hia/tools/toolkit/whohia063/en/index.html>

³ The sound of science" (MOE Web Page) located at http://www.ene.gov.on.ca/environment/en/blog/STDPROD_089377.html [cited November 20, 2011]

⁴ Noise Guidelines for Wind Farms, Interpretation for Applying MOE NPC Publications to Wind Power Generation Facilities, Ministry of the Environment, October 2008

⁵ Renewable Energy Approval Number 7988-8AVKM5 Issue Date: November 10 2010,

⁶ The sound of science" (MOE Web Page) located at http://www.ene.gov.on.ca/environment/en/blog/STDPROD_089377.html [cited November 20, 2011]

⁷ Erickson v. Director, Ministry of the Environment, Environmental Decision Case Nos. 10-121 and 10-122. Retrieved from <http://www.ert.gov.on.ca/english/decisions/index.htm>

⁸ Erickson v. Director, Ministry of the Environment, Environmental Case Nos. 10-121 and 10-122, Transcript of Dr. G. Rachamin, Mar, 4, 2011

WHO 40 dBA noise limit was not established based on research related to wind turbine noise but rather road, rail and aircraft noise.^{9, 10, 11, 12}

A review and search of the WHO 2009 Night Noise Guidelines¹³ (WHO, 2009) revealed no evidence which supports the position that WHO (2009) considered wind turbine noise. For example, the word “wind” only appears once in WHO (2009) and not in the context of wind turbines.^{14, 15} Furthermore none of leading peer reviewed articles on wind turbine noise and health are referenced in WHO (2009).¹⁶

The MOE Web Page also states: “To help put Ontario’s noise requirements in perspective, we’ve developed an online simulation comparing various sound levels”¹⁷ and invites visitors to watch the video content. The video sound purporting to represent 40 decibels does not appear to be the sound of a wind turbine but rather appears to be the background noise of the sound booth. Based on scientifically peer reviewed and published research it is expected that human perception of; and response to; wind turbine sound at 40 decibels will be markedly different than it will be for other common sources of sound.¹⁸ The content of the MOE Web Page is not an accurate or meaningful demonstration of wind turbine sound at 40 decibels and could be viewed as negligent misrepresentation.

Evidence and expert testimony provided during a 2011 Ontario Environmental Review Tribunal (“ERT”) confirmed wind turbines can harm human health. The July 18, 2011 ERT Decision states:

This case has successfully shown that the debate should not be simplified to one about whether wind turbines can cause harm to humans. The evidence presented to the Tribunal demonstrates that they can, if facilities are placed too close to residents. The debate has now evolved to one of degree.¹⁹

⁹ Erickson v. Director, Ministry of the Environment, Environmental Case Nos. 10-121 and 10-122, Transcript of Dr. D. Shepherd, Feb, 9, 2011

¹⁰ Erickson v. Director, Ministry of the Environment, Environmental Case Nos. 10-121 and 10-122, Transcript of Dr. Christopher Hanning, Feb, 11, 2011

¹¹ Erickson v. Director, Ministry of the Environment, Environmental Decision Case Nos. 10-121 and 10-122, Transcript of Dr. R. McMurtry, Feb, 16, 2011,

¹² Erickson v. Director, Ministry of the Environment, Case Nos. 10-121 and 10-122, Transcript of Dr. W. Colby, Mar, 29, 2011,

¹³ World Health Organization, Night Noise Guidelines for Europe, 2009

¹⁴ Erickson v. Director, Ministry of the Environment, Environmental Decision Case Nos. 10-121 and 10-122, Transcript of Dr. C. Ollson, Mar, 22, 2011, p. 109 l. 6 to l. 14

¹⁵ Erickson v. Director, Ministry of the Environment, Environmental Decision Case Nos. 10-121 and 10-122, Transcript of Dr. C. Ollson, Mar, 22, 2011, p. 112 l. 2 to l. 5

¹⁶ Erickson v. Director, Ministry of the Environment, Environmental Decision Case Nos. 10-121 and 10-122, Transcript of Dr. C. Ollson, Mar, 22, 2011, p. 109, l. 6 to p. 113, l. 15

¹⁷ The sound of science” (MOE Web Page) located at

http://www.ene.gov.on.ca/environment/en/blog/STDPROD_089377.html [cited November 20, 2011]

¹⁸ Pedersen, E., Bakker, R., Bouma, J., & van den Berg, F. (2009), Response to noise from modern wind farms in the Netherlands, Journal of the Acoustical Society of America, 126, 634-643.

¹⁹ Erickson v. Director, Ministry of the Environment, Environmental Decision Case Nos. 10-121 and 10-122. Retrieved from <http://www.ert.gov.on.ca/english/decisions/index.htm>

At the request of our client we are providing the following references to assist the MOE in fulfilling its responsibilities to fully and accurately describe any negative effects on health and safety. The references set out in this letter reflect generally accepted acoustical and psycho-acoustic principles. The references also include ERT evidence and/or testimony provided by witnesses for the Respondents at the ERT hearing (the Ministry of Environment, Suncor Energy Services Inc.).

Respondent witnesses, Drs. Geoff Leventhall and David Colby, both testified that they intended to participate in the Fourth International Meeting on Wind Turbine Noise from April 12-14, 2011.^{20, 21} The Wind Turbine Noise (2011) post-conference report states:

The main effect of daytime wind turbine noise is annoyance. The night time effect is sleep disturbance. These may lead to stress related illness in some people. Work is required in understanding why low levels of wind turbine noise may produce affects which are greater than might be expected from their levels.”²²

ERT witnesses for both the Respondents and the Appellants provided evidence and/or testimony which acknowledged wind turbine sound in Ontario “will” cause annoyance, which is expected to result in stress related health impacts in some individuals.

For example Dr. Geoff Leventhall, ERT witness for Suncor Energy Services Inc., testified that some people *will be* annoyed by the sound of wind turbines at sound pressure levels permitted in Ontario wind turbine projects.²³ [Emphasis added]

Dr. Christopher Ollson, ERT witness for Suncor Energy Services Inc., provided evidence and/or testimony that wind turbine induced annoyance and sleep disturbance occur at sound pressure levels above and below 40 dBA.²⁴

Recently published peer reviewed articles document individuals living in the environs (i.e. within 2km) of wind turbines report lower quality of life and/or reduced sleep quality and/or sleep disturbance.^{25, 26, 27}

²⁰ Erickson v. Director, Ministry of the Environment, Environmental Decision Case Nos. 10-121 and 10-122, Transcript of Dr. G. Leventhall, Mar, 11, 2011

²¹ Erickson v. Director, Ministry of the Environment, Case Nos. 10-121 and 10-122, Transcript of Dr. W. Colby, Mar, 29, 2011,

²² Wind Turbine Noise. (2011). Post conference report. Retrieved from http://www.confweb.org/wtn2011/index.php?option=com_content&view=article&id=70:report&catid=35:information

²³ Erickson v. Director, Ministry of the Environment, Environmental Decision Case Nos. 10-121 and 10-122, Transcript of Dr. G. Leventhall, Mar, 11, 2011

²⁴ Erickson v. Director, Ministry of the Environment, Environmental Case Nos. 10-121 and 10-122, Witness Statement of Dr. Christopher Ollson, January 17, 2011

²⁵ Krogh, CME, (2011), Industrial Wind Turbine Development and Loss of Social Justice? Bulletin of Science Technology & Society 2011 31: 321, DOI: 10.1177/0270467611412550, <http://bst.sagepub.com/content/31/4/321>

²⁶ Krogh, CME, Gillis, L, Kouwen, N, and Aramini, J, (2011), WindVOiCe, a Self-Reporting Survey: Adverse Health Effects, Industrial Wind Turbines, and the Need for Vigilance Monitoring, Bulletin of Science Technology & Society 2011 31: 334, DOI: 10.1177/0270467611412551, <http://bst.sagepub.com/content/31/4/334>

²⁷ Shepherd D, McBride D, Welch D, Dirks KN, Hill EM. Evaluating the impact of wind turbine noise on health-related quality of life. Noise Health 2011;13:333-9.

Peer reviewed findings that wind turbines in the vicinity can lower quality of life of individuals is supported by a Canadian Wind Energy Association (“CanWEA”) media release. The October 14, 2011 CanWEA media release acknowledges wind turbines in the vicinity can cause annoyance for some individuals. The CanWEA media release acknowledges annoyance can have “a significant impact on an individual's quality of life”. The CanWEA media release further advises affected individuals that “it is important” they obtain the services of medical professionals (i.e. consult their doctor).²⁸

ERT witnesses for both the Respondents and the Appellants also provided evidence and/or testimony which acknowledged annoyance, stress and sleep disturbance to be adverse health effects.

The MOE also commissioned and submitted into evidence a report prepared by HGC Engineering. The report refers to existing Ontario wind turbine regulations and noise guidelines and states:

The audible sound from wind turbines, at the levels experienced at typical receptor distances in Ontario, is nonetheless expected to result in a nontrivial percentage of persons being highly annoyed. As with sounds from many sources, research has shown that annoyance associated with sound from wind turbines can be expected to contribute to stress related health impacts in some persons.²⁹

ERT witnesses for both the Respondents and the Appellants provided evidence and/or testimony which acknowledges wind turbine sound may cause annoyance which may result in sleep disturbance and stress. For example a report (coauthored by ERT witnesses Drs. David Colby, Geoff Leventhall, and Robert McCunney) attributes reported wind turbine symptoms (sleep disturbance, headache, tinnitus, ear pressure, dizziness, vertigo, nausea, visual blurring, tachycardia, irritability, problems with concentration and memory, and panic attack episodes associated with sensations of internal pulsation or quivering when awake or asleep) to be the “well known stress effects of exposure to noise.”³⁰

ERT witnesses for both the Respondents and the Appellants provided evidence and/or testimony which acknowledge the reported wind turbine symptoms can be expected to be created via indirect pathways.^{31 32}

²⁸ The Canadian Wind Energy Association, October 14, 2011, The Canadian Wind Energy Association responds to October 14, 2011 statement by Wind Concerns Ontario, Retrieved from http://www.canwea.ca/media/release/release_e.php?newsId=133

²⁹ Howe Gastmeier Chapnik Limited. (2010, December). Low frequency noise and infrasound associated with wind turbine generator systems: A literature review (Final draft, Rfp No. Oss-078696). Mississauga, Ontario, Canada: Ministry of the Environment. Ontario Ministry of Environment Disclosure Document # 34 - Erickson v. Director, Ministry of the Environment (10-121 and 10-122)

³⁰ Colby, W. D., Dobie, R., Leventhall, G., Lipscomb, D. M., McCunney, R. J., Seilo, M. T., & Søndergaard, B. (2009, December). Wind turbine sound and health effects: An expert panel review. Washington, DC: American Wind Energy Association and Canadian Wind Energy Association. [p. 4-3, 4-9, 4-10, 5-3] Ontario Ministry of Environment Disclosure Document # 23 - Erickson v. Director, Ministry of the Environment (10-121 and 10-122)

³¹ Erickson v. Director, Ministry of the Environment, Environmental Decision Case Nos. 10-121 and 10-122, Supplementary Witness Statement of William David Colby, MSc, MD, FRCP(C), Exhibit 52,

ERT witnesses for both the Respondents and the Appellants provided evidence and/or testimony that acknowledge sound pressure levels (i.e. decibels) are not the main consideration when assessing noise health impacts acting via indirect pathways.

For example Dr. Colby, witness for MOE, testified under oath:

I believe that there is no specific wind turbine syndrome, that *there can be stress effects in low levels of noise*. But I've made it abundantly clear from my testimony earlier today that the *noise level is not the only or the main – even the main variable that causes that*.³³ (Emphasis added)

Dr. Leventhall, called by the proponent Suncor, provided evidence which states:

Noise is multidimensional. A one dimensional view of noise is the A - weighting, which considers only levels and neglects frequencies. Another one-dimensional view is to consider only frequencies and neglect levels. Developing the dimensions further, two dimensions include both frequency and level (the spectrum), three dimensions adds in the time variations of the noise, whilst higher dimensions include subjective response.³⁴

The content of the MOE Web Page only considers the sound pressure level (i.e. decibels) dimension,³⁵ omitting discussion of the frequency, time variation and subjective response dimensions of wind turbine sound.

ERT witnesses for both the Respondents and the Appellants provided evidence and/or testimony, including evidence from peer-reviewed published journals, which acknowledge wind turbine sound is perceived to be *more annoying* than transportation noise or industrial noise at comparable sound pressure levels.³⁶ [Emphasis added]

ERT witnesses for both the Respondents and/or the Appellants provided evidence and/or testimony which indicate plausible causes of wind turbine health effects include wind turbine sound characteristics such as amplitude modulation and/or impulse noise and/or audible low

³² Erickson v. Director, Ministry of the Environment, Environmental Decision Case Nos. 10-121 and 10-122, Witness Statement of Dr. R. McMurtry, January 16, 2011

³³ Erickson v. Director, Ministry of the Environment, Case Nos. 10-121 and 10-122, Transcript of Dr. W. Colby, Mar, 29, 2011,

³⁴ Leventhall G. Infrasound from wind turbines: fact, fiction or deception. Can Acoust. 2006;34(2):29-36.,

³⁵ The sound of science” (MOE Web Page) located at http://www.ene.gov.on.ca/environment/en/blog/STDPROD_089377.html [cited November 20, 2011]

³⁶ Pedersen, E., Bakker, R., Bouma, J., & van den Berg, F. (2009), Response to noise from modern wind farms in the Netherlands, Journal of the Acoustical Society of America, 126, 634-643.

frequency sound and/or infrasound and/or tonality and/or lack of night-time abatement.^{37, 38, 39, 40, 41, 42, 43}

Dr. Ollson, on Suncor's behalf, provided evidence stating "What is clear is that some people living near wind turbines experience annoyance due to wind turbines. Swishing, whistling, resounding and pulsating/throbbing were the sound characteristics that were most highly correlated with annoyance by wind turbine noise among respondents who noticed the noise outside their dwellings."⁴⁴ The MOE Web Page videos omit demonstration of annoying wind turbine sound characteristics acknowledged by Dr. Ollson and other ERT witnesses.

Dr. Leventhall, on the proponent Suncor's behalf, provided evidence which discusses wind turbine amplitude modulation (i.e. fluctuating swish) and states:

Attention should be focused on the audio frequency fluctuating swish, *which some people may well find to be very disturbing and stressful, depending on its level.* The usual equivalent level measurements and analyses are incomplete, as these measurements are taken over a time period which is much longer than the fluctuation period and information on the fluctuations is lost. *A time varying sound is more annoying than a steady sound of the same average level and this is accounted for by reducing the permitted level of wind turbine noise.*⁴⁵ [Emphasis added]

Dr. Colby, on the MOE's behalf, also provided evidence which discusses wind turbine amplitude modulation (i.e. swoosh) stating:

It appears that there is no specific Wind Turbine Syndrome, but there are stress effects from low levels of noise, either high frequency or low frequency noise, which affect a

³⁷ Erickson v. Director, Ministry of the Environment, Environmental Decision Case Nos. 10-121 and 10-122, Transcript of Dr. G. Rachamin, Mar, 4, 2011

³⁸ Erickson v. Director, Ministry of the Environment, Environmental Decision Case Nos. 10-121 and 10-122, Dr. Colby's presentation to Nova Scotia Department of Energy on March 4, 2010, Exhibit 90, p.9 p. 18 and p. 29

³⁹ Erickson v. Director, Ministry of the Environment, Environmental Decision Case Nos. 10-121 and 10-122, Transcript of Dr. K. Mundt, Mar, 22, 2011

⁴⁰ Erickson v. Director, Ministry of the Environment, Environmental Decision Case Nos. 10-121 and 10-122, Transcript of Dr. C. Ollson, Mar, 22, 2011

⁴¹ Howe Gastmeier Chapnik Limited. (2010, December). Low frequency noise and infrasound associated with wind turbine generator systems: A literature review (Final draft, Rfp No. Oss-078696). Mississauga, Ontario, Canada: Ministry of the Environment. Ontario Ministry of Environment Disclosure Document # 34 - Erickson v. Director, Ministry of the Environment (10-121 and 10-122)

⁴² Erickson v. Director, Ministry of the Environment, Environmental Decision Case Nos. 10-121 and 10-122, Witness Statement of Dr. R. McMurtry, January 16, 2011

⁴³ Erickson v. Director, Ministry of the Environment, Environmental Decision Case Nos. 10-121 and 10-122, Transcript of Dr. R. Thorne Feb. 9, 2011

⁴⁴ Erickson v. Director, Ministry of the Environment, Environmental Case Nos. 10-121 and 10-122, Witness Statement of Dr. Christopher Ollson, January 17, 2011

⁴⁵ "Infrasound from Wind Turbines: Fact, Fiction or Deception?" by Dr. Leventhall, Exhibit 54, p. 34, para. 4

small number of people. *It is the audible swoosh- swoosh which, when it occurs, is the cause, not infrasound or low frequency noise.*"⁴⁶ [Emphasis added]

For other forms of industrial noise Ontario regulations specify a +5 dB adjustment for a project that contains an audible cyclic variation in sound level such as beating *or other amplitude modulation*.⁴⁷ [Emphasis added] The 5 dB adjustment for amplitude modulation is not applied to Ontario wind farms despite the acknowledgement, by Suncor Energy Services Inc. and MOE witnesses, that wind turbine amplitude modulation is the cause of noise induced stress effects.

Counsel for Suncor Energy Services Inc. submitted into evidence a reference authored by Dr. Geoff Leventhall. In the reference Dr. Leventhall lists wind turbine symptoms documented by Dr. Nina Pierpont which include sleep disturbance, headache, tinnitus, ear pressure, dizziness, vertigo, nausea, visual blurring, tachycardia, irritability, problems with concentration and memory, and panic episodes associated with sensations of internal pulsation or quivering when awake or asleep. Dr. Leventhall then states "I am happy to accept these symptoms, as they have been known to me for many years as the symptoms of extreme psychological stress from environmental noise, *particularly low frequency noise.*"⁴⁸ [Emphasis added]

In reference to low frequency noise recent peer reviewed research confirms that for modern wind turbines:

It is thus beyond any doubt that the *low-frequency* part of the spectrum plays an important role in the noise at the neighbours.⁴⁹ [Emphasis added]

Dr. Kenneth Mundt, ERT witness for Suncor Energy Services Inc., testified under oath that based on his interpretation of the synthesized evidence and the scientific publications the literature suggests the reported wind turbine health effects, such as sleeplessness and headache, are related to audible low frequency noise.⁵⁰

Internal MOE correspondence obtained through a Freedom of Information request; describe low frequency noise from wind turbine projects in Ontario creating uninhabitable living conditions, resulting in "sleep deprivation" and in some cases individuals abandoning their homes.

Mr. Brian Howe, ERT witness for MOE, testified under oath regarding low frequency noise:

... if you are going to have an issue with low frequency sounds, it's much more likely to be in the inside of the home and, in fact, you can get instances where the stars are aligned against you and you have a window that because of the resonant nature of the window,

⁴⁶ Dr. Colby's presentation to Nova Scotia Department of Energy on March 4, 2010, Exhibit 90, p. 18 and p. 29

⁴⁷ Ministry of the Environment, Ontario. (n.d.). Publication NPC-104: Sound level adjustments. Toronto, Ontario, Canada:

⁴⁸ Dr. Leventhall, (2009), "Wind Turbine Syndrome, an Appraisal," Erickson v. Director, Ministry of the Environment (10-121 and 10-122) Exhibit 55 submitted by Suncor Energy Services Inc.

⁴⁹ Møller, H., & Pedersen, C. S. (2011). Low-frequency noise from large wind turbines. *Journal of the Acoustical Society of America*, 129, 3727-3744.

⁵⁰ Transcript of Dr. K. Mundt, Mar, 22, 2011,

actually amplifies the sound at those low frequencies. And so I don't think there's any question if you hear of complaints indoors, then that's a potential concern and obviously should be taken seriously.⁵¹

Research confirms low frequency noise, in general, does not need to be considered "loud" for it to cause annoyance and irritation⁵² and can cause "...immense suffering to those who are unfortunate to be sensitive to low frequency noise" ⁵³ Chronic psycho-physiological damage may result from long-term exposure to low-level low frequency noise.⁵⁴

Due to public concerns Danish authorities are in the process of developing regulations for wind turbine low frequency noise inside of homes.

The MOE commissioned and submitted into ERT evidence a report prepared by HGC Engineering. The HGC Engineering report explicitly states in its recommendations:

Since it is evident that complaints related to low frequency noise from wind turbines often arise from the characteristics of the sound impact indoors, and since the indoor low frequency sound levels and frequency spectra can differ markedly from those outdoors, it is recommended that the MOE consider adopting or developing a protocol to provide guidance for addressing such complaints.⁵⁵

Currently Ontario does not have regulations to protect individuals from the effects of wind turbine amplitude modulation and/or low frequency noise.

Consultants for the MOE, Aercoustics Engineering Limited, state:

Sound emissions from operating wind farms frequently give rise to noise complaints. Most compliance-based noise audits measure hourly "A"-weighted Leq, thereby removing the low-frequency contents of the wind turbine sound. The metric is also insensitive to amplitude modulation and is unsatisfactory when sensitive receptor are annoyed by the low frequency sound and amplitude modulation.⁵⁶

⁵¹ Transcript of Mr. B. Howe, March 30, 2011,

⁵² DeGagne *et al.*, Incorporating Low Frequency Noise Legislation for the Energy Industry in Alberta, Canada Source: Journal of Low Frequency Noise, Vibration and Active Control, Volume 27, Number 2, September 2008 , pp. 105-120(16)

⁵³ A Review of Published research on Low Frequency Noise and Its Effects, Dr. Geoff Leventhall *et al.*, May 2003,
⁵⁴ Leventhall HG. Low frequency noise and annoyance. Noise Health [serial online] 2004 [cited 2009 Dec 31];6:59-72. Available from: <http://www.noiseandhealth.org/text.asp?2004/6/23/59/31663>:

⁵⁵ Howe Gastmeier Chapnik Limited, Low Frequency Noise And Infrasound Associated With Wind Turbine Generator Systems A Literature Review Ontario Ministry Of The Environment Rfp No. Oss-078696 Final Draft, December 10, 2010,

⁵⁶ Richarz, W., Richarz, H., and Gambino, T., (2011), Correlating very low frequency sound pulse to audible wind turbine sound, Aercoustice Engineering Limited, Ontario, Canada, Rome Conference Fourth International Meeting on Wind Turbine Noise Rome Italy 12-14 April 2011

Current Ontario guidelines are based on the A-Weighted Leq metric ⁵⁷ and consequently can be considered unsatisfactory to protect individuals from the health impacts of wind turbine amplitude modulation and/or low frequency noise.

In closing, now that MOE is in possession of this information, as part of its responsibility to fully and accurately describe health issues related to renewable energy projects in Ontario, our client respectfully requests that inaccurate and/or misleading content contained on the MOE Web Page be updated using full and accurate information.

In addition we trust the foregoing information will be provided whenever you are communicating with members of the public on health matters during the Renewable Energy Approval(s) process. In our respectful view, amongst other things, MOE's failure to include such information could be viewed as negligent misrepresentation and be actionable.

Should you have any questions or require additional information please advise.

Yours very truly,

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⁵⁷ Ministry of the Environment, Ontario, Noise Guidelines 2008,