

CURRICULUM VITAE

DAVID M. HESSLER

Title: Principal Consultant, Vice-President
Hessler Associates, Inc.

Professional Affiliations: Professional Engineer (P.E.), Commonwealth of Virginia
Member Institute of Noise Control Engineering (INCE)

Education: Bachelor of Science in Mechanical Engineering (B.S.), 1997
Summa cum Laude
A. James Clark School of Engineering
University of Maryland, College Park, MD

Bachelor of Arts (B.A.), 1982
University of Hartford, Hartford, CT

Employer: Hessler Associates, Inc.
38329 Old Mill Way, Unit 8
Ocean View, DE 19970

Years in present position: 28

Office Location: St. George, UT

Current Job Description: Acoustical engineer specializing in the prediction, assessment and mitigation of environmental noise from new and existing power generation and industrial facilities. Typical tasks include:

- Field measurement studies of existing ambient sound levels in the vicinity of proposed project sites
- Computer noise modeling of new facilities prior to construction
- Environmental impact assessments for new projects
- Noise mitigation design studies of new facilities
- Verification measurements of completed facilities
- Diagnostic studies of facilities with existing noise problems
- Design and specification of noise mitigation measures
- Educational lectures on noise issues for private corporations
- Expert witness testimony

General Experience: As an outside consultant to nearly all the major power industry EPC contractors, developers and OEM's, I have been the principal acoustical designer of over 400 power plants and industrial facilities worldwide ranging from a 3900 MW power station in Saudi Arabia to numerous combustion turbine combined cycle plants to refineries and wind turbine projects. Typically, the focus of the work on these projects was to anticipate potential noise impacts at sensitive receptors near the project and recommend practical noise abatement measures to avoid them. In addition, extensive verification measurements in and around the completed power plants and wind farms have been performed to confirm that the design recommendations have been successfully executed.

Wind Turbine Experience: Over the past 16 years I have performed noise impact evaluations and siting optimization studies for roughly 70 large wind turbine projects in the United States, Canada and the Caribbean, involving nearly all current makes and models of wind turbines. I have developed test protocols and conducted long-term field measurement surveys of numerous newly completed wind projects to evaluate compliance with applicable permit conditions, to investigate complaints and/or to verify the accuracy of pre-construction noise modeling. I have carried out field tests of wind turbine sound power level in strict accordance with the IEC 61400-11 test methodology. I have carried out field measurement studies of operating wind turbines to evaluate their low frequency sound emissions, nacelle noise sources and radial directivity characteristics. I have testified as an expert witness at permitting hearings for proposed wind projects. I have attended six bi-annual Wind Turbine Noise conferences organized by INCE Europe.

Representative Papers and Publications:

“Wind Turbine Noise”, Chapter 7 *Measuring and Analyzing Wind Turbine Sound Levels*, Multi-Science Publishing Co., Brentwood, Essex, UK, Jan. 2012. Comprehensive book on all aspects of wind turbine noise. Each chapter written by a recognized expert in that subject.

Teleseminar “Wind Turbine Siting and Best Practices”, National Regulatory Research Institute (NRRI), Invited speaker, Jan. 2012.

“Best Practices Guidelines for Assessing Sound Emissions from Proposed Wind Farms and Measuring the Performance of Completed Projects”, Prepared for the Minnesota Public Utilities Commission under the auspices of the National Association of Regulatory Utility Commissioners (NARUC), Oct. 2011.

“Accounting for Background Noise when Measuring Operational Noise from Wind Turbines”, Fourth International Meeting on Wind Turbine Noise, Rome, Italy, Apr. 2011.

“Recommended noise level design goals and limits at residential receptors for wind turbine developments in the United States”, *Noise Control Engineering Journal*, J.59 (1), January-February 2011.

“Wind tunnel testing of microphone windscreen performance applied to field measurements of wind turbines”, Third International Meeting on Wind Turbine Noise, Aalborg, Denmark, June 2009.

“Experimental study to determine wind-induced noise and windscreen attenuation effects on microphone response for environmental wind turbine and other applications”, *Noise Control Engineering Journal*, J.56, July-August 2008.

Expert Witness Cases:

Before the Washington State Energy Facilities Siting Board (EFSEC) on behalf of Bechtel and the Cherry Point Cogeneration Project, Bellingham, WA, 2003. Permitting support for a proposed combined cycle power plant facility.

Before the Public Service Commission of West Virginia on behalf of the Longview Power Project near Morgantown, WV, 2006. Permitting support for a proposed coal-fired power plant facility.

Before the Pennsylvania Department of Environmental Protection on behalf of Waste Management and the Alliance Sanitary Landfill in Taylor, PA, 2006. Support in defending against a Class Action Lawsuit brought by neighbors of the landfill.

Before the Office of the Attorney General of New York on behalf of the Hudson Valley Community College Cogeneration (Diesel) Plant. Support in defending against a Class Action Lawsuit brought by neighbors.

Before the Hanover County (VA) Board of Supervisors on behalf of Martin Marietta Materials and the Doswell Quarry, 2008. Permitting support for a proposed quarry expansion.

Before the New Hampshire Site Evaluation Committee on behalf of Granite Reliable Power, LLC, 2008. Docket No. 2008, July 2008. Permitting support for a proposed wind turbine project in Northern New Hampshire.

Before the Public Utilities Commission of Ohio, Ohio Power Siting Board on behalf of EverPower Renewables and the Buckeye Wind Project, 2008. Permitting support for a proposed wind turbine project in Ohio.

Before the Wisconsin Public Service Commission on behalf of Clean Wisconsin with regard to the proposed Highland Wind Farm in Forest, WI. Docket No. 2535-CE-100. Engaged as an independent expert to evaluate the Applicant's sound studies and the testimony of opposition groups.

Before the Public Utilities Commission of Ohio, Ohio Power Siting Board on behalf of EverPower Renewables and the Buckeye II Wind Project, 2012. Permitting support for a proposed wind turbine project in Ohio.

Before the Maine State Government Energy, Utilities and Technology Committee on behalf of Patriot Renewables and the Beaver Ridge Wind Project, 2014. Peer review of operational sound testing by others.

Before the South Dakota Public Utilities Commission, serving as an outside expert to the PUC Staff reviewing the noise aspects of the Dakota Range Wind permit application, Docket EL 18-003, June 2018.

Before the South Dakota Public Utilities Commission, serving as an outside expert to the PUC Staff reviewing the noise aspects of the Prevailing Wind Park permit application, Docket EL 18-026, October 2018.

Before the Rhode Island Energy Facility Siting Board, serving as an outside expert to the Town of Burrillville, RI reviewing the noise aspects of the Clear River Energy Center permit application, Docket SB-2015-06, December 2018.