Staff

Key Personnel; Training & Experience

NORMAN R. DOTTI, P. E., P. P.

Principal

Mr. Dotti is a graduate Mechanical Engineer, a Registered Professional Engineer, and a Licensed Professional Planner. As a practicing Acoustical Engineer since 1971, he has over 30 years of direct experience with sound and vibration measurement, analysis, control and engineering project management. He has applied over two decades of electronics, instrumentation and computer programming experience to designing and supplying systems and software for sound and vibration measurement and analysis.

As part of his work he has: conducted hundreds of on-site studies of environmental, architectural and industrial sound and vibration problems; started, developed and managed a group of consulting engineers specializing in noise and vibration control; testified as an expert witness in planning hearings and local, State and Federal courts; worked with experts in other fields on large engineering and architectural projects to integrate sound and vibration controls; designed, programmed and built automated sound and vibration measurement systems for environmental and industrial clients; worked with clients from industry, all levels of government, associations, military, as well as private individuals and community groups.

Professional Experience

2005 - Present
Principal, Russell Acoustics, LLC. Consulting engineering services pertaining to sound and vibration measurement, analysis and control.

1987 - 2004
President, Knorr Associates. Acoustical consulting and management of environment, health and safety information management systems development. Responsible for all company technical and business operations. This includes proposal development, field and laboratory studies, analysis and design, report writing, and testimony.

1979 - 1987
Vice President, Ostergaard Associates. Planned, proposed, managed and conducted architectural, environmental and industrial sound and vibration studies for client projects. Developed field instrumentation for long-term environmental monitoring projects. Planned and managed corporate computer system for word processing and data collection and analysis, including spectrum analyzer interfaces and computer graphics. Testified as an expert witness in acoustics for planning boards and in courts to the Federal level.

1971 - 1979
Manager, Noise & Vibration Services, National Loss Control Service Corporation (NATLSCO). Proposed, started and managed sound and vibration (S&V) consulting group within large multi-national consulting firm. Developed computerized sound lab and company multi-user computer system for engineering. Work included performing and managing S&V projects for environmental, architectural and industrial

clients, including finite element analysis of power plant and submarine systems. Developed and taught training courses for Bruel & Kjaer Instruments (INC I & II) and the OSHA Training Institute.

1968 - 1971
Pilot, U. S. Air Force. U.S.A.F. pilot training, AC-119K combat crew pilot. Holds a Commercial Pilot license with Multi-engine and Instrument ratings.

1965 - 1968
Research Engineer, Underwater Weapons Division, Davidson Laboratory. Computer analysis and modeling of high performance underwater vehicles; DSRV submarine rescue vehicle, Polaris missile, MK-48 torpedo, DENISON hydrofoil boat. Performed original research in the mathematics of modeling complex stability and control systems on digital computers.

Education

Bachelor's degree: Stevens Institute of Technology, Bachelor of Engineering degree, 1968. Machine design, stability and control, computer programming.

Master's degree: New Jersey Institute of Technology, School of Management, Master of Business Administration (MBA) in Management of Technology, 2003

Specialized Postgraduate Courses

Fifth Institute of Noise Control Engineering	Industrial Noise Control (B&K)
Designing Quiet Products (B&K)	Microphones & Accelerometers (B&K)
Acoustic Materials & Structures (B&K)	Designing Digital Filters
Applied Time Series Analysis (GenRad)	Acoustic Modeling (MIT)
Industrial Hygiene Engineering	Industrial Hygiene Toxicology
Reading Speech Spectrograms (MIT)	

Professional Licenses

Licensed Professional Engineer, New Jersey and Illinois

Licensed Professional Planner, New Jersey

Professional Associations, Societies & Memberships

Acoustical Society of America

Audio Engineering Society

Institute of Noise Control Engineers

American Industrial Hygiene Association - Noise Committee

Air Pollution Control Association - TP6 Noise Committee

Illinois Manufacturers Association Noise Advisory Committee - Chairman

National Council of Acoustical Consultants representative to American National Standards Institute S3 Committee on Bio-acoustics

New Jersey Noise Control Regulation Task Force

Research Fellow of the Research and Development Staff of Metrosonics, Inc.

Teaching

Mr. Dotti has developed courses for and taught at the U.S. Department of Labor's OSHA Training Institute, Des Plaines, IL, for over ten years. His Advanced Noise Control course has been presented to hundreds of OSHA industrial hygienists and safety compliance officers, military personnel, Coast Guard

and Postal Service employees and labor and industry representatives.

He also developed the course notes for and taught week-long sound and vibration measurement and control seminars for Bruel & Kjaer Instruments. The Industrial Noise Control I and II courses were taught over a period of six years.

The above courses and custom classes have been prepared for and taught to Federal, State and local government agencies, including the U. S. Navy and the States of Virginia, Kentucky and South Carolina. Classes in sound and vibration measurement and control for industry have been presented to companies including IBM, Borg-Warner and several workers' compensation insurance carriers.

Mr. Dotti was an Adjunct Professor for several years at Montclair State College, where he taught courses in numerical analysis and computer programming.

Representative Projects

Mr. Dotti has managed many of the following projects and has actively participated in the planning, measurement and engineering of all of them:

Environmental Sound

Custom design, construction and installation of computer controlled community noise monitoring systems for industrial plants and other community sources|Test and design of muffler and barrier systems for manufacturing plant fan, process and stand-by equipment noise control|Solid waste transfer station testing and analysis for engineering noise control and permitting|Computer programming for acoustical evaluation of S&V engineering alternatives|Helicopter and fixed wing aircraft sound assessment, measurement and regulation development|Truck and other motor vehicle drive-by tests, road-side barrier design|Long-term measurement of community sound levels and variations, including HUD surveys|Site development community and traffic noise surveys for zoning and planning review|Measurement of interior sound levels from outside sources and acoustical design review of construction details|Property line measurements for regulation compliance

Industrial Sound

Employee noise exposure and OSHA surveys|Engineering noise control measurement and design|Hearing conservation and audiometric testing programs|Computerized noise exposure and audiometric test data analysis|Machinery noise source identification and control|Employee education programs and manuals|Sound level contour mapping.

Architectural Sound

Recording and broadcast studio building and ventilation design|Office sound isolation materials selection and ventilation system (HVAC) modeling and modifications|Conference and classroom voice articulation|Electronic paging and voice re-enforcement systems|Isolation of exterior noise sources; traffic, aircraft, music, manufacturing|Apartment, town house and other residential sound isolation|Identification of exterior noise sources.

Vibration

Finite element analysis of nuclear power plant components for earthquake response|Structure-borne noise generation measurements and analysis of Navy shipboard power supplies and Trident submarine trailing SONAR array|Air conditioning chiller pipe and floor vibration isolation design and test|PATH Journal Square Transportation Center building and cooling tower vibration tests|Semiconductor manufacturing and clean room equipment vibration isolation|Impact isolation of power press and general manufacturing equipment|Measurement and prediction of human response to ground-borne and building vibration |Design and programming of maintenance vibration monitoring systems.

Forensic Acoustics

Expert witness testimony and litigation support|Measurements to determine compliance with local, State and Federal regulations|Expert report review|Identification of contributing sound and vibration sources|Regulation review and development|Enhancement and recovery of tape-recorded conversations|Tape authentication|Speech analysis and speaker identification|Measurement and analysis of live and recorded voice intelligibility and comprehension|Physiological and psychological response to

sound and vibration|Testing of "cordless" telephone in-ear sound levels|Measurement of sound and vibration levels and frequency for determining human detectability and annoyance|Pre- and post-construction building site ambient levels measurement and design of mitigation measures|Re-zoning application surveys|Heliport and helistop sound level assessment|Gunshot measurement and analysis; hearing damage.

Personal Background

Mr. Dotti enjoys teaching and is active in community affairs; he has served as a Captain in his community's volunteer fire department and has been a member for over 25 years.