

Wind Turbine Noise

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In follow-up to a previous article on a state sponsored study (the Report) on the potential adverse health effects, including noise, associated with wind turbines, the Mass. Department of Environmental Protection (DEP) has determined that one of two wind turbines in Falmouth, Mass. (the town) violate the requisite noise standard of 10 decibels (dBA) and should not operate until those levels are reduced. Despite the Report's findings that only certain more sensitive individuals were impacted by sound (more than 1,200-feet away), the proximity of the Falmouth turbines to residences and the age of the turbines contributed to DEP's decision.

At the request of the town, DEP conducted a Sound Sampling Study (the Study) in order to quantify the impact of the turbines both in terms of "worst case" conditions, as well as sound directly attributable to the turbines. Samples were taken in residential neighborhoods and one of the turbines (Turbine #1) was found to operate during the evening hours at a noise level above the 10 dBA threshold. The town, just prior to DEP's Study results being made public, had made a determination that Turbine #1 should not operate during the hours of 7:00 pm and 7:00 am, until such time as the noise level during that period can be reduced to below the 10 dBA threshold.

Pursuant to its regulations found at 310 CMR 7.10 and the state's noise policy; the DEP considers any sound emissions that result in a 10 dBA increase over ambient or background sound levels to be a violation of the noise regulations. However, DEP noted in the Study that its results were specific to the operation of the town's Turbine #1 operating under the specific conditions cited and therefore findings "should not be interpreted, extrapolated or represented as being representative of the sound impacts from any other wind turbine either planned or operating."

While the Study was conducted in response to numerous neighborhood complaints and requests from town officials, the results appear to have satisfied many proponents and opponents. Other wind energy developers have commented that the siting of the town's turbines near residences and the use of older technology have contributed to the noise levels; and that this is not the case with more appropriately located and technologically proficient turbines.

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