



**Ministry of Health  
and Long-Term Care**

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**MEMORANDUM**

**TO: Medical Officers of Health  
Environmental Health Directors**

**RE: Wind Turbines**

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The Public Health Division, in collaboration with the Ministry of Environment (MOE) and Energy and Infrastructure (MEI) and with the Ontario Agency for Health Protection and Promotion (OAHPP), has reviewed the concerns expressed by some regarding health impacts of wind turbines, specifically wind turbine farms. A status update is being provided at this time so as to support common levels of information and public communication.

Regulation

The Ministry of Environment regulates wind turbines in Ontario. A new regulation came into effect on September 24, 2009, which includes requirements for minimum setbacks for wind turbine farms. These setbacks intend to ensure that the noise level does not exceed 40 decibels at the receptor, approximately the noise level experienced in a quiet office. Further information on wind turbine regulation, including frequently asked questions and answers, may be accessed at <http://www.ene.gov.on.ca/en/business/green-energy/>.

Scientific Review and Research

In response to public concerns about wind turbines, ministry staff in collaboration with Dr. Ray Copes, Director of Environmental and Occupational Health at OAHPP, reviewed the literature on the potential health impact of wind turbines.

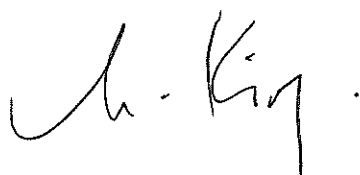
The literature review revealed that while there are anecdotal reports of symptoms such as sleep disturbance, headaches, dizziness, anxiety, concentration and learning problems, and tinnitus, there is no scientific evidence, to date, to demonstrate a causal association between wind turbine noise and adverse health effects. A few Swedish studies reported that noise from wind turbines is annoying to some people.

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Dr. Ray Copes also presented a scientific review of the potential health hazards of wind turbines in a webinar on September 10, 2009. The review concluded that there is no evidence of noise-induced health effects at levels emitted by wind turbines; sound produced by wind turbines is sometimes found to be annoying to some people which may result in stress and sleep disturbance. The presentation slides are available at <http://www.oahpp.ca/whatsnew.php>.

To further address public health concerns about wind turbines, the Ministry of Health and Long-Term Care (MOHLTC) is collaborating with the Ministry of Environment in its efforts to secure an academic research chair to study the potential health effects of renewable energy projects, including wind turbines.

We will continue to provide updates on this issue as new information is received. If you have any questions or need additional information, please contact Tony Amalfa, Manager at 416-327-7624 or [tony.amalfa@ontario.ca](mailto:tony.amalfa@ontario.ca) or Dr. Gloria Rachamin, Toxicologist at 416-327-7424 or [gloria.rachamin@ontario.ca](mailto:gloria.rachamin@ontario.ca) in the Public Health Protection & Prevention Branch, Environmental Health Section.



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- c: Allison J. Stuart, Assistant Deputy Minister (A), Public Health Division
- Dr. David Williams, Associate Chief Medical Officer of Health, Health Protection and Prevention
- Nina Arron, Director, Public Health Protection & Prevention Branch
- Dr. Ray Copes, Director, Environmental and Occupational Health, OAHPP