STATE OF MAINE
BOARD OF ENVIRONMENTAL PROTECTION

In Re:

RECORD HILL WIND, LLC	)	**AMENDED**
Roxbury, Oxford County	)	**SUMMARY OF THE PROPOSED**
RECORD HILL WIND PROJECT	)	**TESTIMONY OF RICHARD JAMES**
L-24441-24-A-N (approval	)	**AT THE REQUESTED PUBLIC HEARING**
L-24441-TF-B-N (approval)	)	

AMENDED SUMMARY OF THE PROPOSED TESTIMONY OF RICHARD JAMES

1. The Limitations of the Models used in the Record Hill Application to Estimate Operational Noise a Failure to Use Line Source Calculations.

He will testify to his understanding of the uses and limitations of computer models including but not limited to the question of whether the model should use "line-source" or "point-source" calculation methods for the Record Hill Wind Project. This will advance the arguments raised in his earlier testimony. His testimony will be based on ISO 9613-2 and his own modeling experience since the 1970's in using these methods for predicting sound propagation into communities from industrial noise sources. He will support this discussion by reference to recent research and papers written by other experienced users of commercial implementations of the ISO 9613-2 methods such as Cadna/A which was used for the Record Hill Noise Study. He will also testify to the limitations of these methods and how they impact the results of the sound propagation model used by Record Hill Wind, LLC to predict the sound levels in the community of the wind turbine project. He will use the ISO 9613-2 standard to identify limitations to the model's accuracy when used to predict wind turbine sound propagation and discuss the tolerances that must be included in the predicted sound levels to account for these limitations or the conditions that lead to higher sound emissions not addressed and in the Record Hill study. He will also testify to his understanding of the uses and limitations of the IEC 6400-11 standard and the sound power data derived from it for the wind turbine manufacturer and how that also adds to the uncertainty of the predicated sound levels from Record Hill Wind, LLC's model.

2. The Failure to Apply the SDR 5% Penalty.

He will testify to the proper application of the rules and guidelines of the MDEP regulating noise as interpreted by an acoustical engineer with over 35 years of experience addressing community noise for his clients, both industrial and governments, in the US and other countries. This will address MDEP's failure to apply the SDR 5% penalty in the Record Hill

Application and include testimony on the documents and other information used by the MDEP in reaching its decision not to apply this penalty. It will include his experience in measuring SDR's exceeding the thresholds set by the MDEP at other wind turbine utility where complaints about this type of noise has led to formal complaints and threats of litigation.

3. Failure to Consider the Health Effects of Night Time Noise.

He will testify to research he applies to questions of whether nighttime sounds are sufficient to cause adverse health effects. This will include widely accepted guidelines such as those published in 2007 by the World Health Organization's Nighttime Noise Guidelines to which he will testify that the sound levels of the amplitude projected for the residential properties at Roxbury pond are classified by WHO as health risks. He will also testify on his understanding of adverse health effects identified in more recent studies specific to wind turbine noise showing a link between wind turbine sound emissions and adverse health effects on people's organs of balance and other sensitive receptors based on his work with the researchers conducting those studies and his own experience in working with people experiencing those symptoms.

4. The Failure to Provide for Adequate Compliance/ Mitigation Rules.

He will testify as to inherent flaws in the Compliance/Mitigation rules. He will address the technical and procedural flaws in the current wording that will lead to ambiguous results that will not document Compliance, but lead to more confusion. He will also address the failure of the mitigation rules to address Best-Available-Technology and mitigation methods that need to be considered and included in the original design and construction phases of the wind utility.

5. The Flaws in the Stetson Wind Project Operations Compliance Sound Level Study

He will testify that the Stetson Wind Project Operations Compliance Sound Level Study (the "Stetson Report") is flawed and provides no support for the claim that it validates the noise modeling of Resource Systems Engineering ("RSE"), the entity that prepared the Sound Level Assessment for the Record Hill Project. Among the reasons that it is flawed as a validation of RSE modeling are the following: (1) it is not a report by an independent expert; (2) there was no testing protocol established in advance of the field work to guide the field work or to measure the legitimacy of the findings of the field work; (3) the field testing took place at different sites that do not correspond to the pre-construction modeling sites; (4) only one field testing site was downwind of the turbines, even though downwind represents the condition most likely to result in the highest sound levels; (5) in contrast to the Mars Hill four quarter post- construction noise study, the testing for Stetson took place over a period of less than 24 hours; (6) the Stetson Report did not field test under the same conditions assumed in the pre-construction modeling; (7) there are numerous anomalies in the field testing, casting serious doubt about the Report,

including results showing an increase in sound levels at a time when wind turbines were declining in power output and results showing variations in sound levels where constant sound power was presumed; (8) the modeling purported to be validated did not use line source sound propagation although the turbines are arranged in a line along the ridge top; and (9) there was no test data reported or filed addressing concerns about low frequency sound.

QUALIFICATIONS OF RICHARD JAMES

Mr. Richard James is the Principal Consultant for E-Coustic Solutions, of Okemos, Michigan. Mr. James is an acoustical engineer with over 35 years of experience addressing community noise for new and existing industrial and commercial facilities. He is a Full Member of the Institute of Noise Control Engineers. He first joined the Institute in 1973.

Mr. James was the former President of James, Anderson & Associates, Inc., an acoustical consulting firm whose clients included Fortune 100 companies for 23 years. The company grew from the original two partners to a staff of over 40 acoustical engineers, industrial hygienists and technicians. As President, and Principal Consultant, he and his staff developed partnerships with companies such as: General Motors, Ford, Chrysler, Goodyear Rubber Company, Anheuser Busch and Deer and Company, as well as many smaller firms. Services included consulting on community noise issues for existing plants where neighbor's complaints have led to governmental actions against the firms or site selection and planning for new facilities to determine compatibility of the proposed facility and the existing neighborhood.

Mr. James has personally conducted studies throughout the U.S. and Europe for his firm's clients. One of these jobs involved working on behalf of GM over a ten year period to change the Illinois EPA Noise Standard to require a one (1) hour Leq measurement to assess a possible violation of the IEPA Noise Section 901 standards (see Section 900.103(b)). In 2006, Mr. James and his partner, Robert Anderson, closed James, Anderson and Associates, Inc. Mr. James now provides his consulting services through his new firm: E-Coustic Solutions.

In addition to his consulting interests, Mr. James has served as Adjunct to Michigan State University's Department of Communicative and Disorders for 20 years. Until 2006, Mr. James was a voting member of the American National Standards Institute's S12 Committee with oversight responsibilities for acoustical test methods and procedures used to standardize the work of acousticians and noise control engineers for measuring sound and assessing Land-Use-Compatibility.

Since 2006, when the first major wind turbine projects were announced in Michigan, Mr. James has become more involved with this relatively new industrial noise source. His work includes developing siting criteria for county and township governments, conducting acoustical tests of operating wind turbines and pre-construction background sound studies, providing testimony at zoning hearings and public presentations concentrating mainly on Michigan, Ohio, Wisconsin, Illinois , West Virginia, Maine, and Pennsylvania. He also has clients in Oregon, Washington, the U.K. and New Zealand.